

August 30, 2016

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Chair, NAS NRC DELS-BEST-14-05 Committee
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Dear Professor Hiatt,

I am writing regarding the August 24, 2016 NAS NRC DELS-BEST-14-05 Committee Meeting on “Assessing Toxicologic Risks to Human Subjects Used in Controlled Exposure Studies of Environmental Pollutants” (<http://www8.nationalacademies.org/cp/meetingview.aspx?MeetingID=8840&MeetingNo=6>). Before your NAS NRC Report is finalized, I implore your committee to examine the written and verbal statements regarding the toxicological and mortality risks of fine particulate matter (PM_{2.5}) and diesel PM submitted by Steve Milloy, M.H.S., J.D., John D. Dunn, M.D., J.D., S. Stanley Young, Ph.D., and myself (<http://junkscience.com/2016/08/report-nas-meeting-on-epas-illegal-human-experiments/>). My written comments can be found at this link (<http://junkscience.com/wp-content/uploads/2016/08/Enstrom-Comments-to-NAS-NRC-Toxic-Risks-Committee-082416.pdf>).

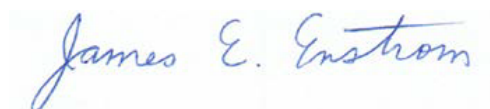
During the past twenty years there have been major challenges to the claim that PM_{2.5} and diesel PM *cause* premature deaths in the United States and California. I presented a detailed summary of scientific problems and misconduct involving PM_{2.5} and diesel PM epidemiology in my August 1, 2009 “None of this is Real” lecture (<https://www.youtube.com/watch?v=Tb1UDEzEBBY>). In addition, I submitted a detailed December 13, 2011 letter to the California Office of Administrative Law which contains my scientific and legal challenges to the 2008 CARB Truck and Bus Regulation, which is largely justified by invalid claims of premature deaths *caused* by PM_{2.5} (http://www.arb.ca.gov/lists/gmbond2011/2-enstrom_letter_to_coal_cornez_re_suspend_carb_diesel_regs_121311.pdf). One of my challenges involves the illegal appointments to the Scientific Review Panel on Toxic Air Contaminants (SRP) of several UC professors, including two from the UCSF School of Medicine, Stanton A. Glantz, Ph.D., and Paul D. Blanc, M.D. (<http://www.scientificintegrityinstitute.org/UCASSRP083115.pdf>).

Since June 2015 I have aggressively attempted to publish in a peer-reviewed journal my above evidence of PM_{2.5} epidemiology misconduct, as well as my new evidence based on original research done this year. This evidence conclusively refutes the US EPA, CARB, and SCAQMD claims that PM_{2.5} *causes* premature deaths in the United States and California. Unfortunately, I was not yet been able to get this evidence published, or even properly peer reviewed, in two submissions to the *New England Journal of Medicine* and in five submissions to *Science*. This evidence is described in detail in the PM_{2.5} portion of the December 15, 2015 National Association of Scholars article “Concerns about National Academy of Sciences and Scientific Dissent” (https://www.nas.org/articles/nas_letter) and in my August 24, 2016 comments cited above. My effort to publish this evidence in a peer-reviewed journal continues.

Please examine the above weblinks and contact me if you would like to discuss any aspect of this request. I have attached a PDF of this email message, which includes a Summary Table of overwhelming 2000-2016 evidence showing NO relationship between PM_{2.5} and total mortality in California.

Thank you very much for your consideration of this important request.

Sincerely yours,



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NAS Ralph J. Cicerone, Ph.D. (UCI)
NAS Bruce M. Alberts, Ph.D. (UCSF)
NAS Geraldine L. Richmond, Ph.D. (UCB)
NAS Susan R. Wessler, Ph.D. (UCR)
NAS Nancy E. Lane, M.D. (UCSF, UCD)
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CARB John R. Balmes, M.D. (UCSF, UCB)
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SRP Michael T. Kleinman, Ph.D. (UCI)
SRP Beate R. Ritz, M.D., Ph.D. (UCLA)
SRP Paul D. Blanc, M.D. (UCSF)
SRP S. Katharine Hammond, Ph.D. (UCB)
OEHHA Melanie A. Marty, Ph.D. (UCD)
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AQMD Frank D. Gilliland, M.D., Ph.D. (USC)
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Comments to NAS NRC DELS-BEST-14-05 Committee
Assessing Toxicologic Risks to Human Subjects Used in Controlled Exposure Studies
of Environmental Pollutants

