



GUEST COLUMN
Probiotics vs. Prebiotics
~ Dr. Arpit Bansal

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GUEST COLUMN

Understanding the Probiotics and Prebiotics: Key Differences



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When discussing gut health, the terms probiotics and prebiotics frequently arise. Both are essential for a healthy digestive system, yet they have distinct roles.

Probiotics:

Dr. Arpit Bansal explains that probiotics are live microorganisms, commonly known as "good bacteria." These beneficial bacteria support digestion, enhance the immune system, and contribute to mental well-being. "Probiotics are crucial for maintaining a balanced gut microbiome," says Dr. Bansal. You can find probiotics in fermented foods like yogurt, kefir, sauerkraut, kimchi, and miso, as well as in supplements. Consuming these can help replenish the gut flora, especially after antibiotic treatments.

Prebiotics:

Prebiotics, on the other hand, are non-digestible fibers or compounds that act as nourishment for probiotics. Dr. Bansal highlights that prebiotics foster the growth and activity of beneficial gut bacteria. Unlike probiotics, they are not live bacteria. "Prebiotics serve as food for the good bacteria, ensuring their growth and sustainability," notes Dr. Bansal. Common sources of prebiotics include garlic, onions, bananas, asparagus, and whole grains. Incorporating these into your diet can create an optimal environment for probiotics to thrive.



ASK YOUR PHARMACIST!

PHARMACY



"Side effects may include stomach bloating and difficulty swallowing."

In Summary:

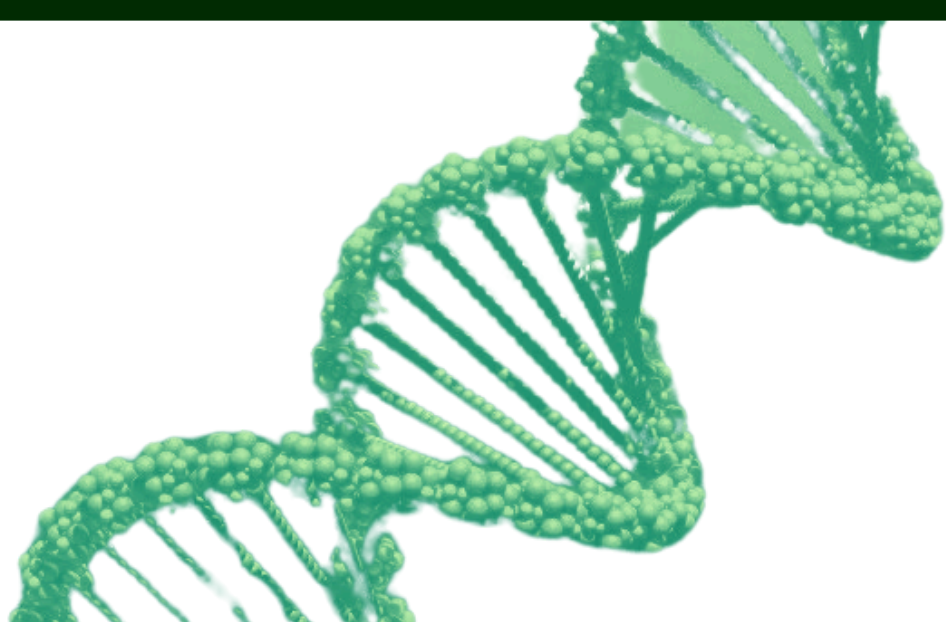
Probiotics are live beneficial bacteria that help maintain gut health, while prebiotics are fibers that feed these good bacteria. Together, they play a vital role in promoting a balanced and healthy digestive system. Dr. Arpit Bansal emphasizes that understanding the distinction between these two can help you make informed dietary choices to support your overall health. "A combination of both probiotics and prebiotics can synergistically enhance gut health," advises Dr. Bansal, recommending a diet rich in both elements for optimal digestive wellness.



DID YOU KNOW ? The Origin of Rx



Most people think that Rx is derived from the Latin word “recipe”, meaning “take”, but another interesting theory suggests that it evolved from the Eye of Horus, an Egyptian symbol believed to have healing powers. Pharmacies and drugstores have been around for a long time. The world’s oldest prescriptions were etched into tablets around 2100 B.C. and Baghdad was home to some of the earliest drugstores, dating as far back as the eighth century.



Black Box Warning Benzodiazepines and the Opioid Connection

Benzodiazepines have long been regarded as effective medications for managing anxiety disorders, insomnia, and various neurological conditions. However, recent updates from the FDA shed light on significant risks associated with their use, particularly when combined with opioids. The FDA's mandate in September 2020 required a crucial addition to the Boxed Warning for benzodiazepines. This update aimed to alert healthcare professionals and patients alike to the dangers of abuse, misuse, addiction, physical dependence, and withdrawal reactions, specifically emphasizing the peril of concomitant use of opioids. The evidence supporting this new warning is staggering. A significant proportion of patients prescribed benzodiazepines received extended supplies, indicating widespread and potentially prolonged usage. Moreover, adverse event reports highlighted alarming withdrawal symptoms, including severe CNS, cardiovascular, and gastrointestinal effects, even when patients underwent gradual tapering.

