

Symposium

Botanical therapeutics and chronic diseases

Ilya Raskin^a

^aBiotech Center, Foran Hall, 59 Dudley Rd., Cook College, Rutgers University, New Brunswick, N.J. 08901-8520.

Pharmacologically active phytochemicals (botanical therapeutics) have been used historically to treat and prevent diseases. In the US, botanical therapeutics can be developed and marketed as food additives, dietary supplements, and drugs containing a single plant-derived bioactive or mixtures of bioactives. Conventional approaches to drug discovery from plants, based on ethical bioprospecting, high throughput screening, and computer-assisted drug design have limitations that have restricted botanical therapeutics research in the pharmaceutical and food industries. In addition, biopiracy concerns, extract standardization, batch-to-batch consistency, proper botanical vouchering, and identification of actives have curtailed the development and sales of multi-component botanical therapeutics. Fortunately, novel enabling technologies and favorable regulatory changes are making the discovery and development of botanical therapeutics more efficient and less controversial. These technologies are leading to the development of novel, safe, and efficacious botanical therapeutics for major human diseases. The past, present, and future of botanical therapeutic research will be discussed as well as specific examples of recently developed products for inflammation and metabolic syndromes.