

## Editorial

### Noble prize to Artemisinin discovery: A boost for traditional knowledge-based innovations

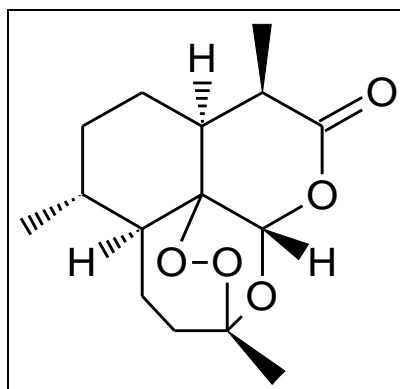
**Deepak Kasote**

*Herbal Medicine, Interactive Research School for Health Affairs (IRSHA), Bharati Vidyapeeth University, Pune-Satara Road, Pune-411043, Maharashtra, India.*

\*E-mail: [deepakkasote06@gmail.com](mailto:deepakkasote06@gmail.com); Phone: +9120-24366920.

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On 5<sup>th</sup> October 2015, Youyou Tu has been awarded Noble Prize in Physiology or Medicine along with William C. Campbell and Satoshi Omura for her valuable discovery on the antimalarial drug, artemisinin (Fig. 1). This Noble Prize in Physiology or Medicine had some distinct importance, especially because of nearly after 50 years' Nobel Assembly at Karolinska Institute recognized the scientific contribution of one such a scientist, who believed on traditional herbal medicine and invented wonderful drug of all time 'artemisinin'. The whole journey of Youyou Tu about artemisinin discovery was really an inspiring story and ideal for researchers who are intended to carry out traditional medicine guided drug discovery research in future.



**Fig. 1.** Chemical structure of artemisinin

The discovery of artemisinin from traditional Chinese medicinal plant, *Artemisia annua* L. (Asteraceae) was really a good example of a traditional knowledge directed drug discovery, which initiated around 50 years ago. In 1967, under national project against malaria, Youyou Tu started working on the extraction and isolation of antimalarial constituents from Chinese herbal

materials (Tu, 2011). In her commentary article published in Nature Medicine, she has narrated the whole story about artemisinin discovery, and how she got an idea of this active antimalarial constituent from the ancient Chinese text by Ge Hong, a 4<sup>th</sup>-century physician, alchemist and herbalist (Hong, 340AD). According to Youyou Tu, artemisinin is only a sliver of the gifts or potential gifts to offer from Chinese medicine. The similar fact could also be true for other traditional medicines such as Ayurveda, Kung Fu and so on. For this, we need to revalidate our ancient treasure of medicines by bridging ancient traditional medicinal knowledge with modern science.

Drug discovery was one of the most important research areas in the past and would definitely be a key research area in the future. Despite tremendous research advancement so far in the 21<sup>st</sup> century, we are still far from having enough drugs to combat with several life-threatening diseases including cancer, diabetes and AIDS. Resistance and side effects to existing drugs is another biggest problem in the coming years. Therefore, we need more and more drugs to reverse the scenario of the diseased population to the healthier population of the whole world.

## REFERENCES

- Hong G (340AD). Handbook of prescriptions for emergencies, 1<sup>st</sup> Edition (Chinese). Tianjin Science and Technology Press, China.
- Tu Y (2011). The discovery of artemisinin (qinghaosu) and gifts from Chinese medicine. Nature Medicine, 17, 1217-20.

### How to cite this article?

Kasote D (2018). Noble prize to Artemisinin discovery: A boost for traditional knowledge-based innovations. Journal of Conventional Knowledge and Holistic Health, 2 (2), Article ID 186.

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