INTRODUCING "LAURICIDIN" LAURIC ACID SUPPLEMENT FROM COCONUT OIL

http://www.firstnaturalsolutions.com/ccp0-display/About_Monolaurin_Lauricidin.html

The antiviral, antibacterial, and antiprotozoal properties of lauric acid and monolaurin have been recognized for nearly three decades by only a small number of researchers: their work, however, has resulted in 100 or more research papers and numerous U.S. and foreign patents. Prof. Dr. Jon J. Kabara performed the original seminal research in this area of fat research. Kabara (1968) first patented certain fatty acids (FAs) and their derivatives (e.g., monoglycerides (MGs) that can have adverse effects on various microorganisms. While nontoxic and approved as a direct food additive by the FDA, monolaurin (Lauricidin®) adversely affects bacteria, yeast, fungi, protozoa, and envelope viruses.

Kabara found that the properties that determine the anti-infective action of lipids are related to their structure: e.g., free fatty acids & monoglycerides. While the monoglycerides are active; diglycerides and triglycerides (fats) are inactive. Of the saturated fatty acids, lauric acid has greater antiviral activity than caprylic acid (C-8), capric acid (C-10), or myristic acid (C-14).

Fatty acids and monoglycerides produce their killing/inactivating effects by several mechanisms. An early postulated mechanism was the perturbing of the plasma membrane lipid bilayer. The antiviral action attributed to monolaurin is that of fluidizing the structure in the envelope of the virus, causing the disintegration of the microbial membrane. More recent studies, indicate that one antimicrobial effect in bacteria is related to monolaurin's interference with signal transduction/toxin formation (Projan et al 1994). Another antimicrobial effect in viruses is due to lauric acid's interference with virus assembly and viral maturation (Hornung et al 1994). The third mode of action may be on the immune system itself (Witcher et al, 1993).

Antiviral Effects

Hierholzer and Kabara (1982) first reported the antiviral activity of the monoglyceride of lauric acid (monolaurin) on viruses that affect humans.. They showed virucidal effects of monolaurin on enveloped RNA and DNA viruses. This work was done at the Center for Disease Control of the U.S. Public Health Service. This study was carried out using selected virus prototypes or recognized representative strains of enveloped human viruses. All these viruses have a lipid membrane. The presence of a lipid membrane on viruses makes them especially vulnerable to lauric acid and its derivative monolaurin. These initial findings from the Center of Disease Control (CDC) have been confirmed by many other investigators.

Research has shown that enveloped viruses are inactivated by added fatty acids and monoglycerides in both human and bovine milk (Isaacs et al 199 1). Others (Isaacs et al 1986, 1990, 1991, 1992; Thormar et al 1987) have confirmed Kabara's original statements concerning

the effectiveness of monolaurin.

Some of the viruses inactivated by these lipids are the measles virus, herpes simplex virus (HSV-1 and -2), herpes family members (HIV, hepatitis C, vesicular, stomatitis virus (VSV), visna virus, and cytomegalovirus (CMV). Many of the pathogenic organisms reported to be inactivated by these antimicrobial lipids are those know to be responsible for opportunistic infections in HIV -positive individuals. For example, concurrent infection with cytomegalovirus is recognized as a serious complication for HIV positive individuals (Macallan et al 1993).

Thus, it would appear imperative to investigate the practical aspects and the potential benefit of a nutritional supplement such as monolaurin (Lauricidin®) for microbial infected individuals. Until now few nutritionists in mainstream nutrition community seem to have recognized the added benefit of antimicrobial lipids in the support of infected patients. These antimicrobial fatty acids and their derivatives are essentially nontoxic to man. According to the published research, lauric acid is one of the best "inactivating" fatty acids, and its monoglyceride is even more effective than the fatty acid alone (Kabara 1978, Sands et al 1978, Fletcher et al 1985, Kabara 1985).

It should be emphasized that lauric acid cannot be taken orally because it is severally irritating. Lauricidin® on the other hand, a derivative of lauric acid chemically bonded to glycerin to form monolaurin, can be taken orally without any problem.