So, what are the clinical implications for healthcare providers?

Firstly, prescribing benzodiazepines should prioritize the lowest effective dose for the shortest duration possible. Even when used as directed, these medications can lead to physical dependence over time.

Secondly, abrupt cessation or rapid dosage reduction must be avoided at all costs, as it can trigger life-threatening withdrawal reactions, including seizures. Instead, a patient-specific tapering plan, tailored to individual needs, should be implemented gradually to mitigate these risks effectively.

EXXUA

A New Treatment Option for Major Depressive Disorder

Major Depressive Disorder (MDD) continues to pose significant challenges in patient care, necessitating ongoing advancements in pharmacotherapy. The recent FDA approval of EXXUA marks a notable addition to the armamentarium for managing this complex condition. Developed with the active ingredient Gepirone, EXXUA offers a promising avenue for patients grappling with MDD.

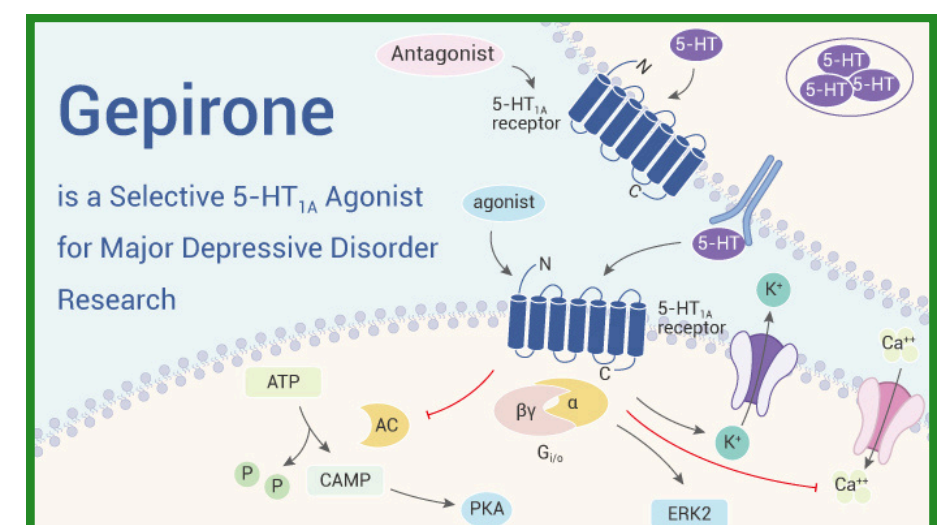
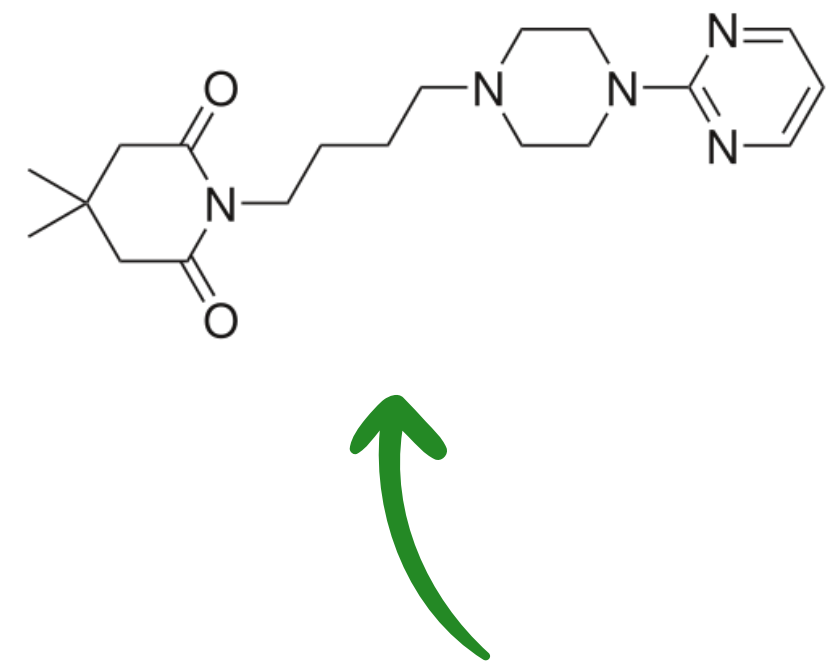
EXXUA is indicated for the treatment of **Major Depressive Disorder (MDD)**, offering a valuable therapeutic option for individuals navigating the complexities of this debilitating condition.

