



THE UNIVERSITY of TEXAS

HEALTH SCIENCE CENTER AT HOUSTON

Office of Technology Management

IMMUNOSUPPORTIVE DRUG SPARING DIET

Introduction

This invention is directed to the field of nutritional medicine. Namely, it describes a diet that is immunosupportive, but also inhibits the P450 enzyme in the gut, thus increasing drug bioavailability.

Current Problems

For many patients on an immunosuppressive drug regimen, there is a balance of priorities that must occur. The immunosuppressive drugs save the life of the patient by, for instance, preventing organ rejection. On the other hand, the drugs leave the patient vulnerable to secondary infections and must be taken in sufficient doses to ensure there is an adequate dose at the site of interest. A good solution to this problem would allow patients to continue on their immunosuppressive drug regimen, while maintaining immune function. An even better solution would allow for the same level of treatment with lower doses of the immunosuppressive drugs. The present invention addresses these issues in a safe and inexpensive manner.

The Technology

The present discovery remedies problems in the field by increasing the bioavailability of drugs without the need to increase dose. The invention outlines a diet that is immunosupportive because it contains compounds (i.e. pyrimidines or pyrimidine analogs) that maintain the immune system, but are also drug sparing because compounds (i.e. purines or purine analogs) which stimulate P450 in the gut are omitted. Without P450 stimulated, the metabolism of immunosuppressive drugs in the gut is radically decreased, and bioavailability for the region of interest goes up accordingly. As a result, this diet can be used to maintain immune system responsiveness and obtain a synergistic result for immunosuppressive drugs. This allows for better treatment at the area of interest with lower overall doses.

NON-CONFIDENTIAL TECHNOLOGY DESCRIPTION

The preceding is intended to be a non-confidential summary of a novel technology created at the University of Texas Health Science center at Houston (UTHSCH) and Rice University, for which the University has obtained patent protection.

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