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ASIA EDITION

Nichi Glucan progresses to clinical studies in autism spectrum disorder

June 28, 2021 | Opinion

Journey of a safe food supplement from Japan since 1996



Beneficial effects in autism spectrum disorders of the Japanese food supplement Nichi-Glucan (www.nichiglucan.com), a biological response modifier beta glucan produce of novel strains of a black yeast *Aureobasidium Pullulans* have been observed by neurologists who conducted a pilot clinical study. The recent publication on the potentials of the beta glucans in alleviating ill effects of neuro-inflammation caused by Covid-19 triggered coagulopathy, its complications such as stroke and intracranial hemorrhage in the **Journal of the Neurological Sciences** (doi: 10.1016/j.jns.2021.117554) have attracted neurologists and psychiatrists to undertake clinical studies on the various conditions caused by neuroinflammation because beta glucans have been reported to rejuvenate the Glial cells which are responsible for clearing the post-neural damage debris that cause the psychological or neurological implications, especially in post Covid sequalae, which is termed as 'long Covid'.

According to Dr Raghavan, a developmental pediatrician who undertook studies of Nichi Glucan in kids with autism spectrum disorders (ASD), is of the opinion that the prebiotic effects of Nichi glucan play a vital role in improving the general health of these kids and he adds that being a food supplement with 25 years track record of safety, produced in a **GMP certified facility** is what comes to his mind first, when he recommends the Nichi Glucan for consumption. The feedback obtained from regular consumers in Japan reveals that relief from constipation is one of the major advantages of this nutritional supplement.

GN Corporation (GNC), the global exporter jointly with the manufacturer, Sophy Inc are researching on targeted applications of novel strains such as the N-163 produced **Nichi Glucan-REFIX** in specific health conditions by immune modulation which may have potentials to prevent and manage non-communicable diseases caused by inflammatory overreaction and fibrosis. Nichi Glucan is now available for sale in India through the Amazon portal (https://www.amazon.in/Nichi-Glucan-Beta-1-3-1-6-Glucan/dp/B088NDF5T4) where customers have reported its capability

as a vaccine adjuvant, earlier reported in the publication in **Human Vaccines and Immunotherapeutics** (doi:10.1080/21645515.2021.1880210). In Philippines M/s JCS pharmaceuticals (https://jcspharmaceuticals.com/) have got approval for importing and selling and in Myanmar M/s Zar n Zar (https://www.zarnzar.com/) have got approval for importing and selling the product.

The AFO-202 strain has been earlier reported with potentials for immune enhancement (doi:10.3389/fimmu.2020.01548), especially in the context of COVID-19,by virtue of its effects on prevention of coagulopathy related immune dysregulation (doi:10.1186/s12959-020-00239-6), glucose balancing (doi:10.1007/s40200-020-00664-4; doi:10.1155/2012/895370) and lipid balancing effects (doi:10.3109/19390211.2013.859211) apart from capabilities to induce the **trained immune response (TRIM)** (doi: 10.3389/fimmu.2021.620658).

Research on novel strains of this poly-thermotolerant black yeast derived exopolysaccharide have a hope for path-breaking phenomenal solutions to human beings of the 21st century who are exposed to challenging situations in life-style, working and living conditions, especially after the COVID-19 pandemic. While the N-163 strain produce is likely to have benefits in conditions as fatty liver -Non-alcoholic steatohepatitis (NASH) for which pre-clinical studies are underway, further exploration of other strains which are in the pipeline is likely to have potential solutions for unmet health needs including those common in societies with increased longevity, according to the inter-disciplinary team, AXIS (Antony-Xavier Interdisciplinary Scholastics, a division of GN Corporation).

Neurotransmitters like Alpha-synuclein have been found to be lesser in children with autism. Similarly, for sleep related disturbances in both children and adults, supplementation with melatonin is advocated. When these two components can be balanced or induced by methodologies that don't involve pharmacological drugs or invasive interventions, it may be of immense help in several neurological conditions. Further, with dysbiosis of the **gut microbiota** having been attributed to several neurological disorders, probiotics apart from having been described to be of help, pre-biotic solutions are also reported to be helpful. Thus, beta glucans having a pre-biotic potential are likely to have beneficial effects, for which the GNC team has been undertaking in-depth research including clinical trials in Covid-19 patients.

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