Gepirone, the active ingredient in EXXUA, exerts its therapeutic effects primarily as a **selective partial agonist at the serotonin 5-HT_{1A} receptors**, modulating serotonin signaling in the brain. By enhancing serotonin neurotransmission in key brain regions implicated in mood regulation, gepirone offers a **nuanced approach** to alleviating depressive symptoms, fostering a brighter outlook for patients navigating the complexities of Major Depressive Disorder.

Clinical trials evaluating EXXUA revealed a **7% discontinuation rate** due to adverse reactions. Notably, common reactions leading to discontinuation included dizziness and nausea. Vigilance in monitoring and managing these adverse events is imperative for optimizing patient outcomes.

Healthcare professionals must be vigilant regarding potential risks associated with EXXUA therapy. These include the **risk of serotonin syndrome** when co-administered with **SSRIs or tricyclic antidepressants**, as well as the possibility of suicidal thoughts and behaviors, particularly in young patients with MDD.

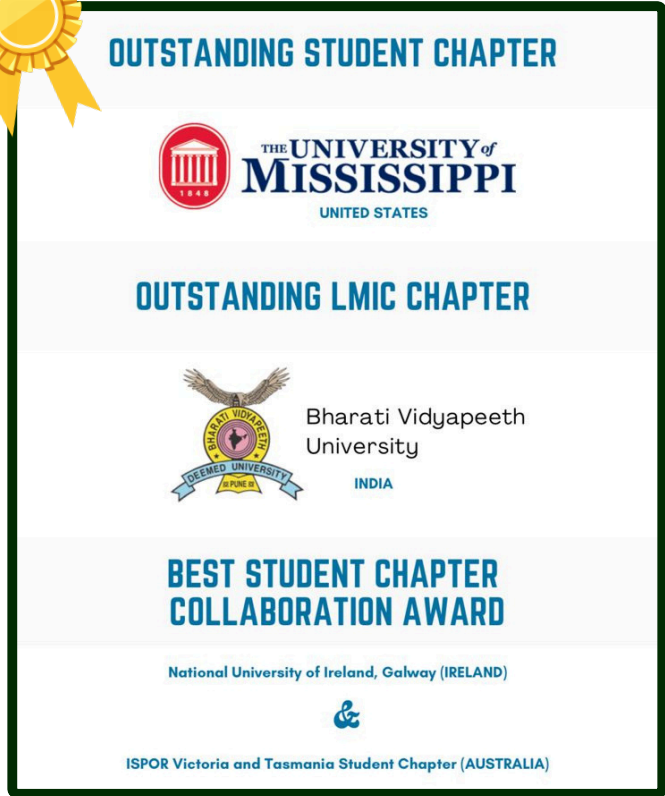
In conclusion, EXXUA represents a significant advancement in the pharmacotherapeutic landscape for MDD. By leveraging the efficacy of Gepirone in a meticulously formulated extended-release tablet, EXXUA offers healthcare providers a valuable tool in their efforts to alleviate the burden of depression and improve patient quality of life. However, diligent monitoring, patient education, and adherence to prescribing guidelines are essential to maximize the benefits of this innovative treatment option.



CLINICAL PHARMACIST INTERVENTION!

The patient, a 26-year-old female, was diagnosed with a complicated urinary tract infection. Her current treatment included Inj. CTRI (Ceftriaxone) 2gm OID, INJ. PCM (Paracetamol) 1gm TDS and Syrup CITAL (Disodium Hydrogen Citrate) 1.375gm/5 ml. Urine culture sensitivity tests revealed Escherichia coli resistant to ceftriaxone. Consequently, her treatment was adjusted to include Piperacillin + Tazobactam (4.5g three times daily) in place of ceftriaxone.

ACHIEVEMENTS



Poona College of Pharmacy secured with overall General Championship-Winner Trophy (PG Category) Trophy for NPW events.

ISPOR BVDU Student Chapter clinched 1st place in the outstanding LMIC- Student Chapter Awards Asia Pacific region.



Our Intern Omkar Patil came First at the State Level intercollegiate Pharma Chess tournament at Channabasweshwar Pharmacy College, Latur



Our Intern Swetanshu Subhrajit secured Best Poster Award in Poster Presentation at National AI/ML in Healthcare Conference SSM-COP, Vijayapur, Karnataka



Our Interns Shruti Patwal and Simran Srivastava secured First Position in Scientific Poster Presentation at the 8th International IPSF APRO GPPed 2023 India Conference held at SGT University, Gurugram, Haryana.



Sayantika Mandal won the 1st prize in PHARMA INNOVATHON-23 organized by Chebrolu Hunumaiah Institute of Pharmaceutical Sciences Guntur (CHiPs Guntur) in association with IPA-Education Division

Dev Dangi, Tanmay Kulkarni, Aditya Mavi, Ankit Tiwari, Shikha Mishra, and Karan Sewani won various prizes at the 8th International IPSF APRO GPPed 2023 India Conference held at SGT University, Gurugram, Haryana.



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