Journal of
Chemical Biology & Pharmaceutical Chemistry

Abstract

Rational Design of Cannabinoid-Containing Complex Mixtures (CCCMTM) for Disease-Targeted Therapies

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Abstract:

To discover novel, disease-specific therapies, GBS utilizes rational design principles in creating Cannabinoid-Containing Complex Mixtures (CCCMTM) targeting the endocannabinoid system. GBS incorporates data from high throughput experiments using disease-specific cell and animal models that are combined with computer models of cannabinoid-sensitive receptor interactions in a predictive network pharmacology-based algorithm. The bioavailability of GBS' Cannabinoid-Containing Complex Mixtures (CCCMTM) is enhanced using patent-protected, oral delivery systems including: a. oral dissolving tablets, b. time-released nanoparticles for oral administration, c. oral thin films, and d. gel capsules. Using an animal model of the disease, Proof of Concept has been established for GBS' Parkinson's disease therapy and the Mechanism of Action is being further explored. At the NRC Canada, GBS' Parkinson's Disease CCCM™ achieved the statistically-significant reduction of Parkinson's-like symptoms in an animal model of the disease. Additionally, GBS' neuropathic pain formulations look promising in animal studies. These important preclinical results will be included in GBS' Investigational New Drug (IND) applications with US FDA in order to enter human clinical trial as soon as possible.

CB1 receptor enemies that are incidentally confined were focused on. Mixes with perpetual charge just as intensifies that have expanded polar surface zone were made and tried against CB1 for authoritative and movement. Sulfonamide and sulfamide with high polar surface zone and great movement at CB1 were objectively planned and pharmacologically tried. Further enhancement of these mixes and testing could prompt the improvement of another class of therapeutics to treat issue where the CB1 receptor framework has been ensnared.

Presentation: The endocannabinoid framework is a significant controller of different physiological procedures. Preclinical and clinical investigations show that weakening of the endocannabinoid framework by means of

threat of the sort 1 cannabinoid receptor (CB1) is an astounding methodology to treat corpulence, metabolic condition and related issue. Nonetheless, midway acting foes of CB1 likewise produce unfavorable impacts like gloom and uneasiness. Current endeavors are outfitted towards revelation and advancement of rivals and modulators of CB1 that have restricted cerebrum entrance.

Biography:

Dr. Andrea Small-Howard leverages broad biopharmaceutical industry knowledge and contacts in her current roles as Chief Science Officer and member of the Board of Directors at GBS Global Biopharma, Inc. (GBS). Dr. Small-Howard brings to GBS a strategic vision for creating a novel drug discovery engine and biopharmaceutical drug development program for disease-specific, cannabis-based therapeutics. Dr. Small-Howard has more than 20 years' experience studying cannabinoids and the endocannabinoid system, immunology and cancer treatments; as well as executive experience in the biopharmaceutical industry where she supervised research and development, manufacturing and quality control departments within both US and global biotech divisions.

Publication of speakers:

1. Horton, Jaime & Shiraishi, Takuya & Alfulaij, Naghum & Small-Howard, Andrea & Turner, Helen & Kurokawa, Tatsuki & Mori, Yasuo & Stokes, Alexander. (2018). "TRPV1 is a component of the atrial natriuretic signaling complex, and using orally delivered antagonists, presents a valid therapeutic target in the longitudinal reversal and treatment of cardiac hypertrophy and heart failure". Channels. 13. 10.1080/19336950.2018.1547611.

International coference on pharmaceutics and Drug Discovery

Citation: Abdulmonem Awwad; Botanical Asteraceae hydroxy-cinnamic acid derivatives a Pharmacognostical approach to delay the metabolic syndrome progression