

CDRI Scientists Developed a new product for Osteoarthritis:



A first ever breakthrough in the area of osteoarthritis, *a most common chronic condition of the joints that afflicts mainly the weight-bearing joints such as hips and knees, and causes physical disabilities. At present there is no viable treatment available for osteoarthritis.* CDRI Scientists has developed a standardized nano-formulation from *Spinaceaoleracea* commonly known as Palak for treatment of osteoarthritis.

“This was a co-incidental outcome of our research at CDRI when our entire focus was on post-menopausal osteoporosis and fracture healing. We observed that a standardized nano-formulation of *Spinaceaoleracea* commonly known as Palak not only had the ability to form bone but it also possessed an intrinsic ability to bed more of cartilage cells at affected site. We observed that in the osteoarthritis model of rodents, *Spinaceaoleracea* repaired and cured the degenerated cartilage. Soon this drug will be available in the market as it has been licensed to Pharmanza Pvt. Ltd today on 31st of July 2017, said DrRitu Trivedi, Bone biologist and team leader for this formulation.

Osteoarthritis may be considered as a problem of old age but in contrast it is the most common form of joint disease, that can strike in younger age groups too. “Most people think arthritis is an

inevitable part of ageing, but in fact, it can affect anyone at any age,” “Regardless of age, the condition can have a significant negative impact on healthy life.”

In India ~39% people suffer from Osteoarthritis. Out of this 45% of women above 65 years experience symptoms and 70% of them have x-ray evidence of Osteoarthritis. Postmenopausal women with osteoarthritis have a 20% increased risk of fracture.

Many factors can contribute to the development of the condition, including genetics, weight and joint injury. Wear and tear injuries can be common, and joint pain is something many, if not most, people will experience at certain points.

At present there are no drugs in the market especially any orally available drug for osteoarthritis. Only symptomatic treatments are available with pain killers like ibuprofen, naproxen. There are reports that these drugs on long term use show liver toxicity.

Director, CSIR-CDRI, DrMadhuDikshit said, based on the results of our research our drug shows no toxicity and is effective at lower doses with the nano-formulation. We have identified four bio-markers in the extract that possibly impart efficacy in repairing the cartilage at the knee joint.

Director, Pharmanza Pvt. Ltd, Mr. L. Hongorani said on the occasion of licensing of this new drug, We are happy to sign another licensing in consecutive year with CSIR-CDRI, This drug would be very helpful in curing of osteoarthritis and will come in market soon.

Team of Researchers includes Scientists led by- Ritu Trivedi (Bone Biologist),PrabhatRanjanMishra (formulation expert), Rakesh Maurya (Medicinal chemist), Jawaharlal (Pharmacokinetics), S.K. Rath (Toxicity). **Students:**DharmendraChoudhary, SulekhaAdhikary, Naseer Ahmad, Priyanka Kothari, Ashish Tripathi, NareshMittapelly , Gitu Pandey, Sudhir Kumar , Kapil Dev

Patent Number **0245NF2015 has been filed:** Formulation of Spinaceaoleracea for the prevention and /or treatment of bone related disorders