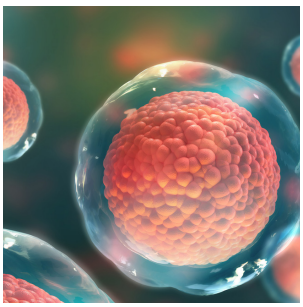
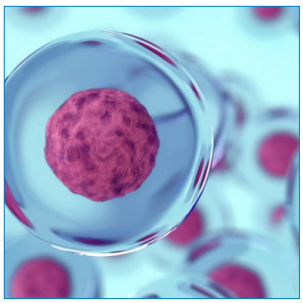
Scientific Tracks & Sessions
March 16, 2022

Diabetes 2022




6th International Conference on

Endocrinology, Diabetes and Metabolism

March 16, 2022 | Webinar

Management of newly diagnosed type 2 diabetes mellitus in alternative medicine: A case reports

Niraj Khatri Sapkota
Bishow Pharma, Nepal

Herbal drugs are usually incorporated plant formed mixture in the treatment of diabetes and other disease in Ayurveda and their reported side effects are very less and cost effective. Type 2 diabetes is a condition of insulin insensitivity or the state of resistance of insulin which leads to impairment of glucose utilization. Debix an Ayurved herbal drugs mixture was provided to manage the newly diagnosed diabetes in otherwise healthy 33 years old male with no history of any other disease or medication, on continuous 4 months of treatment plus recommendation to adopt lifestyle modification and 30 minutes of exercise the patient exhibited normal blood glucose report as well as HbA1c was quite improved and finally reached at normal percentage. This sort of data in Ayurveda clinical case study is scarcely reported and published means no report is generally made in scientific way in Ayurveda hence this case presentation will be beneficial to the Ayurveda practitioner.

The rationale of this case report is, basis of treatment in Ayurveda can be commenced in newly diagnosed diabetes by Debix, a proprietary Ayurvedic medicine manufactured by Sandu Pharmaceutical Pvt.Ltd without any report of side effects under continuous supervision, at least for four months to fully manage the case.

Speaker Biography

Niraj Khatri Sapkota has completed his PhD in Molecular Physiology applications to pharmacology at the age of 32 years from Zhejiang University, China, one of the Thomson Reuters and Elsevier best ranked university of the world; he is now working as an Associate Professor in the Department of Physiology in Chitwan Medical College affiliated to Tribhuvan University, Nepal. He is an active researcher and academician of his country, Nepal. He has published more than 50 papers both original and review papers as a single author or with collaboration in reputed international journals and is serving as a reviewer, advisory and editorial board member and Editor of more than 30 international reputed journals.

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Targeted IL-22 as a therapeutic approach to islet and hepatic dysfunction in obesity

John Prins, Sumaira Hasnain and **Michael McGuckin**
University of Melbourne, Australia

IL-22 is and endogenous cytokine with recognized actions to reduce cellular oxidative and ER stress. IL-22 is under therapeutic investigation and clinical trial in a range of inflammatory disorders but off-target effects are reported, particularly in skin and gut. To address this challenge and improve the therapeutic window for IL-22, we have developed a range of IL-22-based peptide drugs that have a specific moiety targeting the IL-22 to pancreatic islets and liver. Preclinical studies confirm that IL-22 is preferentially targeted to these organs, with minimal exposure to skin and gut. *In vitro* and preclinical data show that the action and efficacy of the IL-22 in unimpaired by the targeting moiety. In a range of mouse models of obesity, T2D and NAFLD twice- weekly sc administration of targeted IL-22 provides significant improvement in insulin levels and glucose tolerance (GTT and ITT). Therapy also significantly improves hepatic steatosis and inflammation, liver weight, and serum transaminases in a dose- dependent manner. Total body weight is reduced with therapy. Hepatic and islet tissue analyses demonstrate reduction in oxidative and ER stress in response to the targeted IL-22 therapy, confirming the proposed mechanism of action. We are currently evaluating the effect of targeted IL-22 in a range of preclinical models of liver disease with prominent steatosis and/or fibrosis and comparing this effect to existing therapies. To date, we have not observed any off-target organ adverse effects of targeted IL-22 and there is no evidence of systemic toxicity. We believe that targeted IL-22 is a promising approach to harnessing the beneficial effects of this endogenous anti-inflammatory cytokine. Given the dual action to improve glucose metabolism and reduce steatosis and hepatic dysfunction, targeted IL-22 may be a useful and efficacious therapy in a range of patients with metabolic dysfunction associated with obesity.

