Diabetes and its major risk factor, obesity, have been the cause of suffering, disability and death for millions of people world-wide. Their prevalence across the globe has also been increasing in recent years with epidemic proportion. Cancer continues to be the leading cause of death and other debilitating age-related diseases, such as arthritis and Alzheimer’s disease, have become a burden to societies especially in the western world. There is no doubt that advances in drug discovery based on ‘One-drug→One-target→One-disease’ principle have led to improvement of peoples’ life suffering from many disease conditions but such approach is highly unlikely to offer a drug of cure for the above mentioned complex diseases; at least in the very near future. How about then a ‘multi-target’ approach through the use of ‘drug-cocktails’ or ‘a multifunctional-drug molecule’? During the past 25 years, researches in our laboratories have focused on the identification of pharmacologically active compounds from medicinal plants. Apart from validating the traditional uses of plants for complex diseases, we have been identifying multifunctional compounds that act at multiple targets of one or more diseases. In this communication, selected case studies from our anti-inflammatory, antidiabetic and anticancer activity studies are presented.

Biography

Habtemariam has completed his PhD and 2 years of postdoctoral research (Strathclyde Institute for Drug Research) and 4 years of lectureship at Strathclyde University. Since then, he has been a leader of researches on bioassays & natural products-based drug development at the University of Greenwich and founder/owner of Herbal Analysis Services. He is an elected fellow of the Royal Society of Medicine and the Royal Society of Chemistry. He has published over 100 papers in peer review journals and has been serving as an editorial board member for many journals.

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