

LAURIC.ORG PRESS RESPONSES

Combating Crohn's Disease: Lipid-Coated Measles Virus Inactivated by Monoglycerides

June 1, 2000, lauric.org - In an editorial "New Therapeutic Approaches to Crohn's Disease," RB Sartor (*NEJM* 2000;342:1664-6) reports that "Crohn's disease is an idiopathic, immunologically mediated disorder in which medically or surgically induced remissions are followed by relapses... [and notes that] ...goals of treatment are to induce and then maintain remission through the long-term use of nontoxic agents." Sartor reviews the several treatment protocols for chronic Crohn's disease reported in *NEJM* June 1, 2000. These include the use of growth hormone (somatropin) and a high-protein diet (AE Slonim et al 342:1633-37) and methotrexate (BG Feagan et al 342:1627-32). Both treatments are noted to have potential for unanswered questions and/or side effects, eg., development of tumors with growth hormone treatment and possible liver toxicity with methotrexate.

Feagan et al considers Crohn's disease a chronic inflammatory disorder whose cause is still unknown, but notes that since "long-term use of corticosteroids is poorly tolerated... [a]...safe and effective long-term treatment...[as an alternative to corticosteroids]...is desirable." Feagan et al suggest that a low dose of methotrexate is appropriate. Slonim et al noted that infection in the gut, which results in altered immune response, is still considered a likely cause by some.

A number of theories about what causes Crohn's disease have been published, but none has been proven. The most popular theory is that the body's immune system reacts to a [virus](#) or a [bacterium](#) by causing ongoing inflammation in the intestine. People with Crohn's disease tend to have abnormalities of the immune system, but clinicians do not know whether these abnormalities are a cause or result of the disease.

There have been anecdotal reports on the People's Pharmacy web site (e.g., 3/08/1999, 1/10/2000) about the beneficial effects of consuming [coconut](#) in the form of macaroons as an adjunct treatment for chronic Crohn's disease. Coconut meets the definition of a nontoxic agent. Although the usefulness of such treatment has not been rigorously tested in clinical trials, there is published scientific research identifying low level [measles virus](#) as a major cause of chronic Crohn's disease. (J Lewin et al *Gut* 1995 36:564-9; FA Balzola et al *Eur J Gastroenterol Hepatol* 1997 9:661-3; P Daszak et al *J Clin Pathol* 1997 50:299-304; SM Montgomery et al *Gastroenterology* 1999 116:796-803; AJ Wakefield, et al. *Ital J Gastroenterol Hepatol* 1999 31:247-54).

The measles virus is a lipid coated virus and lipid coated viruses are known to be responsive to the killing effects of [monoglyceride derivatives](#) of the medium chain fatty acids [lauric acid](#) and [capric acid](#) found in the fat in coconut (monolaurin and monocaprin) (as reviewed by MG Enig 1998). There is thus good reason to look at this safe and effective [functional food](#) as [adjunct nutritional treatment](#) of such a chronic relapsing disorder for which other treatments are not without side effects.

NEJM: AZT may harm fetus unnecessarily in HIV-positive pregnant women

December 1, 1999, lauric.org - Ioannidis and Contopoulos-Ioannidis note in their Nov. 25 1999 NEJM letter to the editor that the study by Mofenson et al (August 5, 1999 NEJM) on perinatal transmission of [HIV](#) in women treated with zidovudine (AZT), did not support the concluding statement by Mofenson et al that antiretroviral therapy "should be recommended to all infected pregnant women regardless of their HIV-1 RNA levels". The authors also report that they have extended the results of Garcia et al (NEJM Aug 5 1999) on the predictive value of viral load to 10 studies and noted that in women with low viral loads (below 1000 copies per milliliter) there are no lower rates of transmission with treatment with AZT as opposed to no treatment. Although both Mofenson et al and Garcia et al agree that comments by Ioannidis and Contopoulos-Ioannidis are correct, they nevertheless support the use of AZT to reduce the risk of transmission of [HIV-1](#) or other treatment regimens for those women who do not wish to expose the fetus to antiretroviral drugs during pregnancy. For women who elect the latter course, Lauric.org continues to suggest the safe and effective adjunct dietary supplementation with [sources](#) of [lauric acid](#) and [capric acid](#), which are known for their effectiveness in significantly lowering [viral loads](#).