Speaker Biography

John Prins is an endocrinologist and scientist with a longstanding interest in obesity and associated metabolic dysfunction, particularly T2D and NAFLD. He is currently head of the medical school at the University of Melbourne, and senior consultant endocrinologist at Royal Melbourne Hospital. He has over 150 publications and his H-index is 54.

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Discussion of a novel adjunctive therapy for patients with type 2 diabetes and mild cognitive impairment or Alzheimer's disease: A test for the hypothesis that vascular factors are modifiable risks for cognitive impairment

Patrick M Moriarty[1], L Gorby[1], D Salat[2], J Burns[3], T Moreno[4] and **J Helfgott[4]**

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All major dementias share an underlying vascular component. In Alzheimer's disease (AD), nearly 80% of autopsy-confirmed cases show evidence of cerebrovascular disease, doubling the likelihood that neurodegenerative pathology will manifest as dementia or mild cognitive impairment (MCI) earlier in life. Often, vascular pathologies precede neurodegeneration associated with AD. Type 2 diabetes (T2D) involves a complex cascade of cardiovascular malfunction that impairs glucose delivery to neurons and doubles the risk of developing AD. Cerebral hypoperfusion and endothelial dysfunction in T2D may underlie this risk relationship and contribute to neuronal apoptosis. Following the WHO proclamation linking global brain and cardiovascular health efforts, 3 important considerations are necessary to translate clinical evidence into effective interventions for patients with AD: 1) recognizing that vascular components of brain health provide new target opportunities for effective AD prevention; 2) realizing that ongoing efforts to repurpose and reindicate regulatory-approved vascular interventions for AD treatment can offer an innovative, efficient approach to provide safe and quickly effective interventions for dementia; and 3) appreciating that there are under-represented, vulnerable populations with increased burden and more rapid progression of dementia, due to increased risk for cardiovascular comorbidities, higher incidence of T2D, and less access to quality healthcare. Addressing these 3 factors should increase the likelihood of available effective dementia interventions. Specifically, external counterpulsation (ECP) technology offers one novel approach to introduce both an FDA-approved product and a CMS-eligible medical therapy that may be reindicated for the AD and comorbid T2D population. Presently, this therapy is indicated for refractory angina to improve coronary and peripheral hemodynamics. ECP sequentially compresses and decompresses the vasculature of extremities in synchrony with the cardiac cycle to increase blood flow, instigate angiogenesis, and improve endothelial function, all of which have been shown to influence neuronal function and brain health. In light of recent approval of aducanumab, the need for therapies to ameliorate a vital clinical feature of the disease (ie, cognitive decline), and thereby reduce duration of disability, is especially clear.

Speaker Biography

Patrick M Moriarty, MD, is professor of medicine at University of Kansas Medical Center in Kansas City. He is director of Clinical Pharmacology and the Atherosclerosis & Lipid-Apheresis Center. He earned his Doctorate in Medicine and Surgery at University of Rome School of Medicine and Surgery, Italy, and completed his residency in internal medicine and training in clinical pharmacology at University of Kansas Medical Center. He is a fellow of the American College of Physicians, American College of Cardiology, European Society of Cardiology, and National Lipid Association; he was 2014-2015 president of the International Society for Apheresis. He is a manuscript reviewer for multiple journals, and associate editor for *Journal of Clinical Apheresis* and *Journal of Clinical Lipidology*. Dr. Moriarty has published over 100 peer-reviewed articles/chapters. His research activities include atherosclerosis, familial hypercholesterolemia, Lp(a), lipoprotein-apheresis, vascular inflammation, dementia, and hemorheology. He has participated in numerous trials related to dyslipidemia, Lp(a), obesity, hypertension, dementia, and diabetes. He is a member of the scientific advisory board for the FH Foundation. His clinical activities involve the treatment and diagnosis of atherosclerosis and cardiovascular disease. University of Kansas Lipoprotein-Apheresis Center is the largest in North America for treatment of familial hypercholesterolemia and elevated Lp(a)..

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