



Supplementary Materials

Sampling Sites Description

PM_{2.5} samples were collected in 2001 from urban and rural areas in Puerto Rico [1]. The monitoring site at the urban area is close to main commercial port in Puerto Rico, an electrical power plant and an oil refinery that was active during the sampling campaign. The area is characterized by having heavy truck traffic. The rural area is a coastal reference site located in a natural reserve in the northeastern tip of the island [2]. The concentrations of PM_{2.5} during the sampling campaign were $11.6 \pm 0.6 \mu g/m^3$ and $8.5 \pm 0.5 \mu g/m^3$ for the urban and rural sites respectively [1–3]. Our group has previously characterized metal (i.e., As, Cd, Cu, Fe, Ni, Pb, V, Zn) concentrations in PM, non-polar and polar organic extracts [1–3]. All metals except for Fe were higher in samples from the urban site. In addition, our collaborators [4] detected 14 PAHs (m/z 128 to 276) in PM_{2.5} from the urban site. PAHs concentrations ranged from 0.01 ng/m³ for benz(a)anthracene to 0.45 ng/m³ for pyrene. We also measured the endotoxin concentration in the organic extracts as mentioned in the discussion.

References

- 1. Acevedo Figueroa, D.; Rodríguez-Sierra, C.J.; Jiménez-Vélez, B.J. Concentrations of Ni and V, other heavy metals, arsenic, elemental and organic carbon in atmospheric fine particles (PM2.5) from Puerto Rico. *Toxicol. Ind. Health* **2006**, *22*, 87–99. doi:10.1191/0748233706th247oa
- 2. Fuentes-Mattei, E.; Rivera, E.; Gioda, A.; Sánchez-Rivera, D.; Román-Velázquez, R.; Jiménez-Vélez, B.D. Use of human bronchial epithelial cells (BEAS-2B) to study immunological markers resulting from exposure to PM_{2.5} organic extract from Puerto Rico. *Toxicol. Appl. Pharmacol.* **2009**, 243(3), 381–389. doi:10.1016/j.taap.2009.12.009
- 3. Jiménez-Vélez, B.D.; Gioda, A.; Fuentes-Mattei, E. Organic and aqueous extracts from particulate matter (PM_{2.5}) and their effect on immunological response of human bronchial epithelial cells BEAS-2B. *Metal Ions Biol. Med.* **2006**, *9*, 267–272.
- Alvarez-Avilés, O.; Cuadra-Rodríguez, L.; González-Illán, F.; Quiñones-González, J.; Rosario, O. Optimization of a novel method for the organic chemical characterization of atmospheric aerosols based on microwave-assisted extraction combined with stir bar sorptive extraction. *Ana. Chim. Acta.* 2007, 597, 273–281. doi:10.1016/j.aca.2007.07.004



Figure S1. Linear regression analysis from time-course experiments shown in Figure 5, which were used to calculate the IL-6 mRNA half-lives reported in Table 1.



Figure S2. Linear regression analysis from time-course experiments shown in Figure 6, which were used to calculate the CXCL-8 mRNA half-lives reported in Table 1.



© 2019 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (http://creativecommons.org/licenses/by/4.0/).