Lauric.org adds its thoughts to the Fauci review of "The AIDS Epidemic - Considerations for the 21st Century"

October 6, 1999, lauric.org - In a special article on the current status of the "[AIDS Epidemic - Considerations for the 21st Century](#)" (NEJM 30 Sept 1999), NIH researcher Anthony S. Fauci, M.D. reviews the epidemic's history and discusses future hopes for more effective treatments. Although the epidemic's spread is said to have reached a plateau in the U.S., the number of new infections each year is nevertheless at "an unacceptable level of 40,000." Worldwide, the estimate is 5.8 million new [HIV](#) infections in 1998 and "the economic costs of the epidemic are staggering..." with an estimated \$14 billion per year for "prevention and treatment alone."

Fauci notes that despite benefits of the antiretroviral therapies, many HIV-infected people have inadequate responses, cannot tolerate the toxic effects, or have difficulty handling the complex combinations of the pills, foods and liquids and times of dosing. After discussing the successes as well as limitations of the current antiretrovirals, Dr. Fauci points out that "the development of a new generation of therapies remains a major priority." Current therapies include treatment of pregnant women who are [HIV+](#) to prevent vertical transmission to their infants, and topical microbicides for use

as substances to prevent transmission of [HIV](#) during sexual contact. Other desired therapies urged by Fauci include development and use of vaccines to blunt the disease.

Adjunct treatment that would further improve the response of antiretroviral treatment of pregnant women, through a lowering of their viral load, is especially desirable since the vertical transmission remains high if the viral load is high in spite of treatment with the approved antiretroviral zidovudine. An adjunct treatment that would lower viral load and augment vaccine effects is also desirable.

Effective adjunct treatment can be in the form of totally nontoxic functional foods to supply sufficient amounts of the antimicrobial fatty acids lauric and capric acids, which are known for their killing effect on [lipid coated viruses](#) such as [HIV](#). [Lauric](#) and [capric acids](#) are found in foods that contain coconut fat (e.g. [macaroons](#), [coconut milk](#), etc.). Such would be relatively inexpensive and easy to use in the developing as well as the developed countries, and [coconut fat](#) has an added benefit of improving immune function.

Lauric.org Comments on JAMA Report: Reducing Viral Loads in Breastfeeding Mothers Lowers Transmission Rate

August 27, 1999, lauric.org - Miotti and colleagues, [JAMA](#) August 25, 1999 report the results of a study measuring "[HIV](#) Transmission Through [Breastfeeding](#)." They conclude that the risk of transmission is greatest in the early months of [breastfeeding](#). The cumulative rates were 3.5%, 7.0%, 8.9%, and 10.3% at the end of months 5, 11, 17, and 23 respectively. The incidence per month was reported as 0.7% during the period from age 1 to 5 months, 0.6% during the period from age 6 to 11 months, and 0.3% during age 12 to 17 months. The significance for the trend was $P=.01$. [Lauric.org](#) notes that the inclusion of a source of [lauric acid](#) to the diets of the breastfeeding [HIV](#) positive mothers would help to lower the level of virus in their milk and thus could help to lower the rate of transmission in populations such as these mothers in Malawi where [breastfeeding](#) is important for survival of the infant. Adding a functional food such as [coconut](#) to the mother's diet would be beneficial because it would provide increased [lauric](#) and capric acid in [mother's milk](#).

