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|  | <p>Bachelor of Science, Chemistry, University of Manchester, 1978-1982 MS, PhD, Chemistry, University of Manchester, 1983-1987 Researcher, G. Schwartz GMBH+Co.KG, 1988-1994 Researcher & CTO, EcoBio tech LTD Japan, 1994-2000 Researcher & CEO, NTS Research & Inc, Canada, 2001-present Researcher Calcium and Bone Health Institute, Marahdeo Holdings, 2012 - present Expert, Engineering plastic, monomer casting nylon Mechanism and physical properties Expert, Method of producing active mineral from granite Expert, Bioinsecticide, Biofungicide, Bioherbicide, Development of natural products for Agriculture, Canada Health Plants Expert, Biotechnical Calcium, SAC, Sigma anti bonding calcium carbonate</p> |
| Presentation Date: | Thursday, 10 May 2018 9:00 AM - 10:30 PM & 2:00 PM - 3:30 PM |
| Venue | SMX CONVENTION CENTER MANILA, Meeting Rooms 7, 8 & 9 |
| Presentation Title: | SIGMA ANTI-BONDING MOLECULE CALCIUM CARBONATE (SAC) IN BONE BUILDING |
| ABSTRACT | <p>According to Choi & Paul Lee (2011), Sigma Anti-Bonding Molecule Calcium Carbonate (SAC) can be used as a treatment for postmenopausal osteoporosis based on the research that showed significant increase of bone mineral density (BMD) and decrease of bone turnover rates as SAC decreases bone turnover mediated osteocalcin and type I Collagen C-terminal telopeptides (CTx). Although there are many postmenopausal osteoporosis treatments available, such as SERMS, Bisphosphonates, Teriparatide, and Calcitonin, nothing has been proven to increase bone mineral density (BMD) and decrease bone turnover rates. Choi & Lee's investigative research (2011) showed, after treating ovariectomized rats for 12 weeks with 0.0012% SAC solution (83/μg/kg), the ovariectomized group treated with SAC had higher BMD (0.2276±0.012 mg/cm²) rates as compared to the group that was not treated with SAC (0.1965±0.012 mg/cm²). Moreover, the ovariectomized group treated with SAC had higher 17β-estradiol and lower osteocalcin and CTx which result in a decrease of bone turnover rates. As SAC solution is verified as a dietary supplement in Canada, the United States, Republic of Korea, Indonesia and Japan, more than 100,000 patients with osteoporosis have tried it since 2012 and showed significant improvement in laboratory BMD tests. Referring to one of the postmenopausal osteoporotic patient's data, the patient took orally 5 to 15mg of SAC daily for 3 months and had experienced her T-score increase to -0.8 from -3.4 which was highly osteoporotic. Strong osteoblastic activity was also observed in the cavity of an extracted infected tooth for patients under SAC treatment which fully filled up the cavity with new bone growth within 10 months without the help of any bone grafting material. While there are currently no significant treatments available for patients with osteoporosis, SAC poses as an innovative solution due to its efficacy in increasing serum calcium level as well as the intracellular calcium level and also decreasing parathyroid hormone (PTH) secretion which may cause unnecessary bone resorption.</p> |

