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To:
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"Strengthening Transparency in Regulatory Science"
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The value of my March 28, 2017 *Dose-Response* reanalysis of fine particulate matter (PM2.5) and total mortality in the ACS Cancer Prevention Study (CPS II) cohort (http://journals.sagepub.com/doi/full/10.1177/1559325817693345) is reinforced by the extensive epidemiologic evidence presented below that there is NO relationship between fine particulate matter (PM2.5) and total mortality in the United States as a whole or in the state of California. Summary Table 1 shows that the meta-analysis summary relative risk for the latest follow-up results from eight major United States cohorts is RR (95% CI) = 1.008 (0.992-1.025). The details for the meta-analysis and these cohorts will be presented in a future publication and on my website (http://www.scientificintegrityinstitute.org/USPM25RR081618.pdf). Summary Table 2 shows that the meta-analysis summary relative risk for the latest follow-up results from six major California cohorts is RR (95% CI) = 0.999 (0.988-1.010). The details for these California cohorts have already been presented in my 2017 reanalysis and other cited sources.

As explained in my May 29, 2018 *Dose-Response* Letter (http://journals.sagepub.com/doi/pdf/10.1177/1559325818769728), Table 3 shows that for the 47 counties with 1979-1983 PM2.5 measurements from both the EPA Inhalable Particulate Network (IPN) and the Health Effects Institute interpretation of the IPN data (HEI) the relative risk (95% confidence interval) declines from RR = 1.081 (1.036-1.128) based on the HEI data to RR = 1.021 (0.984-1.058) based on IPN data. This large RR difference was determined only because I was able to conduct an independent reanalysis of the CPS II cohort data. This is an indication the differences that may exist in the cohorts that have not been independently reanalyzed. In any case, the summary relative risks for the United States and California are consistent with RR = 1.000 and well within the RR difference found in the CPS II cohort.

Both my reanalysis and the extensive null evidence on PM2.5 deaths support of the importance of the proposed EPA Rule "Strengthening Transparency in Regulatory Science," which would make possible independent reanalysis of the "pivotal regulatory science" used as the primary basis for EPA regulations.

Summary Table 1. Epidemiologic cohort studies of $PM_{2.5}$ and total mortality in the United States, 2000-2018
Relative risk of death from all causes (RR and 95% CI) associated with increase of 10 µg/m³ in PM2.5

Study First Author & Year & Table	Cohort	RR	95% CI	F-U Years
Eight United States Cohorts Compiled by Enstrom as of June 11, 2018				
Forthcoming Meta-Analysis of US Cohorts (http://www.scientificintegrityinstitute.org/USPM25RR081618.pdf)				
Lipfert 2000 Table 6 (Enstrom 2005)	Veterans	0.890	(0.850–0.950)	1986-1996
Krewski 2009 Table 34 (Enstrom 2017)	ACS Cancer Prevention (CPS II)	1.014	(0.980-1.049)	1999-2000
Puett 2009 Table 3	Harvard Nurses Health	1.260	(1.020-1.540)	1992-2002
Puett 2011 Table 2	Harvard Health Professionals	0.860	(0.720-1.020)	1989-2002
Lepeule 2012 Table 2	Harvard Six Cities	1.190	(0.910-1.550)	2000-2009
Weichenthal 2015 Table 2	Agricultural Health	0.950	(0.760-1.200)	1993-2009
Thurston 2016 Table 2 & Figure 3	NIH-AARP Diet and Health	1.025	(1.000-1.049)	2000-2009
Parker 2018 Corrected Table 3	National Health Interview Survey	1.016	(0.979-1.054)	1997-2011
Meta-Analysis Summary of Latest Follow-up Results from Eight US Cohorts		**1.008**	**(0.992-1.025)**	

Summary Table 2. 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 PM2.5

Study First Author & Year & Table	Cohort	RR	95% CI	F-U Years
Six California Cohorts Compiled by Enstrom as of March 28, 2017				
Spring 2018 *JAPS* Table 4 (http://www.jpands.org/vol23no1/enstrom.pdf) March 28, 2017 *Dose-Response* Table B1 (http://journals.sagepub.com/doi/full/10.1177/1559325817693345) December 21, 2016 US Office Research Integrity (http://scientificintegrityinstitute.org/Hohmann122116.pdf) November 11, 2016 Summary of PM2.5 Deaths in CA (http://scientificintegrityinstitute.org/Jerrett111116.pdf)				
McDonnell 2000 Table 3 & Text	CA AHSMOG	~ 1.000	(0.950–1.050)	1977-1992
Enstrom 2005 Table 7	CA CPS I	0.997	(0.978-1.016)	1983-2002
Zeger 2008 Table 3	MCAPS "West=CA+OR+WA"	0.989	(0.970-1.008)	2000-2005
Krewski 2010 (re 2009) Table 1	CA CPS II	0.968	(0.916-1.022)	1982-2000
Ostro 2015 Table S3	CA Teachers	1.010	(0.980-1.050)	2001-2007
Thurston 2016 Table 2 & Figure 3	CA NIH-AARP	1.017	(0.990-1.040)	2000-2009
Meta-Analysis Summary of Latest Follow-up Results from Six CA Cohorts		**0.999**	**(0.988-1.010)**	