



Transformative Research in Metabolism (TRiM)
Internal Steering Committee Meeting (ISC)
Friday, July 2, 2021
12:00 to 1:00 p.m. by Zoom
<https://alaska.zoom.us/j/899633093>

Meeting Objectives: Discuss EAC meeting outcomes and recommendations; Revisit outcomes from EAC Focus Group Discussions; Updates on Planning for TRiM's Annual Retreat; and Sharing Program Updates (as time allows)

- 12:00 p.m. Welcome: Chair Khrys Duddleston
- 12:05 p.m. Review and request action on ISC draft meeting agenda, 7.2.2021. Any new items to add?
- 12:05 p.m. Review and request action on ISC draft meeting minutes, 4.30.2021
- 12:10 p.m. Old Business
- External Advisory Committee Meeting, June 1-2.
 - Participant feedback – What were your general impressions?
 - What went well? Were there problem areas?
 - What could we do to improve the EAC meeting next year?
- 12: 20 p.m. Discuss EAC Report and Recommendations (attached in ISC meeting packet)
- Should the Admin Core organize these recommendations into a timeline of short-term, medium, and long-term goals with associated strategies to present at the August ISC meeting for consideration? Other ideas? (Poll)
 - “Organize/sponsor a scientific conference to expand the therapeutic applications of mammalian hibernation to discuss/develop science-based therapies” (EAC recommendation for 2020 and 2021) – Please see notes in meeting packet about potential opportunities from Dr. Margaret Rice, EAC member.
 - Possible dates for scheduling a conference, as recommended by the EAC.
- 12:40 p.m. EAC Focus Group Discussion – Follow-up to SWOT analysis presented by Cecile Lardon (6.25.2021), “Strategic Planning for TRiM Research Success”
- 12:50 p.m. Update on Planning for TRiM's Annual Retreat – Kelly and Denise
- 12:55 p.m. Research Project and Core *Snapshot* Updates - All are invited to share
- 1:00 p.m. Adjourn

Next ISC meeting: Friday, August 27, 12:00 p.m. to 1:00 p.m.

Note: If you would like to present an update at the August ISC meeting, please let Khrys and Denise know.
Thank you!



**Center for Transformative Research in Metabolism (TRiM)
Internal Steering Committee Meeting (ISC), Draft Minutes
Friday, April 30, 2021, 12:00 to 1:00 p.m., Virtual Meeting by Zoom**

Call to order: Dr. Robert Coker, filled in for Chair Khrys Duddleston for the 4.30.2021 meeting. He welcomed all and called the meeting to order at 12:01 p.m.

I. Attendance: UAA representatives present included Brandon Briggs (AIMS Core Leader) and Eric Henderson (AIMS Lab Manager). UAF representatives were Dr. Kelly Drew (TRiM Director and PI), Dr. Robert Coker (Project 3 PI), Dr. Vadim Fedorov (Project 1 PI), Dr. Anya Goropashnaya (Project 1 & Admin Core), Dr. Carl Murphy (Leader, HaMR Core and MIF Manager), Dr. Oivind Toien (HaMR Core), Scott Jerome (HaMR Core), Pat Rivera (Admin Core), Jen Danielson (TRiM external evaluator, Goldstream Group), Hoshi Sugiura (Admin Core), Bahareh Barati (Admin Core), Sheri Coker (Project 3), Daniel Fullmer, Elizabeth Hood, Dawniel Dupee (Admin Core) and Denise Daniello (Admin Core).

II. Agenda, 4.30.2021: Participants were polled to accept the agenda. The agenda was approved by 91% of the attendees with one abstaining. There were no objections.

III. Draft Minutes, 2.26.2021: A motion to approve the minutes was made by Carl and seconded by Brandon with no objections. Minutes were approved.