Lauric.org: HIV-Positive Mothers Can Make the Right Choice With Adjunct Diet

August 27, 1999, lauric.org - In an accompanying editorial in the same issue of [JAMA](#), Fowler and colleagues ask "When Is [Breastfeeding](#) Not Best? The Dilemma Facing [HIV](#)-Infected Women in Resource-Poor Settings", and conclude that "...many women in resource-poor settings will be faced with the difficult dilemma of making choices regarding [breastfeeding](#) with very limited information." In part this may be related to the fact that the [World Health](#)

[Organization](#)'s Global Programme on AIDS has "recommended that in resource-poor settings with high infant mortality...both [HIV](#)-negative and [HIV](#)-positive women should be counseled to [breastfeed](#)," but counseling to identify who is [HIV](#)-positive and then to provide information on available interventions. Fowler et al note that some studies have found varying risks of transmission related to viral load or immunologic defenses of the infant. Listing several important "...basic research gaps that still need to be addressed...", Fowler et al point out that one research gap needing to be understood involves "...factors affecting viral load in [breast milk](#)...." [Lauric.org](#) agrees that one such factor capable of affecting viral load to the benefit of the infant would be the addition of [functional foods](#) containing [lauric](#) and [capric acid](#) in the mother's diet.

Harry G. Preuss, MD of Georgetown University Medical Center Joins Lauric.org's Medical Advisory Board

August 19, 1999, [lauric.org](#) - Harry G. Preuss, MD of the Georgetown University Medical Center has recently joined [lauric.org](#)'s Medical Advisory Board. As a Professor of Medicine and Pathology and one of Georgetown University's leading clinicians, as well as Co-Chairman of Georgetown University's Institutional Review Board (IRB) -- overseeing all clinical protocols at Georgetown University Medical Center -- Dr. Preuss brings to [lauric.org](#)'s Medical Advisory Board a wealth of clinical experience, as well as valuable insight into the effective development of [proof-of-concept trials](#) and [protocols](#).

Lauric.org: Mother-Infant HIV Transmission Could Be Reduced through Viral Lowering with Lauric and Capric Acid

August 6, 1999, [lauric.org](#) - Garcia et al, ([New England Journal of Medicine August 5, 1999; 341:394-402](#)) have reported that the maternal plasma [HIV-1](#) RNA levels (viral load) are predictive of the risk of perinatal transmission, although not of the timing of that transmission. This report is from The Women and Infants Transmission Study, an ongoing multicenter, prospective study of the perinatal transmission of [HIV-1](#) and the natural history of [HIV-1](#) infection in pregnant women and their infants.

The study included women who were treated with zidovudine and those who were not. With an increasing geometric mean of the levels of plasma HIV-1 RNA levels (viral load) there was an increasing rate of transmission from mother to infant up to levels exceeding 100,000 copies of virus per milliliter (mL). When the maternal level was less than 1000 copies of virus per mL (0 of 57 women), the rate was zero percent; when the level was between 1000 and 10,000 copies per mL (32 of 193 women), the rate was 16.6 percent; when the level was between 10,001 and 50,000 copies per mL (39 of 183 women),

the rate was 21.3 percent; when the level was 50,001 to 100,000 copies per mL (17 of 54 women), the rate was 30.9 percent; and when the level was greater than 100,000 copies per mL (26 of 64 women), the rate was 40.6 percent.

The highest rate was 63.3 percent for women who had levels of virus greater than 100,000 and who had not received zidovudine. However, for women whose levels were between 50,000 and 100,000, the rate of vertical transmission was the same whether they received zidovudine (31.2 percent) or did not received zidovudine (31.6 percent).

[Lauric.org](#) believes that this research reinforces the comments from an [earlier response](#) by lauric.org. Monolaurin, the [monoglyceride](#) of lauric acid, destroys the [HIV-1](#) virus. If [HIV-1](#)-infected pregnant women were given a [source of lauric acid](#) during pregnancy, there could be additional lowering of viral load, which could be helpful in preventing vertical transmission of the virus.

