



**UA Center for Transformative Research in Metabolism  
Translational Advisory Committee, Draft Agenda  
Wednesday, June 28, 2023**

**11:30-12:30 a.m., ADT; 12:30-1:30 p.m. PDT; and 2:30-3:30 p.m., CDT**

TAC Meeting Objectives: (1) Welcome and introduce new TAC Chair and member; (2) Dr. Deutz to share findings from his recent bear research; (3) TRiM’s future translational direction using the canine model; and (4) Schedule date/time for next meeting and suggest meeting topics. ). If you are unable to make the meeting or have questions, please email Denise, [dldaniello@alaska.edu](mailto:dldaniello@alaska.edu), or Kriya Dunlap, [kldunlap@alaska.edu](mailto:kldunlap@alaska.edu).

Participants	Attend	Invitees	Attend
Kriya Dunlap			
Nicolaas Deutz			
Katherine Tuttle	Excused		
Daniel Promislow			
Judith Kelleher			
Greg Pietsch			
Kelly Drew			
Denise Daniello			

Time (ADT)	Topic	Lead
11:30 a.m.	<ul style="list-style-type: none"> <li>Welcome and call the meeting to order</li> </ul>	Kriya
11:35 a.m.	<ul style="list-style-type: none"> <li>Introduce new TAC members</li> </ul>	Kriya, Greg, and all
11:45 a.m.	<ul style="list-style-type: none"> <li>Dr. Deutz to share findings from recent hibernating bear research</li> </ul>	Mick
11:55 a.m.	<ul style="list-style-type: none"> <li>Discuss TRiM’s translational research projects: Those in progress and projects on the horizon.</li> </ul>	Kelly and Kriya
12:25 p.m.	<ul style="list-style-type: none"> <li>When do we meet next? What topics should be covered?</li> <li>TAC member updates</li> </ul>	Kriya and All
12:30 p.m.	<ul style="list-style-type: none"> <li>Adjourn</li> </ul>	

TRiM Translational Advisory Committee (TAC) Meeting Notes  
December 13, 2022

**Members Present:** Kelly Drew, PhD; Nicholaas Deutz, PhD, MD; Stacy Rasmus, PhD; Judith Kelliher, PhD; Daniel Promislow, DPhil; and Denise Daniello, MA (ex officio)

**Meeting Purpose:** Discuss using the canine model to build translational research capacity for the Center for TRiM.

**Discussion**

Using the Canine Model for TRiM's Translational Research – Kelly provided context for TRiM's decision to use the canine model for TRiM's translational research. Dr. Trey Coker's departure from UAF was, in part, due to barriers he encountered with his human intervention studies in trying to engage local physicians who are overwhelmed with patient loads. Physician involvement is a critical element for successful human clinical trials. The canine model, Kelly explained, is a better fit for UAF. The Vet Med program provides veterinary diagnostic imaging services and employs veterinarians on staff who can provide veterinary oversight making it possible to conduct canine intervention research. In addition, dogs show similar patterns of aging as humans, especially with regards to brain aging, but at an accelerated pace. Canines can be a natural model for Alzheimer's disease as older dogs are at risk for canine cognitive dysfunction and frailty associated with aging. Frailty, associated with muscle loss, is relevant to TRiM's metabolic research focus for humans and cognitive function. The canine model can produce timely and affordable results and used to inform human clinical trials for testing new drugs to protect against or reverse cognitive decline in age-related disorders.

Vitamin D and Healthy Aging: The Sled Dog Sentinel for the Circumpolar North - Kelly introduced the research being conducted by Dr. Kriya Dunlap, Associate Professor of Biochemistry, UAF and her development of the sled dog model. Kriya's research focuses on testing the role of vitamin D derived from salmon on biomarkers of brain aging and insulin resistance in dogs. Kriya has recently submitted an R03 application to the National Institute on Aging. She proposes that rural people in Alaska, like their dogs, eat a lot of salmon and are subject to similar environmental factors related to diet and solar exposure. Kriya's research proposes that vitamin D from wild salmon can help to promote healthy brain aging. The reviewers were very positive about her model as it may be the first effort to investigate canine cognitive dysfunction (CCD) associated with a nutritional deficiency using an animal model, which has high translational significance. Kriya has accepted an invite to be a TAC member and is considering the role as TAC Chair, Kelly added.

TAC members discussed Kriya's research approach. They provided comments about the use of the canine model including the need to gather more preliminary data for a R01 application, using a MRI with a higher power and field (to measure changes in hippocampal volume), and an expert to interpret MRI images. Kriya plans to use preliminary data gathered from her R03 to submit an R01 application. Another member commented on the use of the CADES (Canine Dementia Scale) questionnaire/rating scale and test to measure anosmia (sense of smell) as strengths of Kriya's research approach. There was also discussion about the rationale for using canine research to solve a human health problem. Kelly noted that dog aging is accelerated and results can be achieved in a couple of years that could take decades to establish in humans at a much lower cost. It was also pointed out that CCD only develops in very old dogs, 11 or 12+ years, and that larger dogs generally do not develop CCD as compared to small to medium sized dogs because they don't live as long.

Role of Environmental Factors – Members suggested using a matched cohort model of dogs and their owners to look at the effect of exercise on overall health; i.e. if a dog is exercised, his owner is probably getting exercise as well. Measuring changes in muscle mass over time in a longitudinal study, or by comparing changes in muscle loss and cognition of young and old dogs, could be other research ideas to explore in the connection between muscle and brain and the correlation between activity and cognitive function.

TAC Committee Membership – Kelly asked members about their interest to continue serving on the TAC, given use of the canine animal model as an intervention platform for translational research. Dr. Deutz said he would be interested in continuing his service provided that the frequency of meetings is not too frequent because his research career plans are also in transition. He noted that the committee does need to meet at least annually. Dr. Stacy Rasmus offered to step down from the Committee as she has new work responsibilities and the focus on animal modeling is outside of her area of expertise. Drs. Judith Kelliher and Daniel Promislow agreed to continue serving. Dr. Tuttle was not present due to travel. Kelly also asked members if they are comfortable with Dr. Kriya Dunlap serving on the TAC as Chair. Everyone unanimously agreed.

Suggested Topics for Next Meeting – Given our infrastructure, discuss what types of translational research can TRiM support in consideration of current and future projects. Dr. Deutz offered to share a summary of his findings from his recent research about hibernating bears at the TAC June 2023 meeting.