Dear Representative,

On behalf of the National Oceanic and Atmospheric Administration (NOAA) National Weather Service (NWS) National Centers for Environmental Prediction (NCEP) Environmental Modeling Center (EMC), I write this letter in strong support of the proposal entitled: “Development of two-way coupling between fire behavior modeling with dynamic biomass burning emissions and air quality within the UFS”.

NOAA/NWS/NCEP/EMC and Dr. Pedro A. Jimenez Munoz’s group at NSF National Center for Atmospheric Research (NSF NCAR) have a longstanding collaborative history focused on the development and enhancement of the National Air Quality Forecasting Capability (NAQFC) and providing essential numerical guidance for air quality forecasting nationwide. We currently collaborate on a variety of initiatives, including the development and enhancement of the unified forecast system (UFS)-based online air quality prediction system, data assimilation, and fire emissions modeling.

Dr. Pedro A. Jimenez’s proposal aligns well with NOAA’s mission to advance air quality forecasting by employing innovative approaches to better simulate wildfire emissions and interactions between weather and air quality or atmospheric chemistry, improve model performance, and refine air quality forecast products. EMC in response to transition to new innovative approaches, will collaborate closely with Dr. Pedro A. Jimenez Munoz should the proposal be funded. This collaboration will not involve funding support from the proposal for activities at EMC.

Our collaborative efforts may include:

* Providing updates and guidance on the use of NOAA’s Unified Forecast System (UFS)-based online air-quality prediction system.
* Providing operational NAQFs necessary for testing a machine learning based downscaling technology and data fusion for refining NAQFC forecast products.
* Preparation and submission of publications and conference presentations to disseminate project results.

These joint activities between EMC and the team from Pedro A. Jimenez Munoz’s group will advance the capabilities of NOAA’s UFS-AQM online systems, significantly improving NAQFC forecast products and enhancing their utility in providing air quality guidance to the public.

We are enthusiastic about the opportunity to collaborate with NSF National Center for Atmospheric Research (NSF NCAR) on the development of two-way coupling between fire behavior modeling with dynamic biomass burning emissions and air quality for further refining NAQFC forecast products and strongly encourage its consideration for funding.

Sincerely,

Jianping Huang, Ph.D.

Physical Scientist and Project Lead of National Air Quality Forecasting Capability

National Oceanic and Atmospheric Administration

National Weather Service/National Centers for Environmental Prediction

Environmental Modeling Center (EMC)