

**State of California
Air Resources Board
Board Item Summary**

**Item # 21-12-2: Preterm Birth, Low Birth Weight, Childhood
Autism, Parkinson's and Alzheimer Disease and
Air Pollution – California Studies**

Staff Recommendation:

The California Air Resources Board (CARB or Board) staff recommends that the Board approve funding of the proposed research contract with the University of California, Los Angeles titled "Preterm Birth, Low Birth Weight, Childhood Autism, Parkinson's and Alzheimer Disease and Air Pollution – California Studies." The execution of this contract will help to support CARB staff by providing health and economic analyses that will help CARB to better determine benefits of air pollution regulations and policies in California.

Discussion:

In April 2020, the Board adopted Resolution 20-13, which directed CARB staff to develop new quantitative and qualitative approaches for our health benefit assessment. A part of this effort is to include a broader range of health outcomes beyond the four outcomes currently analyzed. This proposed study is responsive to the Board direction through the quantification of additional California-specific health outcomes, such as preterm birth associated with air pollution exposure, and their associated economic values. The investigators will be using novel air pollution modeling techniques to better understand public exposures to 3 criteria pollutants and 5 toxic pollutants over the past 20 years. This exposure data will be used to generate effect estimates that associate illnesses with specific increments of air pollution exposure. This study will look at health effects in racial and ethnic subgroups in addition to statewide average population effects. The results of this research will inform the Board's understanding of air pollution public health impacts and will be used to expand CARB's health analyses to better determine the benefits of its regulations and programs.

Summary and Impacts:

The information gained through this contract will support CARB's ability to evaluate the effects of its policies and programs, including a wide range of public health benefits. The project will provide CARB with concentration-response functions that will be used in health impact assessment methodology. Approximately \$1,000,000 is requested to fund this contract. Approval by the Board will authorize staff to put this contract in place to undertake the activities described.