Further, those infants who acquire [HIV-1](#) infection by vertical transmission from their [HIV-1](#)-infected mothers are candidates for the [adjunct antiviral nutritional support](#) from [lauric fats](#) in their infant formula. Since the current medical recommendations prevent these infants from receiving [human milk](#) from their [HIV-1](#)-infected mothers, they need to be given infant formulas. There was a time when most of the infant formulas in the United States could be counted on to have a source of [lauric acid](#) and capric acid in their formulation to match that found in human milk. This is no longer true for many of the infant formulas. Additionally, older [HIV-1](#)-infected children, who consume regular diets, could benefit from a source of [lauric acid](#) such as [desiccated coconut](#) or coconut milk products.

Lauric.org Agrees with American Academy of Pediatrics: Soy-Based Infant Formulas Are Not Appropriate

August 4, 1999, lauric.org - The debate over the safety of soy infant formula has emerged again in the *New York Times* article (August 3, 1999) "Use of Soy For Babies Is Focus of Debate" by correspondent John O'Neil. Citing a 1997 study published in *Lancet*, O'Neil noted that soy formulas provide the infants who consume them with enough phytoestrogens to produce levels in their blood several thousand times [actually 22,000 times according to the *Lancet* article] those levels seen in babies who consumed [breast milk](#) or cow's milk. This was especially troublesome to parents who were concerned that such levels could lead to delayed puberty in boys and accelerated puberty in girls. A group of researchers in New Zealand unsuccessfully attempted to ban soy formula because of these concerns.

Dr. Kenneth Setchell, one of the lead authors of the *Lancet* article opposed the concerns of the New Zealanders. Dr. Setchell decided to put a spin on the issue and suggested that tinkering with the hormones in infants through the soy phytoestrogens might help with breast and prostate cancer. [This same Dr. Setchell has in the past admitted that these soy phytoestrogens can be a

problem in some women with oestrogen-receptor-positive breast cancer. *Lancet* 1998] Dr. Susan Baker, a professor of pediatrics and spokesperson for the [American Academy of Pediatrics](#) could not help answer the question of "what is a parent to believe," since "the uninspiring answer was that nobody knew."

[Lauric.org](#) notes that both Dr. Setchell and Dr. Baker listed [human milk](#) as best. Dr. Baker said that the Academy "ranked soy as a third choice behind [breast milk](#) and cows' milk formula" and that the Academy "takes a very strong stand that [mothers' milk](#) is the most important nutrient and should be the sole food for the first four to six months of life." Dr. Baker also noted that soy formula was not appropriate for premature or low-weight babies because they do not create bone mass adequately on soy milk. Although most soy infant formulas contain [lauric](#) and [capric acid](#) from the small amount of added [coconut](#) oil, there are some that are completely devoid of [lauric](#) and [capric acids](#) and thus missing the desired [antimicrobial properties](#) found in mothers' milk.

Lauric.org Responds to Food Writer's Pronouncements

August 1, 1999, lauric.org - Andrea Platzman, R.D. contributing editor of *Food Product Design*, writes in the July 1999 Nutrition Notes column that "...Fatty acids of a 12:0 [lauric acid] and 14:0 [myristic acid] construction, such as those found in coconut...are most detrimental, because they raise LDL levels." Lauric.org finds it necessary to point out her obvious errors: (i) fatty acids in coconut have always been found to both raise the HDL levels and improve the total cholesterol to HDL ratio, both of which are desirable, and (ii) these saturated fatty acids significantly lower the levels of the undesirable lipoprotein (a). Unfortunately, Ms. Platzman's pronouncements, like many other health writers with little or no training in lipid biochemistry, provides readers with a great deal of misinformation. Lauric.org is witnessing a revisionist renaissance among health and food writers in the U.S., actively shifting some of the blame for which fats are causing heart disease. For example, three decades ago, the NIH Heart, Lung and Blood Institute and American Heart Association were busy promoting the massive consumption of polyunsaturates to prevent heart disease; at that time the monounsaturates were said to be neutral in their effects, only the saturates were bad, and as regards the [trans fatty acids](#), they didn't even exist. Now, Ms. Platzman quotes a university dietetics professor, who admits that both "[s]aturated fat and polyunsaturated fat are linked with higher incidence of cardiovascular disease, compared to monounsaturated fats such as olive and canola oils..." Further, she notes that "[k]eeping *trans* fatty-acid intake to a minimum is also important in reducing cardiovascular-disease risk." **[END]**

