

**Abstracts' Service**

## **Role of World Health Organization Framework Convention on Tobacco Control Global Knowledge Hub on Smokeless Tobacco**

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*Indian Journal of Medical Research 2018;148:7–13*

Smokeless tobacco (SLT) is a recognized public health challenge, having over 350 million users globally, concentrated particularly in South-East Asia. A need for research on curbing major challenges in regulating SLT use has been long felt and subsequently highlighted in several sessions of the Conference of Parties (COP) of the Framework Convention on Tobacco Control (FCTC). The sixth session of COP established a knowledge hub on SLT at the Indian Council of Medical Research—National Institute of Cancer Prevention and Research India, with a mandate to (i) generate and share expertise, information and knowledge; (ii) promote and facilitate communication among Parties, organizations and stakeholders; and (iii) support the Convention Secretariat in

contributing to technical aspects of SLT control. The hub disseminates scientific evidence through an interactive website and publications and supports national and international partners in SLT research. The hub is a contributor to many events/conferences and has conducted several workshops on SLT control, including an inter-country meeting on SLT policy implementation status, which brought together representatives from across the globe, and framed recommendations for policy reform. The hub is dedicated to interaction and collaboration with relevant tobacco control organizations to generate evidence, support and policy orientation in line with its mandates and recommendations under the World Health Organization FCTC.

## **Smokeless Tobacco Control: Litigation & Judicial Measures from Southeast Asia**

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*Indian Journal of Medical Research 2018;148:25–34*

Recourse to litigation and positive judicial interventions is one of the most effective tools to meet public health objectives. The present review envisions compiling litigation and judicial measures in Southeast Asia Region (SEAR) while assessing their role in advancing smokeless tobacco (SLT) control, and equally highlighting, how tobacco industry has used litigation to undermine tobacco control efforts in the Region. The litigation, especially from the SEAR, up to 2017, that have facilitated SLT control or have been used by the tobacco industry to challenge an SLT control policy decision were reviewed. Most of the litigation related to SLT control from the Region are on pictorial health warnings. Bhutan has imposed a complete prohibition on sale, manufacture and

import of all kinds of tobacco products and the litigation there relates to the prosecution of offenders for violating the ban. Judiciary in the Region is well informed about the ill-effects of tobacco use and remains positive to tobacco control initiatives in the interest of public health. In India, several SLT-specific litigation helped in better regulation of SLT products in the country. Litigation has compelled governments for effective enforcement of the domestic tobacco control laws and the World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC). Parties to the WHO FCTC must now use Treaty Article 19 to strengthen their legal procedures and make the tobacco industry liable, for both criminal and civil wrongs.

## Imaging and Neuropsychological Changes in Brain with Spiritual Practice: A Pilot Study

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*Indian Journal of Medical Research* 2018;148:190–99

**Background and objectives.** Some studies have systematically assessed the effects of spiritual practice (SP) on the brain using combined neuropsychological testing and functional imaging. The objective of the present study was to compare imaging and neuropsychological changes in healthy individuals after SP and those with only physical exercise.

**Methods.** Healthy adult male volunteers, aged 25-45 yr were randomized into two groups. Group 1 (SP group) underwent the SP and group 2 (controls) did brisk walk for 30 min daily. Detailed neuropsychological evaluation, resting-state functional magnetic resonance imaging (fMRI) and brain <sup>99m</sup>Tc ethyl cysteinate dimer single-photon emission computed tomography (SPECT) were carried out for both groups before and three months after intervention.

**Results.** Post-intervention, resting state fMRI showed increased connections of left precuneus (in the posterior cingulate cortex area of default mode network) in group 1 and increased left frontal connections in group 2. The neuropsychological tests showed significant improvement in 'Speed of Processing' (Digit Symbol Test) in group 1 and in Focused Attention (Trail Making A) in group 2. The SPECT data in group 1 showed significant improvement in perfusion of the frontal areas, with relatively lesser improvement in parietal areas. Group 2 showed significant improvement in perfusion predominantly in parietal areas, as compared to frontal areas. In addition, significantly improved mood was reported by group 1 and not by group 2.

**Interpretation and conclusions.** This pilot study shows important functional imaging and neuropsychological changes in the brain with SP.

## A Fascinating Story of the Discovery and Development of Biologicals for Use in Clinical Medicine

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*Indian Journal of Medical Research* 2018;148:263–78

A young physician starting a fresh career in medicine in this millennium would hardly stop to think about the genesis of a particular biological drug that he/she will be prescribing for a patient evaluated in the morning outpatient department. For him/her, this is now routine, and the question of 'Who', 'How' and 'When' about these biologicals would be the last thing on their mind. However, for those who came to the medical profession in the 1950s, 1960s and 1970s, these targeted drugs are nothing short of 'miracles'. It would be a fascinating story for the young doctor to learn about the long journey that the dedicated biomedical scientists of yesteryears took to reach the final destination of producing such wonder drugs. The story is much like an interesting novel, full of twists and turns, heart-breaking failures and glorious

successes. The biologicals acting as 'targeted therapy' have not only changed the natural history of a large number of incurable/uncontrollable diseases but have also transformed the whole approach towards drug development. From the classical empirical process, there is now a complete shift towards understanding the disease pathobiology focusing on the dysregulated molecule(s), targeting them with greater precision and aiming for better results. Seminal advances in understanding the disease mechanism, development of remarkably effective new technologies, greater knowledge of the human genome and genetic medicine have all made it possible to reach the stage where artificially developed 'targeted' drugs are now therapeutically used in routine clinical medicine.