

Personal Exposure Cloud to Population Health Studies: the Path from ESE Grad Student to RTI Fellow



ESE Distinguished Alumni Award Recipient

Charles E. Rodes, PhD

Senior Fellow

Engineering Technology Unit

RTI International

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ABSTRACT

As a PhD engineering student in Environmental Sciences and Engineering under Rich Kamens from 1988 to 1992, I focused on a topic area (characterizing exposures at the personal level) that I envisioned would help define the importance of the topic from many perspectives. My prior 23 year career at EPA laid the groundwork for the research path. In the 15 years following my PhD I expanded to a new career at RTI that centered around aerosol stressor exposures. That body of work has been fairly successful (40+ papers, 3 book chapters) and helped to define the importance of the topic area as a critical risk characterization link for health-based population studies for both EPA and NIH.

Importantly, these accomplishments not only formed a technological experience base, but they prodded me to consider the broader focus that evolved from bench sciences into programs and policy requirements. My election to the RTI Fellow program in 2007 was based in part on technical accomplishments and in part on the projected ability to transition research skills into bigger pictures that have a greater reach for the Institute and the clients we help. While I certainly can't take complete credit, the recent recognition by leading epidemiologists planning the NIH's National Childrens Study (100,000 children followed over 21 years) that personal level exposures comprise the "gold standard" against which to characterize exposure biases was very gratifying.

This talk will highlight some of the focused technical successes from my days in the department working on my PhD, through a series of interesting exposure panel studies at RTI doing bench science, and up to the present day as a Fellow. I'll describe decision points along the way that were career-altering, and also highlight how support from colleagues and programs has been enormously beneficial in getting me this far.