Antibacterial Effects

The potentially pathogenic bacteria inactivated by monolaurin include Listeria monocytogenes, Staphylococcus aureus, Streptococcus agalactiae, Groups A, streptococci-gram-positive organisms, and some gram-negative organisms (Vibrio parahaemolyticus and Helicobacter pylori).
Decreased growth of Staphylococcus aureus and decreased production of toxic shock syndrome toxin-l was shown with monolaurin (Holland et al 1994). Monolaurin was 5000 times more inhibitory against Listeria monocytogenes than ethanol (Oh & Marshall 1993). In vitro monolaurin rapidly inactivate Helicobacter pylori. Of greater significance there appears to be very little development of resistance of the organism to the bactericidal effects (Petschow et al 1996) of these natural antimicrobials.

A number of fungi, yeast, and protozoa are also inactivated or killed by monolaurin. The fungi include several species of ringworm (Isaacs et al 1991). The yeast reported to be affected is Candida albicans (Isaacs et al 1991). The protozoan parasite Giardia lamblia is killed by monoglycerides from hydrolyzed human milk (Hemell et al 1986, Reiner et al 1986, Crouch et al 1991, Isaacs et al 1991).
Chlamydia trachomatis is inactivated by monolaurin (Bergsson et al 1998). Hydrogels containing monocaprin/monolaurin are potent in vitro inactivators of sexually transmitted viruses such as HSV-2 and HIV-1 and bacteria such as Neisserian gonorrhea (Thormar 1999).

Monolaurin does not appear to have an adverse effect on desirable gut bacteria, but rather on only potentially pathogenic microorganisms. For example, Isaacs et al (1991) reported no inactivation of the common Esherichiacoli or Salmonella enteritidis by monolaurin, but major inactivation of Hemophilus influenza, Staphylococcus epidermis and Group B gram positive streptococcus.

The Problem of Antibiotics

The phenomenal rate of prescriptions dispensed for antibiotic use, and to a lesser extent, antiviral has grown exponentially in the past several decades. Antibiotic has limited specificity and generally does not recognize “good” bacteria (often referred to as probiotics or for life) from “bad” bacteria (meaning those bacteria that may cause disease.) Antibiotics try to destroy all bacteria and are usually unsuccessful.

More antibiotic therapy may start perpetuating a chronic illness. The cycle of antibiotic therapy may go on for months and months, and repetitious indiscriminate use of antibiotics destroys weak bacteria and sets up the stage for the more virulent bacteria to survive (as in survival of the fittest). The new, stronger, pathogenic bacteria are now “resistant” to the established antibiotic and another antibiotic must be found to fight the new pathogen. We are rapidly approaching that point in history of having super bacteria: disease causing bacteria that are unaffected by any antibiotic. In its failure, antibiotic therapy has taken with it the health of those same individuals it strives to help.
The great advantage of Lauricidin® is that it does not produce resistant microorganisms during use. Not only does Lauricidin® not produce resistance but also it is known to help resistant organisms from forming.

Lauricidin has been proven to deactivate the following in laboratory tests:

Viruses

- HIV or HIV-1, -6 Visna virus
- Herpes simplex virus-i (HSV-1 &2) Vesicular stomatitis virus (VSV)
- Measles virus Rubella virus
- Epstein-Barr virus (EBV) Respiratory syncytial virus
- Influenza virus Dengue virus (Type 1-4)
- Leukemia virus Cytomegalovirus (CMV)

- Semliki forest virus Lymphocytic choriomeningitis
- Human papilloma virus (HPV) Pneumovirus

Bacteria

- Gram-positive organisms Gram-negative organisms
- Bacillas anthracis (Anthrax) Chlamydia pneumonia
- Listeria monocytogenes Neisseria gonorrhoeae
- Staphylococcus aureus Helicobacter pylorus
- Groups A, B, F & G streptococci Mycoplasma pneumonia
- Streptococcus agalactiae Vibrio parahaemolyticus
- Mycobacteria
- Clostridium perfringens

Yeasts, Fungi, and Molds

- Aspergillus Niger Malassezia, species
- Saccharomyces cerevisiae Penicillium citrinum
- Ringworm or tinea (Trichophyton) Candida utilis
- A number of protozoa like Giardia lamblia are also inactivated or killed by Lauricidin®