

## India to help world protect ancient medicines

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**New Delhi** On Tuesday, India offered to share its expertise with other countries on effectively protecting the commercially valuable traditional systems of medicine such as Ayurveda from being patented by individuals and companies. The 34-million page digital database India created in five global languages on Ayurveda, Sidhha, and Unani systems of medicine and Yoga, has helped India prevent individuals and companies from patenting medicines derived from these traditional medicines.

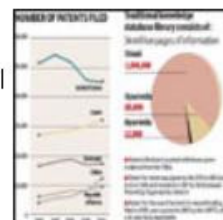
Where the mind is without fear and the head is held high; Where knowledge is free, is unfortunately no longer a reality, as director general, **CSIR** Samir Brahmachari pointed out. All information and knowledge is indexed and guarded jealously, reflected in the growing number of patents filed across the world, currently led by the US, which files close to 50,000 patents each year.

The rapid growth of this practice is exemplified in the patent on "the fungicidal uses of neem oil". Hardly a ground-breaking discovery. The uses of neem as a remedy for skin infections, blood purifier, insect repellent and so on, are common or 'traditional knowledge'. The patent was challenged, in 1995, and eventually withdrawn—a process that took 10 years and over \$1 million in legal fees.

Contrast this with the **Traditional Knowledge Database Library's (TKDL)** appeal against a patent filed at the EPO for the use of the "watery extract of kharbooza/melon as an anti-vitilgo cream". The appeal was accompanied with evidence from the database about the use of melon in this manner for several generations, resulting in the EPO setting aside its intent to grant the patent—a process that took under three weeks and cost nothing.

The traditional knowledge database library aims to be a powerful tool against bio-piracy at zero cost. The reason it has been documented digitally is because, let's face it, if you don't exist on Google, you don't exist. The database focuses on traditional knowledge in medicine because, at present, that is the area that is most exploited by first world knowledge pirates. To this end, in 2006, the government granted patent offices across the world, including the USPTO, EPO, UKPTO and IP Australia, access to the **TKDL**. This allows patent examiners to evaluate patent applications and stop attempts to patent traditional knowledge as "new" inventions. Via this mechanism, several patents on gram (chana), mint, onion, apple juice, fenugreek seeds (methi) and several other spices and fruit from being patented.

In addition, creating a database of traditional medicine allows for low-cost drug development. The mechanism for this is an 'open source drug discovery' model, which works in a similar fashion to the successful open source software initiatives like Linux. **TKDL** envisions that 1% of its medicinal formulations would be utilised in this open innovation model for research on cures for tuberculosis, malaria and other diseases rampant in the sub-continent. The deaths from TB are estimated at 4,500 per day, making the death toll from the disease as high as cancer. The research on cures for cancer, however, is 400 times that for TB.



Another strategy **TKDL** has been using to keep the prices of generic drugs low is to sign non-exclusive agreements with local pharmaceutical manufacturers. Because these medicines don't need much R&D, manufacturers are able to produce them readily, increasing the availability of generics. This does not, however, mean that all formulations are given to manufacturers at low prices—those that need large investments in R&D are given exclusively to big pharma. **CSIR** recently signed a multi-million dollar exclusive deal with Nostrum Pharmaceuticals, USA to further research a thrombolytic drug they have been developing. In other words, the exercise is to prevent medicines that could be produced cheaply from becoming expensive as a result of inaccurate patenting, which reflects the balanced view **CSIR**, as a parent organisation of **TKDL**, takes on health as a right and health as a business.

None of this, however, answers the question about the proprietorship of traditional knowledge. According to Brahmachari, since traditional medicine has been in practice for thousands of years, as per the inheritance law, all the people of India own one-billionth of each technique. So, really no one owns this knowledge. So, even if knowledge contained in the **TKDL** originated in China, it isn't owned by India. All that the database serves to do is prevent large pharmaceuticals and/or individuals (mainly in the developed world) from patenting techniques that are common knowledge in developing countries. **TKDL's** aim is not to block patenting but to encourage genuine innovation, preventing traditional knowledge from being passed off as invention.

## Kani tribes knowledge used for sports drug

In South India the medicinal knowledge of the Kani tribes led to the development of a sports drug named Jeevani, an anti-stress and anti-fatigue agent, based on the herbal medicinal plant arogyapaacha. Indian scientists at the Tropical Botanic Garden and Research Institute (TBGRI) used the tribal know-how to develop the drug. The knowledge was divulged by three tribal members, while the customary rights to the practice and transfer of certain traditional medicinal knowledge within the Kani tribes are held by tribal healers, known as Plathis. The scientists isolated 12 active compounds from arogyapaacha, developed the drug jeevani, and filed two patent applications on the drug. The technology was then licensed to the Arya Vaidya Pharmacy, an Indian pharmaceutical manufacturer pursuing the commercialization of Ayurvedic herbal formulations. A trust fund was established to share the benefits arising from the commercialization of the TK-based drug.