IV. Old Business: Denise and Kelly summarized the meeting outcomes from the Strategic Advisory Committee (4.21.2021) which included a follow-up meeting with Dr. Nettie La Belle-Hamer, SAC member, who was unable to attend the 4.21.2021 meeting. The SAC meeting discussion focused on two primary topics: (1) Increasing translational research capacity at UAF and UAA and (2) improving successful NIH grant submissions, especially R01 applications. Strategies identified to increase translational research capacity at UAF and UAA include building a promotional campaign focused on using the team science approach to encourage and sustain successful research collaborations; developing stronger relations with ANTHC in research endeavors; and enhancing collaborations with WWAMI by increasing the number of physician clinical researchers through new faculty appointments with an expectation that they will conduct clinical research and by offering training in clinical research for nurse practitioners, physician assistants, and other medical students at WWAMI to build interest and capacity. To increase successful NIH grant submissions and promote a positive image for UAA/UAF research capacity, SAC members recommended UAA/UAF researchers seek out opportunities to serve as Ad Hoc Reviewers on NIH study sections and/or participate in the NIH Early Career Program. During the ISC meeting, Dr. Coker pointed out that a faculty member or investigator must be nominated and approved by NIH to serve as a Regular Member, as one cannot simply volunteer for service. However, an investigator could contact a Scientific Review Officer (SRO) to express interest which may potentially lead to an opportunity to serve as an Ad Hoc member. SAC members suggested that participating faculty could be incentivized through a teaching buyout for NIH Study Section service.

Other SAC recommendations included educating UA biomed administrators about the need to increase translational research capacity; encouraging greater UA administrator communications with NIH program officials; continuing grant writing workshops; providing one-on-one consultant opportunities in grantsmanship; and making use of resources such as the Institute of Translational Health Sciences (ITHS), Mountain West Clinical and Translational Research-Infrastructure program (MW CTR IN), and /or Alaska INBRE's consultants to

provide expert proposal reviews. To this list of recommendations, ISC members added providing protected time to write proposals as vitally important for successful grant submissions.

In addition, the SAC discussed exploring new NIH funding mechanisms that could potentially increase biomedical research opportunities for faculty and students. For example, the new Support for Research Excellence (SuRE) award and the SuRE First award, provide funding to qualifying biomedical research institutions that offer undergraduate degrees in biomedical sciences, receive less than \$6 million in research project grants per year in the last two fiscal years, and have at least 25% undergraduate Pell grant enrollment. While UAF meets the first two eligibility criteria, UAF falls short on the third by having 22% of undergraduates participating in Pell grants (FY17-FY18) and 24% (in FY19-FY20), based on the Integrated Postsecondary Education Data System (IPEDS) database. UAF could benefit from organizing a campaign to raise awareness about Pell grants as more NIH funding mechanisms targeting institutions serving students from disadvantaged backgrounds are expected to use Pell grant participation as an eligibility criterion.

Kelly noted that the SAC recommendations would be shared with the EAC and at the UA Administrator/SAC meeting on June 1.

V. TRiM Spotlight: Dr. Vadim Fedorov, PI for *Post transcriptional mechanisms of muscle atrophy prevention in hibernating mammals (Project 1)*. Since the last ISC meeting, Vadim reported his research activities addressing SA1 and SA2. For SA1, microRNAs were extracted from the muscle of 12 AGS (8 hibernating, 4 summer active) with sequencing completed. Data analysis is in progress. Regarding SA3, ribosomal footprints and RNAs were extracted from the muscle of 12 AGS (8 hibernating, 4 summer active), and the Miseq sequencing run was conducted. The amount and quality of ribosomal footprints were found satisfactory and the full-scale illumine sequencing is being conducted. Vadim noted that these findings will be used to determine which genes are translated during hibernation and arousal, and may be used as a basis for a future R01 research proposal.

In addition, the IDeA Proteomic screen of muscle from hibernating and summer active bears was completed, producing a total of 2300 proteins identified, of which 115 proteins demonstrated significant differences in expression.

Conference abstracts were also submitted. Dr. Goropashnaya submitted an abstract for the One Health, One Future virtual conference at UAF (4.7.2021) with the title “Modulation of gene expression and bone preservation in hibernating black bears.” PI Fedorov with Drs. Goropashnaya, Toien, and Barnes submitted an abstract for a poster presentation titled “Transcriptional Changes and Preservation of Bone Mass in Hibernating Black Bears” for the virtual Experimental Biology 2021 Conference (4.27.2021).

Lastly Drs. Fedorov, Goropashnaya, Toien, Barnes and others published *Transcriptional Changes and Preservation of Bone Mass in Hibernating Black Bears* in Scientific Reports, Volume 2021, on 4.14.2021. The TRiM award was acknowledged.

