The West African Society of Toxicology WASOT recently concluded an international conference with the theme: “Global Understanding of Chemicals in Health, Diseases and Economics”. The international conference which was held between 20 - 23rd February 2013 at the University of Port Harcourt, Nigeria, addressed the effects of various natural and man-made chemicals on man and the environment.

The keynote address was delivered by Prof. Judith T. Zelikoff, Director, Community Outreach Nelson Institute of Environmental Medicine New York University Medical College Tuxedo, New York, USA, on the toxicological effects of the gutkha, a globally-used smokeless tobacco product. While cigarette smoke contains approximately 4,800 constituents, smokeless tobacco contains approximately 3,000. Of these, 20 are different N-nitrosamines, 30 are different persistent organic pollutants, while approximately 30 are known or suspected carcinogens. Among others, health outcomes linked to smokeless tobacco were reproductive, cardiovascular and immunological problems. In conclusion, it was emphasized that smokeless tobacco could pose serious health risks in the foetus and/or growing neonate as well as the pregnant mother.

In a second keynote address, delivered by Prof. John I. Anetor of University of Ibadan, the speaker highlighted the potential effects of environmental chemicals, like methyl mercury (Hg-CH3) and polychlorinated biphenyls (PCBs), on the reproductive system of populations in the Niger Delta Basin. The conference was held right in this region, considered an ecological waste land by several reports, due to environmental degradation and contamination from oil and gas production activities as well as rapid and mass industrial and urban development activities. He called on relevant stakeholders to intensify efforts to avert a repeat of the thalidomide experience; upholding the ‘precautionary principle’ to avoid late lessons from early warnings.

Over 20 platform and 80 poster papers were presented at the conference under the various sub-themes. There were questions and answer sessions as well as interactive sessions that resulted from exciting and resourceful discussion which gave rise to the following conclusions and recommendations in a communique:

1. It was noted that the National Tobacco Law of 2009 was not enacted yet. Government should ensure the speedy enactment of this law, going by the increasing proven toxic effects of tobacco to health.
2. Many of the major diseases and dysfunctions that have substantially increased over the past 40 years appear to be related, in part, to developmental factors.
There is, therefore, need to redirect disease prevention strategies in order to focus more on vulnerable early life stages.

3. Time has come for reorientation of health care professionals toward greater care for developmental stages.

4. There is the need to employ environmentally or dietary relevant doses of compounds and monitor toxicity in cells.

5. Emphasis should be laid on multidisciplinary research teams to facilitate better use of evidence and research in policy making.

6. Effective ways of improving the transfer of evidence and facilitating links between researchers and policy makers to be pursued should be found.

7. It is necessary to enhance the development of knowledge sharing and support networks: coaching and mentoring, networking between researchers in academia and industry.

8. WASOT should seek partnership with international journals and professional societies (e.g., Society for the Advancement of Science in Africa, SAFA, etc.) with a view to fostering collaboration, and to explore joint conferences/workshops with local professional societies with similar objectives.

9. Facilitating simple but effective environmental friendly cultures like not discarding wastes, especially non-biodegradable ones, in the surroundings should be spread.

10. WASOT commended University of Port-Harcourt for being the first institution in Nigeria and West African sub-region to mount a post graduate degree programme in Toxicology.