

PRESS RELEASE

December 7, 2023

## **Zinc containing vaginal gel shows promise as surprising emerging treatment for vaginal yeast infections.**

Around three quarters of women develop vaginal yeast infections at least once in their lifetime, and approximately 140 million women globally suffer from recurrent infections. Recurrent yeast infections can have an enormous impact of quality of life. Existing anti-fungal treatments are not always effective and resistance against these treatments is developing.

Vaginal yeast infection is caused by a yeast called Candida. There are a number of species of Candida, but the one that causes most yeast infections is Candida albicans.

Now, new research led by the University of Exeter's MRC Centre for Medical Mycology has found that the trace mineral zinc could play a surprising role. Just like us, Candida albicans needs zinc in its diet and this yeast produces a molecule (Pra1) which tries to scavenge zinc as a food source. Now, researchers have found that this molecule triggers an inflammatory response, which they believe is responsible for many cases of yeast infection.

Wellcome Trust Senior Fellow Dr Duncan Wilson, of the University of Exeter's MRC Centre for Medical Mycology, led the research, and said: "Recurring thrush can be deeply distressing and problematic, and we urgently need new treatments. Our new finding on zinc is very exciting, because it suggests that simple provision of zinc could block the production of the inflammatory Pra1 molecule, but we're not in the position to make treatment recommendations at this stage. We need larger scale trials to confirm the effect. Please don't apply any products that are not designed for the genital area, as zinc can be toxic at high concentrations and it could be extremely unsafe."

In lab experiments, the team found that manipulating genes so that Candida albicans does not produce Pra1 prevented inflammation. In the paper, published in Science Translational Medicine, they went on to find that applying relatively low levels of zinc in mice blocked Pra1 production, and prevented inflammation. This is important because it is inflammation that causes the burning and itching symptoms of yeast infection.

Research collaborator Fempharma LLC. recruited women who had been experiencing vaginal infections at least once every three months. The women applied the company's vaginal product – JUVIAGEL – which contains a small amount of zinc nightly for two weeks, and then twice a week. Of six women who completed the study and had vulvovaginal candidiasis, five of them did not experience reinfection over the three month study.

Fempharma's CEO Dr Peter Bartal said: "We are now carrying out a large clinical trial to confirm that JUVIAGEL zinc treatments are effective. We believe that we can develop our product to help avoid the recurrence of vaginal yeast infections."

### **About Fempharma**

Fempharma LLC. ([www.fempharma.eu](http://www.fempharma.eu)) is a Hungarian research-driven B2B pharma company dedicated to develop and market new, innovative and niche health-care products for women and to make innovative therapies available. Fempharma's goal is to develop products for the

urogynecology area focusing on urinary incontinence, vaginal dryness, recurring vulvovaginal candidiasis and vulvovaginal atrophy. Fempharma is the world leading research and development company in exploring the potential of zinc in treating women's health problems.

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