The Committee also discussed submitting abstracts for the International Hibernation Symposium in Groningen, the Netherlands, August 1-5, 2021. The submission deadline of May 1 was noted however, Bahareh learned that the organizers will accept abstracts until May 8. Oivind, Bahareh, and Kelly plan to submit abstracts. Kelly added that TRiM would cover the cost of travel, pending sufficient carryover funds, for those who submitted abstracts and would like to attend the conference in person. Everyone was invited to attend the conference virtually as well. Dawniel will begin working on registration for those who would like to attend the conference and travel logistics.

VI. TRiM Reporting: Kelly announced that TRiM’s RPPR and SIRS NIH reports were submitted to OGCA for review on 4.29.2021, who will then transmit the reports to NIH on TRiM’s behalf. Kelly thanked everyone for

their efforts in completing the reporting on time. She asked project and core leaders for their assessment of the process. Several leaders commented that they liked the “team” approach to reporting, after the problems were worked through. Oivind and Trey noted that they would appreciate an optional training about using Piestar held a month or two before the reporting time is launched. Others noted unnecessary redundancies in the reporting questions, but these issues seemed to resolve themselves through the team reporting approach.

Committee members were polled for their responses to the following questions:

- Did the Piestar system work well for you?
 - 67% agreed (n=6) / 33% disagreed (n=3)
- Were you satisfied with the process used to draft your research project/core narrative?
 - 89% yes (n=8) / 11% no (n=1)
- How can we improve the Piestar reporting process?
 - Provide a second opportunity to report as it is difficult to remember everything.
 - Allow more time to complete the Piestar modules.

VII. TRiM’s Annual Retreat: Our annual retreat is being planned in collaboration with INBRE for Oct. 2-3 at the Talkeetna Lodge, provided it is safe to meet face-to-face (or virtually if not). The Committee discussed possible topics for TRiM’s annual retreat including: (1) Using the Team Science approach; (2) Biostatistics Training; (3) Comprehensive overview about TRiM and its inner workings; and (4) Research and Core presentations. Kelly noted that TRiM has budgeted funds in GY03 for ITHS to facilitate the team science training at the retreat. The Committee also discussed the merits and challenges of using ITHS to provide biostatistics support (as Bahareh Barati, TRiM’s biostatistician, has accepted a new position) however, using ITHS as a resource may be helpful as TRiM transitions forward.

Below are topics identified for the TRiM Annual Retreat, based on the polling results:

- Principles of Team Science, n=6
- Research and Core Sharing, n=8
- Research Ethics, n=4

VIII. Snapshot Updates: Trey asked the group to provide quick updates. Jen Danielson, Goldstream Group, said she will be reaching out to folks to schedule an interview as part of TRiM’s external evaluation process. Trey shared that his project recently screened 6 people to participate in his clinical trial, with two deemed eligible. Trey plans to do presentations at several senior citizen sites in Fairbanks to increase awareness of this unique opportunity to participate in clinical trial research.

IX. Adjourn – The meeting adjourned at 1:00 p.m.

Next meeting: Friday, June 25, 12:00 noon to 1:00 p.m.

REPORT OF THE EXTERNAL ADVISORY COMMITTEE

1P20GM130443 “Mammalian Hibernation Research- A Path Towards a Center for Transformative Research in Metabolism” – Kelly Drew, Ph.D., Principal Investigator
June, 2021

On June 1-2, 2021, the External Advisory Committee (EAC) met to evaluate progress toward the goals of this COBRE grant since June, 2020. EAC members found progress over the past 12 months to be beyond adequate. Strengths of the program evident during this on-site visit included enthusiasm of the participants, commitment and expertise of the administrative team, facilities including office and laboratory space, recently-approved pilot projects on sled dogs, bears, and the squirrel model of peripheral arterial disease, and the new AGS breeding facility. A significant step in the past year was the designation of TRiM as an official UAF Center.

