

A signed statement by the applicant that the research works under reference has not been given any award. The applicant should also indicate the extent of the contribution of the others associated with the research and he/she should clearly acknowledge his/her achievements.

This is to certify that the work under reference has not been given any award from any society of scientific body. The work under reference has been in collaboration of biologist but the conceptualization and execution of the experimental work was done by my students.

This work has led the discovery of low nano molar *in vitro* and *in vivo* antimalarial and anti-Parkinson agents with no toxicity. Some of these compounds activates Nurr1 enzyme and protects the dopamine neurons hence showed a great potential to be developed as a drug for the treatment of Parkinson's disease and Boston based pharma industry NURRON has taken up these molecules for development as a drug.

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TIMES CITY

Hope for Parkinson's patients? DU team develops drug molecule

Being Checked
In US After
8-Year Study

Shradha Chettri
@timesgroup.com

New Delhi: There is a ray of hope for over 10 million people affected by Parkinson's disease across the world. A Delhi University professor and his team have found an effective drug molecule for the treatment of Parkinson's disease. So far, there is no cure for the disease.

The molecule developed by DU professor has undergone pre-clinical trial, and now been taken up in the US for further studies. Professor D S Rawat of the chemistry department and his team of seven other people were working on this project for the past eight years.

Earlier, the team had developed a molecule for malaria treatment. The results of their experiment were published in ACS Medicinal Chemistry Letters in 2012.

"During the same time, I came across a paper publis-

Parkinson's disease is a neurological disease that causes a person to lose control over some body functions

10 million people affected by Parkinson's globally

No specific data available on the number of affected people in India

Incidence and prevalence increase with advancing age, being present in 1% of people over the age of 65 years

MILESTONE IN TREATMENT

► DU chemistry professor DS Rawat and his team have developed a molecule for the treatment of Parkinson's disease

► It is based on hybrid technology involving two drug molecules i.e. chloroquine and another antimalarial drug

► Shows 75 times better activity against malaria, published in ACS Med Chem Lett

► Took eight years to develop (2012-2020)

► Pre-clinical trial successfully completed

► American pharma industry has taken it up for further studies

► Project funded by Fox Foundation, the USA

► ₹40 lakh received by DU as part of the funding

hed by Sanders in 1987 in 'Nature' journal wherein he concluded that chloroquine, a drug for malaria treatment, can retard Parkinson progression. But no one carried forward that work. Since our compounds were better than chloroquine for malaria and had structural similarity with chloroquine, we thought of taking it forward," DS Rawat told TOI.

The team then got in touch with professor Kim at McLean hospital at Boston in the USA. "We started collaboration with him and in 2014, MJ Fox Foundation funded this project. We got exciting results, and our molecule cleared pre-clinical trials, meaning it has an excellent chance to be developed as a drug," said Rawat.

"Out of 10,000 compounds, only one compound comes to market as a drug," Rawat added while explaining the importance of the compound reaching the trial stage.

The molecule developed by the team is based on a hybrid technology. "In this, a medicinal chemist joins two or more drugs for better efficiency than giving drugs in combination," said Rawat.



प्रोफेसर दीवान एस रावत
Professor Diwan S. Rawat
रसायन विज्ञान विभाग
Department of Chemistry
दिल्ली विश्वविद्यालय, दिल्ली-११०००७
University of Delhi, Delhi-110007