The main purpose of the manuscript is to present information on specific herbal medicines that may serve as good treatment alternatives to conventional antimicrobials for infections sensitive to conventional as well as resistant strains of microorganisms. Expert commentary: Identification of potential new antimicrobials is challenging; however, one source for potential structurally diverse and complex antimicrobials are natural products. Natural products may have advantages over other post-germ theory antimicrobials. Many antimicrobial herbal medicines possess simultaneous antibacterial, antifungal, antiprotozoal and/or antiviral properties. Herbal products have the potential to boost host resistance to infections, particularly in immunocompromised patients. Antimicrobial broad-spectrum activity in conjunction with immunostimulatory properties may help to prevent microbial resistance to herbal medicine. As part of the efforts to broaden use of herbal medicines to treat microbial infections, pre-clinical and clinical testing guidelines of these compounds as a whole should be implemented to ensure consistency in formulation, efficacy and safety.

Fatima, S. et al. (2017). "Design and development of Unani anti-inflammatory cream." *J Ayurveda Integr Med* 8(3):140–144.

Inflammation is the symptom of many diseases like rheumatoid arthritis and osteoarthritis. Many side effects are associated with the Non-Steroidal Anti-inflammatory Drugs (NSAIDs) used as conventional treatment for these conditions. In Unani, there are large number of single and compound drugs for inflammatory conditions. One dosage form of Unani system of medicine is named as Zimad in which paste is formed by mixing powder in oil, water, herbal extract. Zimadat is prepared just before application and used in many disease conditions as resolving, styptic, astringent, and antiseptic. As the pre-application procedure is difficult and also complicated for patients, hence, the present study attempted to modify the form of Zimad into cream. Various batches of cream of Zimad Mohallil were prepared by using extracts of the formulation and by adding additives. Various physicochemical parameters of prepared cream were carried and compared with market cream. The optimized cream of Zimad Mohallil (F4) was selected after preliminary tests and evaluated further. The optimized cream showed good results in physicochemical parameters equivalent to market sample. Zimad Mohallil was converted into convenient cream form by adding minimum additives and benefits could be achieved without any hassle and cumbersome work, which is encountered in crude or paste form. The optimized cream was equivalent to standard market cream.

Feher, P. et al. (2016). "Efficacy of pre- and post-treatment by topical formulations containing dissolved and suspended silybum marianum against UVB-induced oxidative stress in guinea pig and on HaCaT Keratinocytes." *Molecules* 21(10).

Plants with high amounts of antioxidants may be a promising therapy for preventing and curing UV-induced oxidative skin damage. The objective of this study was to verify the efficacy of topical formulations containing dissolved and suspended Silybum marianum extract against UVB-induced oxidative stress in guinea pig and HaCaT keratinocytes. Herbal extract was dissolved in Transcutol HP (TC) and sucrose-esters were incorporated as penetration enhancers in creams. Biocompatibility of compositions was tested on HeLa cells and HaCaT keratinocytes as in vitro models. Transepidermal water loss (TEWL) tests were performed to prove the safety of formulations in vivo. Drug release of different compositions was assessed by Franz