Nonetheless, multiple challenges were identified. The EAC makes the following recommendations to the TRiM PI and UAF Administration:

- Initiate regular contact with the NIGMS Program Officer to assess whether COBRE is meeting goals with a trajectory for continued funding.
- Educate UA administrators about needs and goals of the Center, how to balance compliance (e.g., teaching, IACUC) vs. productivity, and short- and long-term value of a larger indirect cost recovery stream from research activities for the UA system.
- Work cooperatively to expand and utilize the current animal resource center needed by COBRE investigators to develop pre-clinical animal models to facilitate translation of their findings.
- The UAF Veterinarian Search Committee should actively seek candidates credentialed as Diplomates of the American College of Laboratory Animal Medicine, who would be likely to understand the research needs of the UAF TRiM Center.
- Consider teaching buyout for NIH Study Section service.
- Respond to recent faculty loss and budget cuts as an opportunity to recruit and groom research faculty.
- Increase productivity through more collaborations, both internally and externally.
- Utilize Multi-PI mechanism for collaborative partnerships with established NIH investigators.
- To develop a pipeline of researchers for future development of UA system, UA should exploit its unique geographic, climatological and research resources as an asset to attract researchers at all levels – from undergraduate to established researchers – for short-term visits that may result in recruitments and, importantly, create more external collaborations.
- Consider creation of nationally/internationally-advertised week- to month-long courses on Arctic-oriented research to attract both students and external faculty.
- Consider sponsorship of conferences in collaboration with organizations such as the Gordon Research Conference, Keystone Symposia, etc. or with professional societies with interest in day-length or environmental factors affecting human biology.
- Implement the President’s Professorships that were proposed as part of the TRiM application.
- Utilize “red team”/virtual study sections to pre-review proposals prior to submission.
- Send Specific Aims to EAC members for their feedback at least one month prior to submission; follow up by sharing critiques.
- Potential synergism between Drs. Coker and Federov on muscle in AGS, bears, and humans remains to be exploited. A multi-PI basic science R01 proposal should be considered.
- Monthly or bimonthly check-up on career development plans for all project leaders.
- Regularly discuss productivity and publication obstacles with all project leaders.

- Monthly Zoom meetings between Drs. Drew, Duddleston, and Buck to help the project catch up after the challenges of the past year.
- Cost structure for the AIMS Core should be communicated to Dr. Drew and Ms. Daniello and be transparent to all.
- Request additional two months of salary for the manager of the Advanced Instrumentation and Microbiome Studies (AIMS) Core.
- Continue to partner with Alaska INBRE to develop technical cores, such as an immunohistochemistry and microscopy core that leverages existing equipment to support ongoing projects.

Respectfully submitted,

Detlev Boison, Ph.D., Professor and Vice Chair of Research and Training, Dept of Neurosurgery, RWJMS and New Jersey Medical School at Rutgers, The State University of New Jersey.

Thomas S. Kilduff, Ph.D., Director, Center for Neuroscience, SRI International

David Lathrop, Ph.D., Consulting Scientist and former Chief of the Heart Failure and Arrhythmias Branch, Division of Cardiovascular Sciences, NHLBI/NIH.

Margaret Rice, Ph.D., Professor and Vice Chair for Research, Dept. of Neuroscience and Physiology, NYU Grossman School of Medicine

REPORT OF THE EXTERNAL ADVISORY COMMITTEE

1P20GM130443 “Mammalian Hibernation Research- A Path Towards a Center for Transformative Research in Metabolism” – Kelly Drew, Ph.D., Principal Investigator
June, 2021

To the Administration of the University of Alaska:

On June 1-2, 2021, the External Advisory Committee (EAC) for 1P20GM130443 “Mammalian Hibernation Research- A Path Towards a Center for Transformative Research in Metabolism” met to evaluate progress made since June, 2020 on the achieving the goals of this COBRE grant. EAC members evaluated progress over the past 12 months to be beyond adequate. Strengths of the program evident during this on-site visit included enthusiasm of the participants; the commitment and expertise of the administrative team; the facilities including office and laboratory space; the recently-approved pilot projects on sled dogs, bears, and the squirrel model of peripheral arterial disease; and the new Arctic Ground Squirrel (AGS) breeding facility. A significant step in the past year was the designation of the Center for Transformative Research in Metabolism (TRiM) as an official UAF Center.

