

CHEMICAL CONTAMINANTS IN TRADITION FOODS: BEFORE AND AFTER THE WILDFIRES. **Xiufen Lu**<sup>1</sup> and X. Chris Le<sup>1,2</sup>, <sup>1</sup>Division of Analytical and Environmental Toxicology, Department of Laboratory Medicine and Pathology, Faculty of Medicine and Dentistry, University of Alberta, Alberta T6G 2G3, Canada; <sup>2</sup>Department of Chemistry, Faculty of Science, University of Alberta, Edmonton, AB, T6G 2G2, Canada. (xlu@ualberta.ca)

On May 1, 2016, a wildfire began southwest of Fort McMurray, Alberta, and the wildfire destroyed more than 2000 homes and buildings. Burning of the CCA treated wood resulted in the release of arsenic, copper, and chromium to the environment. There were substantial concerns over the effect of wildfires on air, water, and food quality. To address the concern of potential effect of the wildfires on local food, our study focused on the determination of metals and metalloids in local food. we analyzed fish, berry, and vegetable samples collected from Fort McMurray and Farmers Market Edmonton in 2014, 2015, 2016, 2017 and 2018. Inductively coupled plasma mass spectrometry (ICPMS) was used for the analysis. There was no significant difference in the arsenic concentrations between fish samples collected before and after the wildfires. We also compared the arsenic concentrations between fish samples collected from northern Alberta and from other Lakes in Alberta, and berry samples collected in 2014, 2015, 2016 and 2017 with vegetable samples purchased from Edmonton farmers markets. There was no significant difference. These results suggest that concentrations of arsenic in local fish and berries were not increased by the wildfires of 2016.