

1.0 ABSTRACTS:

Diabetes is a significant factor in today's society, particularly after the lockdown period due to Covid-19. People are neglecting their physical and mental health, leading to the development of type-2 diabetes caused by imbalances in diet and exercise. There are well-known treatments for diabetes, such as Metformin, Sulfonylureas, Meglitinides, Thiazolidinediones, DPP-4 inhibitors, GLP-1 receptor agonists, SGLT2 inhibitors, and Insulin. However, combination therapy is often preferred over individual drugs. Regular exercise can also help alleviate these health issues. In our study, we focus on extracting plant compounds from Bougainvillea using different solvents. We hypothesize that these polyphenolic drugs, specifically gallic acid and resveratrol, when combined with providing exercise, can effectively treat diabetes