| Name/Surname | | Steven M. RAPPAPORT, Professor |
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| Affiliation | | Division of Environmental Health, School of Public Health, Univ. of California, Berkeley, Berkeley, CA, USA |
| IARC Host Group | | Biomarkers Group (BMA), IARC, Dr A. Scalbert |
| Speciality | | Profiling biomarkers in studies of human exposure, investigating relationships between chemical exposures and biomarker levels, statistical approaches for evaluating exposures, developing state-of-the-art methods for measuring macromolecular adducts in biological samples. |
| Academic Degrees | | B.S. 1969 (Chemistry), University of Illinois, Urbana, IL, USA, MSPH 1973, PhD 1974 (Environmental Science and Engineering), University of North Carolina, Chapel Hill, NC, USA |
| Recent Publications | | <ul><li>T. Whitehead*, C. Metayer, M.H. Ward, M.G. Nishioka, R. Gunier, J.S. Colt, P. Reynolds, S. Selvin, P. Buffler, and S.M. Rappaport. Is house-dust nicotine a good surrogate for household smoking? *Am J Epidemiol*, 169(9):1113-23 (2009).</li><li>S.M. Rappaport and M. T. Smith, Environment and Disease Risks, *Science*, 330: 460-461 (2010).</li><li>*S.M. Rappaport*, Implications of the Exposome for Exposure Science, *J Exposure Sci Environ Epidemiol*, 21: 5-9 (2011).</li><li>H. Li†, H. Grigoryan†, W. E. Funk*, S. S. Lu*, S. Rose*, E. R. Williams, and *S.M. Rappaport*, Profiling Cys34 Adducts of Human Serum Albumin by Fixed-Step Selected Reaction Monitoring, *Mol Cell Proteomics*, 10(3):M110.004606 (2011).</li><li>S. Liu*, S. K. Hammond, and S.M. Rappaport, Statistical Modeling to Determine Sources of Variability in Exposures to Welding Fumes, *Ann Occup Hyg*, 55(3):305-18 (2011).</li><li>S.M. Rappaport, H. Li†, H. Grigoryan†, W.E. Funk, and E.R. Williams, Adductomics: Characterizing Exposures to Reactive Electrophiles, Toxicol Letters, 13;213(1):83-90 (2012).</li><li>S. M. Rappaport, Discovering Environmental Causes of Disease, *J Epidemiol Comm Health*, 66: 99-102 (2012).</li><li>H. Grigoryan†, H. Li†, A.T. Iavarone, E.R. Williams and S.M. Rappaport, Cys34 Adducts of Reactive Oxygen Species in Human Serum Albumin, *Chem Res Toxicol*, 25(8):1633-42 (2012).</li><li>S.M. Rappaport, Biomarkers Intersect with the Exposome, *Biomarkers*, 17(6):483-9 (2012).</li><li>S.M. Rappaport, S. Kim, R. Thomas, B.A. Johnson, F.Y. Bois and L.L Kupper, Low-dose Metabolism of Benzene in Humans: Science and Obfuscation, *Carcinogenesis*, 34(1): 2-9 (2013).</li></ul>(*Indicates Ph.D. or M.S. student; †indicates post-doctoral fellow) |
| Programme at IARC | | Using omic methods to characterize dietary exposures |
| Short background | | Professor Rappaport is a pioneer in the emerging field of 'Exposure Biology' and a prominent advocate of the concept of the 'Exposome' as a new paradigm for environmental health. Much of his current research involves the development and application of blood protein adducts as biomarkers of exposure to toxic chemicals arising from inhalation, ingestion, and endogenous processes. This has led to the concept of the protein adductome, representing signatures of people's exposures to toxic chemicals. By comparing adductomes across populations, Prof. Rappaport hopes to identify important biomarkers of chronic diseases. He has also used environmental measurements and biomarkers to elucidate the human metabolism of several toxic chemicals, |

| | notably benzene, and to quantify interindividual variability in biomarker levels due to genetic, environmental and lifestyle factors. Prof. Rappaport has also published extensively in areas related to the assessment of long-term chemical exposures for purposes of controlling hazards and of investigating exposure-response relationships. He has more than 200 peer-reviewed publications and has collaborated extensively with investigators throughout the world. |
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| | 2006 – date – Professor in Residence, Division of Environmental Health Sciences, School of Public Health, Univ. of California, Berkeley, Berkeley, CA, USA |
| | 1990 – 2006 – Professor of Environmental Health, Department of Environmental Sciences and Engineering, School of Public Health, University of North Carolina, Chapel Hill, NC, USA |
| Institutional webpage: | http://ehs.sph.berkeley.edu/ |
| Personal webpage: | http://ehs.sph.berkeley.edu/people/rappaport.htm |