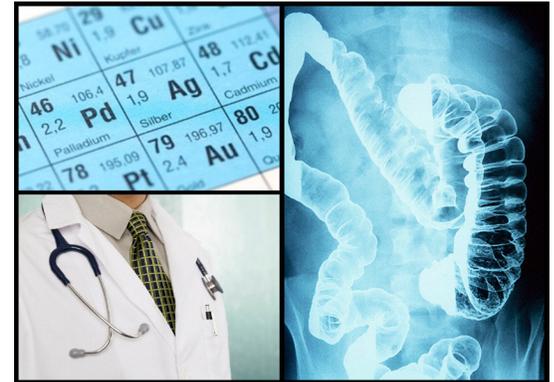




Calcium-Sensing Receptor (CaSR) Nutrient-Based Therapies for Diarrhea in Children

Reduces the Magnitude and Duration of Diarrhea by Increasing Absorption And Decreasing Secretions & Inflammation

These calcium-sensing receptor (CaSR)-based active nutrients prevent and treat diarrheal diseases. A worldwide problem, infectious diarrhea is often lethal in developing countries. More than 2,000 children still die every day around the world from dehydration and electrolyte disturbances that result from diarrheal disease. Diarrhea kills more children than malaria, measles, and AIDS combined, according to the Centers for Disease Control and Prevention. The only available oral therapy for children with acute diarrhea (Oral Rehydration Solution, ORS) does not treat the inflammation component of diarrhea or stop the secretions. Because it does not reduce diarrhea severity, ORS is used in less than 30 percent of cases involving children. Other types of therapies are expensive and/or ineffective at treating the conditions' many effects, including malnutrition and impaired growth. When formulated in a solution, these CaSR-based nutrients developed by University of Florida researchers promote gut healing, rehydrate the body following diarrhea-related fluid loss, reduce the magnitude and duration of diarrheal disease, and treat other side effects. They are specially designed for active growing children.



Application

Calcium-sensing receptor (CaSR)-based nutrients that prevent and/or treat diarrheal diseases in all ages, but especially children

Advantages

- Can be formulated as a new product or incorporated into existing products, such as beverages, antibiotics, or anti-inflammatory/steroid tablets, facilitating product delivery
- Encourages bone health and overall nutrition and growth as it treats diarrheal diseases, making it appropriate for pediatric use
- Combats osteoporosis associated with long-term steroid use, widening the potential market

Technology

This CaSR nutrient-based oral anti-diarrheal composition is pro-absorptive, anti-secretory and anti-inflammatory. It promotes rehydration and prevents fluid loss to encourage gut healing. The CaSR nutrients treat all types of diarrheal diseases, such as those caused by viruses, bacteria, parasites, bowel inflammatory disorders, food sensitivities and allergies. The nutrients can be easily developed as a new formulation or added to existing products.

The Inventor



Sam Chang, M.D., M.Sc., Ph.D., is a Professor of Gastroenterology at the University of Florida, where he researches inflammatory bowel disease (IBD), irritable bowel syndrome (IBS) and other diarrheal disorders in children. He is focused on discovering mechanisms in the gut that reduce the magnitude and duration of diarrhea. After obtaining his M.D. and M.Sc. degrees in clinical investigation, Dr. Cheng studied molecular biology and genetics as a W.H.O. fellow at Great Ormond Street Hospital in London. He earned his Ph.D. in physiology at Karolinska Institute.

About the Office of Technology Licensing

The amount and diversity of research taking place at the University of Florida generates an average of 300 new discoveries every year. The successful commercialization of these discoveries requires considerable time, effort and resources, and is dependent upon partnerships with commercial entities. During the three decades since the landmark Bayh-Dole Act of 1980 authorized and encouraged universities to commercialize their discoveries, the University of Florida has become a national leader in moving faculty research into the marketplace. Since its inception, the University of Florida Office of Technology Licensing (OTL) has helped to transfer hundreds of technologies from university laboratories to private industry. Noteworthy examples include the famous sports drink Gatorade®, the glaucoma drug Trusopt®, and the termite-colony elimination system Sentricon®. By helping to move technologies out of the laboratory and into the marketplace, OTL helps the university achieve its mission of transferring knowledge for society's benefit while improving the lives of people around the world. We pride ourselves in our reputation as a leader in commercializing discoveries that are curing diseases and making the world a better place.



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