

**MICHIGAN STATE**  
**U N I V E R S I T Y**

To: Zach Dirr

Re: Endorsement of Elite Performance Training Philosophy

Zach, it was a pleasure meeting you on June 15<sup>th</sup>, 2022, when you visited the Spartan Motorsport Performance Laboratory with Elliot Cox. I really enjoyed our conversations and greatly for your efforts to improve the health and human performance of race car drivers.

As you know, there is a paucity of scientific peer reviewed literature on the physiological stressors placed on race car drivers. In my humble opinion, the lack of information makes it more difficult for driver-athletes to gain access to proper training/nutrition resources as compared to athletes in more traditional "stick and ball" sports. Further adding to the lack of athlete development resources found in motorsports is the unique stressors placed on driver-athletes which consists of competing in a hot environment while exposed to substantial gravitational forces.

To properly prepare driver-athletes for competition there needs to be a combination of training that maximizes both the pre-motor and motor reaction time. I am glad to hear you are using the Senaptec system as it has been demonstrated in the peer reviewed literature to increase reaction time and response accuracy. Proper use the Senaptec system should increase driver-athlete performance and reduce the incidence of mistakes on track.

In addition to the cognitive motor training you deploy, your sport specific physical training is grounded in the scientific literature to develop both the aerobic capacity and strength of driver-athletes so that they are capable to withstand the physical stressors placed on them during competition.

I have no doubt that your program will improve the human performance and reduce the risk of injury in your clients, and I would be happy to help you anyway I could.

Kind Regards,



**David P. Ferguson PhD FACSM CEP**

Associate Professor  
Department of Kinesiology  
Michigan State University  
308 W. Circle Dr. Room 27S  
East Lansing, MI, 48824  
517-355-4763  
Fergu312@msu.edu



**College of Education**

**Department of  
Kinesiology**

IM Sports Circle  
East Lansing MI 48824-1049

517-355-4736  
Fax: 517-355-1689