Nonetheless, multiple challenges were identified. The EAC makes the following recommendations to the TRiM PI and UAF Administration:

Recommendation:

Work with the UA administration to expand and capitalize on the current animal resource center needed by COBRE investigators to develop pre-clinical animal models and thereby facilitate translation of their findings. Invasive, preclinical models in rats and mice are necessary and will require veterinary leadership that understands and supports this. Consequently, the UAF Veterinarian Search Committee should actively seek candidates credentialed as Diplomates of the American College of Laboratory Animal Medicine, who would be likely to understand the research needs of the UAF TRiM Center.

Multiple challenges were identified; the goal of the coming year is to turn these challenges into opportunities.

Challenge: Limited communication with NIGMS Program Officer to assess whether COBRE is meeting goals with a trajectory for continued funding.

Recommendations:

- Initiate regular contact with the NIGMS Program Officer (currently, Sheila Caldwell) to discuss changes in funding or personnel (e.g., new pilot project leaders).
- The PI should consider copying the Administrative Official in the UAF Office of Grants and Contracts Administration who handles the PI’s NIH submissions as a “best practice” to ensure that they are informed of any communication between the PI and the NIGMS Program Officer.

Challenge: Facilitate an administrative vision at UA that fosters research projects, project leaders, and research faculty.

Recommendation:

- Educate UA administrators about needs and goals of the Center, and how to balance compliance (e.g., teaching, IACUC) vs. productivity, and short- and long-term value of a larger indirect cost recovery stream for the UA system.
- Discuss teaching buyout for NIH Study Section service.

Challenge: Faculty loss and budget cuts.

Recommendation:

Use this as an opportunity to recruit and groom research faculty, which are the backbone of large research programs. Of note: COBRE Director Dr. Drew began as research faculty in IAB.

Challenge: “Pipeline” of researchers for future development of UA system. Recruitment at all levels, from technical staff to graduate students to faculty members.

Recommendations:

UA should better exploit its unique geographic, climatological and research resources as an asset to attract researchers at all levels – from undergraduate to established researchers – for short-term visits that may result in recruitments and, importantly, create more external collaborations. Specifically, UA should consider:

- Creation of nationally/internationally-advertised week- to month-long courses on Arctic-oriented research to attract both students and external faculty, as occurs at Cold Spring Harbor Laboratory, the Marine Biological Laboratory, the Jackson Laboratory, etc.
- Sponsorship of conferences in collaboration with organizations such as the Gordon Research Conference, Keystone Symposia, etc. or with professional societies with interest in day-length or environmental factors affecting human biology such as the American Physiological Society, the Society for Research on Biological Rhythms, the Society for Light Treatment of Biological Rhythms, and/or the Sleep Research Society.
- Implementation of the President’s Professorships that were proposed as part of the TRiM application.

Challenge: The current lack success with R01 or equivalent (DoD, NASA) proposals despite some promising reviews.

Recommendations:

- Utilize “red team”/virtual study sections to pre-review proposals prior to submission.
- Send Aims to EAC members for their feedback at least one month prior to submission; follow up by sharing critiques.
- Potential synergism between Drs. Coker and Fedorov on muscle in AGS, bears, and humans remains to be exploited. A multi-PI basic science R01 proposal should be considered.
- Increase productivity through more collaborations, both internally and externally.
- Utilize Multi-PI mechanism for collaborative partnerships with established NIH investigators.

Challenges: Alaskan State financial exigency and the pandemic. Additional administrative burdens on faculty such as Dr. Duddlestone impact research productivity, e.g., submission of abstracts, manuscripts and grant proposals, which impacts potential indirect cost recovery from grants and contracts.

Recommendations:

Designate and empower a deputy to assume some of the administrative burden and work more aggressively to complete studies and publish results. For example, the postdoctoral fellow on Dr. Duddlestone’s project should have been able to step in and seamlessly present the talk at the EAC meeting if s/he had greater responsibility for the project. Dr. Duddlestone could work with Dr. Buck to practice delegating tasks and on professional development for the team.

Challenge: Communication between and within UAA and UAF, exacerbated by distance and the pandemic.

Recommendations:

- Monthly or bimonthly check-up on career development plans for all project leaders.
- Discuss productivity and publication obstacles with all project leaders.

