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The Linkage Between Environmental Geochemical Processes and Human Health in a Changing Climate - *H.C. Urey Award Lecture*

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Climate change is the one of the most vexing and consequential challenges of the 21st century. More intense storms, flooding, higher temperatures, sea level rise, wildfires, droughts, permafrost melting, and biodiversity loss are some of the major impacts of environmental change. Their effects on environmental geochemical processes and reactions in natural systems, such as soils, are inextricably tied to human health. This presentation will focus on impacts of drought on transport and toxicity of soil particulates and metal contaminants, wildfires on redox transformations of geogenic elements, and sea level rise and flooding on toxic metal(loid) speciation and nutrient cycling. The geochemical aspects of these environmental change phenomena will be linked to human health as well as social issues.