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New Evidence on the Lack of Lethality of Fine Particulate Matter (PM_{2.5}), the Difficulty of Peer-Reviewing and Publishing This Evidence, and a Request to Fully Access This Evidence

1. Since 2005 I have published, assembled, and presented strong epidemiologic evidence that there is no relationship between PM_{2.5} and total mortality in California. The latest version of this evidence is the attached table with 17 null or essentially null results by many investigators using six different California cohorts (<http://scientificintegrityinstitute.org/NoPMDeaths081516.pdf>).
2. In 2015 a very strong case was made by nine accomplished experts, including myself, that “Particulate Matter Does Not *Cause* Premature Deaths.” It is described in detail in the attached 2015 National Association of Scholars document (https://www.nas.org/articles/nas_letter).
3. During 2016 I have conducted major analyses that do not support the positive nationwide relationship between PM_{2.5} and total mortality found the 1982 American Cancer Society (ACS) Cancer Prevention Study II (CPS II) cohort during 1982-1989, as published in Pope 1995, HEI 2000, and HEI 2009. The null findings in my analyses indicate that the published positive findings are not robust and depend upon the selective use PM_{2.5} data and CPS II subjects.
4. The evidence described above, which is highly relevant to the toxicity and lethality of PM_{2.5} and the public health justification for the PM_{2.5} NAAQS, was immediately rejected for internal or external peer-review by *Science* in five separate submissions since June 2015, including two submissions in July 2016. My efforts continue to peer-review and publish the above evidence.
5. Based on a recent survey conducted by the National Association of Scholars, very few National Academy of Sciences (NAS) members expressed any concern about the suppression of scientific dissent in three key areas, including PM_{2.5} epidemiology, by former *Science* Editor-in-Chief and new NAS President Marcia K. McNutt (https://www.nas.org/articles/nas_letter).
6. I request that the NAS NRC Committee fully assess the evidence on PM_{2.5} described above and in the three major presentations today. I further request that the Committee properly include this evidence in its final assessment of the toxic risks to humans of PM_{2.5} and other pollutants.
7. Finally, in the interest of credibility and transparency, I request that the NAS publish the number of NAS member votes for and against the election of President McNutt. In addition to the total vote, the vote should be shown by state for the 15 states with the most NAS members.

Summary Table. Epidemiologic cohort studies of PM_{2.5} and total mortality in California, 2000-2016
Relative risk of death from all causes (RR and 95% CI) associated with increase of 10 µg/m³ in PM_{2.5}
<http://scientificintegrityinstitute.org/NoPMDeaths112215.pdf>