- Monthly Zoom meetings between Drs. Drew, Duddleston, and Buck to help the project catch up to where it needs to be after the challenges of the past year.
- Cost structure for the AIMS Core should be communicated to Dr. Drew and Ms. Daniello and be transparent to all. New projects and their relevance to COBRE scope should be discussed with COBRE Leader prior to expenditure of funds for personnel and supplies.

Challenge: Expanding user base of TRiM Cores without deviating from the scope of the COBRE grant. Some concern about deviation from scope due to providing COVID-specific and other services.

Recommendations:

- Request additional two months of salary for the manager of the Advanced Instrumentation and Microbiome Studies (AIMS) Core to be leveraged to expand the user base of the AIMS core beyond the current COBRE-specific scope and make the AIMS Core a viable service to a broad, state-wide research community. The larger scope leveraged with institutional support will contribute to the longer-term goal of self-sufficiency and constituent service.
- Continue to partner with AK INBRE to develop technical cores, such as an immunohistochemistry and microscopy core that leverages existing equipment to support ongoing projects.

Respectfully submitted,

Detlev Boison, Ph.D., Professor and Vice Chair of Research and Training, Dept of Neurosurgery, RWJMS and New Jersey Medical School at Rutgers, The State University of New Jersey

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Margaret Rice, Ph.D., Professor and Vice Chair for Research, Dept. of Neuroscience and Physiology, NYU Grossman School of Medicine

From: <rice57@aol.com>
Date: Thu, Jun 17, 2021 at 3:51 PM
Subject: Fwd: Interested in Organizing a Scientific Conference?
To: kdrew@alaska.edu <kdrew@alaska.edu>

K

In case you are looking for sponsorship for a hibernation/metabolism/therapeutics meeting! Might be more straightforward than trying to establish a GRC...

M

-----Original Message-----

From: FASEB SRC <src@faseb.org>
To: rice57@aol.com
Sent: Thu, Jun 17, 2021 3:36 pm
Subject: Interested in Organizing a Scientific Conference?

Submit Your Ideas Today



FASEB's Office of Scientific Meetings and Conferences promotes education in the fields of biological and biomedical sciences. We do this by offering specialized scientific conferences for scientists, faculty, postdoctoral fellows and graduate students in two different formats: [Science Research Conferences](#) and [Catalyst Conferences](#).

Science Research Conferences

The established [Science Research Conference \(SRC\) Series](#) attracts thousands of scientists each year by offering multi-day conferences that focus on specialized niche areas. This year's conferences are virtual, but we're planning for future in-person conferences.

We're looking for leading biomedical researchers to submit proposals for the 2023 SRC series. If you've been thinking about organizing a conference, we encourage you to send in your proposal! Take a look at our [current](#) line-up to get an idea of conference topics that already exist.



Ideal new topics for proposals would include (but are not limited to):

- Behavioral Genetics and Epidemiology
- Brain Injury and Neurovascular Pathologies
- Cardiovascular Differentiation and Development
- Developmental Brain Disorders
- HIV Coinfections and HIV Associated Cancers
- HIV Molecular Virology, Cell Biology, and Drug Development
- Systemic Injury by Environmental Exposure
- Vaccines Against Microbial Diseases

Proposal Deadline: September 28, 2021.

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Our [Catalyst Conferences](#) are short, virtual meetings that are designed to accelerate:

- **Topic Discovery:** Identify emerging biomedical topics and create immediate scientific exchange in the field
- **Community Development:** Researchers focusing on specialized or smaller topics in biology can find a home for their community
- **Career Growth:** Early-career researchers can try their hand arranging a conference, building a skill set they will need as their careers evolve

We still have some openings for the 2021-2022 line up and are seeking organizers to submit ideas for these short, virtual meetings. Topics are considered on a rolling basis so if you're interested, [reach out](#) to the team and let's start a conversation about your idea. Visit our [website](#) to find out more information or contact us at catalysts@faseb.org.

Why You Should Submit a Proposal or Topic

- Be an integral part in advancing research in your field
- Provide an important channel for exchange of information with your field
- Encourage the next generation of junior researchers
- Enhance your ties and reputation in the bioscience research community

Still have questions, feel free to reach out to us at src@faseb.org or catalysts@faseb.org.