| | | | | |
|--|---------------------------|-------------|--------------------------|-----------|
| Krewski 2000 & 2010 | CA CPS II Cohort | N=40,408 | RR = 0.872 (0.805-0.944) | 1982-1989 |
| (N=[18,000 M + 22,408 F]; 4 MSAs; 1979-1983 PM _{2.5} ; 44 covariates) | | | | |
| McDonnell 2000 | CA AHSMOG Cohort | N~3,800 | RR ~ 1.00 (0.95 – 1.05) | 1977-1992 |
| (N~[1,347 M + 2,422 F]; SC&SD&SF AB; M RR=1.09(0.98-1.21) & F RR~0.98(0.92-1.03)) | | | | |
| Jerrett 2005 | CPS II Cohort in LA Basin | N=22,905 | RR = 1.11 (0.99 - 1.25) | 1982-2000 |
| (N=22,905 M & F; 267 zip code areas; 1999-2000 PM _{2.5} ; 44 cov + max confounders) | | | | |
| Enstrom 2005 | CA CPS I Cohort | N=35,783 | RR = 1.039 (1.010-1.069) | 1973-1982 |
| (N=[15,573 M + 20,210 F]; 11 counties; 1979-1983 PM _{2.5}) | | | | |
| Enstrom 2006 | CA CPS I Cohort | N=35,783 | RR = 1.061 (1.017-1.106) | 1973-1982 |
| (11 counties; 1979-1983 & 1999-2001 PM _{2.5}) | | | | |
| RR = 0.997 (0.978-1.016) | 1983-2002 | | | |
| Zeger 2008 | MCAPS Cohort “West” | N=3,100,000 | RR = 0.989 (0.970-1.008) | 2000-2005 |
| (N=[1.5 M M + 1.6 M F]; Medicare enrollees in CA+OR+WA (CA=73%); 2000-2005 PM _{2.5}) | | | | |
| Jerrett 2010 | CA CPS II Cohort | N=77,767 | RR ~ 0.994 (0.965-1.025) | 1982-2000 |
| (N=[34,367 M + 43,400 F]; 54 counties; 2000 PM _{2.5} ; KRG ZIP; 20 ind cov+7 eco var; Slide 12) | | | | |
| Krewski 2010 (2009) | CA CPS II Cohort | | | |
| (4 MSAs; 1979-1983 PM _{2.5} ; 44 cov) | | N=40,408 | RR = 0.960 (0.920-1.002) | 1982-2000 |
| (7 MSAs; 1999-2000 PM _{2.5} ; 44 cov) | | N=50,930 | RR = 0.968 (0.916-1.022) | 1982-2000 |
| Jerrett 2011 | CA CPS II Cohort | N=73,609 | RR = 0.994 (0.965-1.024) | 1982-2000 |
| (N=[32,509 M + 41,100 F]; 54 counties; 2000 PM _{2.5} ; KRG ZIP Model; 20 ind cov+7 eco var; Table 28) | | | | |
| Jerrett 2011 | CA CPS II Cohort | N=73,609 | RR = 1.002 (0.992-1.012) | 1982-2000 |
| (N=[32,509 M + 41,100 F]; 54 counties; 2000 PM _{2.5} ; Nine Model Ave; 20 ic+7 ev; Fig 22 & Tab 27-32) | | | | |
| Lipsett 2011 | CA Teachers Cohort | N=73,489 | RR = 1.01 (0.95 – 1.09) | 2000-2005 |
| (N=[73,489 F]; 2000-2005 PM _{2.5}) | | | | |
| Ostro 2011 | CA Teachers Cohort | N=43,220 | RR = 1.06 (0.96 – 1.16) | 2002-2007 |
| (N=[43,220 F]; 2002-2007 PM _{2.5}) | | | | |
| Jerrett 2013 | CA CPS II Cohort | N=73,711 | RR = 1.060 (1.003–1.120) | 1982-2000 |
| (N=[~32,550 M + ~41,161 F]; 54 counties; 2000 PM _{2.5} ; LUR Conurb Model; 42 ind cov+7 eco var+5 metro; Table 6) | | | | |
| Jerrett 2013 | CA CPS II Cohort | N=73,711 | RR = 1.028 (0.957-1.104) | 1982-2000 |
| (same parameters and model as above, except including co-pollutants NO ₂ and Ozone; Table 5) | | | | |
| Ostro 2015 | CA Teachers Cohort | N=101,884 | RR = 1.01 (0.98 -1.05) | 2001-2007 |
| (N=[101,881 F]; 2002-2007 PM _{2.5}) (all natural causes of death) | | | | |
| Thurston 2016 | CA NIH-AARP Cohort | N=160,209 | RR = 1.02 (0.99 -1.04) | 2000-2009 |
| (N=[~95,965 M + ~64,245 F]; full baseline model: PM _{2.5} by zip code; Table 3) (all natural causes of death) | | | | |
| Enstrom 2016 unpub | CA NIH-AARP Cohort | N=160,368 | RR = 1.001 (0.949-1.055) | 2000-2009 |
| (N=[~96,059 M + ~64,309 F]; full baseline model: 2000 PM _{2.5} by county) | | | | |