Lauric.org Notes Dual Importance Regarding CMV and HIV

July 7, 1999, lauric.org - Kovacs, et al ([N Engl J Med. July 8, 1999; 341: 77-84](#)) have reported from a prospective study that infants born to HIV-1-infected mothers who are found to also be HIV-1-infected are at greater risk for the development of [cytomegalovirus \(CMV\)](#) and for [HIV-1](#) disease progression than are those infants born to HIV-1-infected mothers but who are not themselves HIV-1-infected.

The researchers concluded that "HIV-1-infected infants who acquire [CMV](#) infection in the first 18 months of life have a significantly higher rate of disease progression and central nervous system disease than those infected with HIV-1 alone." Further, among those infants who are HIV-1-infected, the infants who develop [CMV](#) continue to have a higher rate of [CMV](#) and more severe disease at four years of age.

Infants who are HIV-1-infected have a higher rate of [CMV](#) infection at 6 months than those who are not HIV-1-infected (39.9 vs 15.3 percent). At age 18 months, those infants who are HIV-1-infected and who also have [CMV](#) infection have higher rates of HIV-1 disease progression (70.0 percent) than those who are only HIV-1-infected (30.4 percent). In those children who were only HIV-1-infected, rapid progression of HIV-1 disease was related to their having higher levels of virus (i.e., higher viral load).

[Monolaurin](#), the monoglyceride of lauric acid, destroys [CMV](#), as well as other herpes viruses and HIV-1. If HIV-1-infected pregnant women were given a source of lauric acid during pregnancy, there could be additional lowering of viral load, which could be helpful in preventing vertical transmission of the virus.

Further, those infants who acquire HIV-1 infection by vertical transmission from their HIV-1-infected mothers are candidates for the adjunct antiviral nutritional support from lauric fats in their infant formula. Since the current medical recommendations prevent these infants from receiving human milk from their HIV-1-infected mothers, they need to be given infant formulas. There was a time when most of the infant formulas in the United States could be counted on to have a source of [lauric acid](#) and [capric acid](#) in their formulation to match that found in [human milk](#). This is no longer true for many of the infant formulas.

The older HIV-1-infected children, who consume regular foods, could benefit from a source of lauric acid such as [desiccated coconut](#) products.

Lauric.org Comments on Icelandic HIV Research

July 1, 1999, lauric.org - Dr. Halldor Thormar, the Icelandic scientist, who previously showed that monolaurin, which comes from the fat in coconut, kills lipid coated DNA and RNA viruses including HIV and herpes viruses as well as other microorganisms including gram positive bacteria has just announced the

potential effectiveness of monolaurin dissolved in a gel in killing HIV. Monolaurin also comes from the fat in [coconut](#) in the form of capric acid (C: 10). Thormar and his colleagues plan to continue the tests with monolaurin against chlamydia and herpes simplex virus.

Lauric.org Responds to FDA Ban on DHA

June 1, 1999, lauric.org - Several fatty acids are very important for health and development. Among them are lauric acid and docosahexaenoic acid (DHA). These two fatty acids are found in human milk from lactating mothers. Lauric acid is the medium-chain fatty acids used by the infant to make antimicrobial monoglycerides to keep the infant from getting infections. DHA is a long-chain omega-3 fatty acid that is absolutely essential for proper brain development in the infant, and for healthy vision. Children and adults also need a source of both lauric acid and DHA. Lauric acid can only be obtained through foods and the best source in the United States is coconut including [sulfite-free desiccated coconut](#). Children and adults can make their own DHA if they have adequate dietary consumption of the precursor to DHA, which is alpha-linolenic acid, and if they also don't have too much omega-6 vegetable oils or partially hydrogenated vegetable oils (trans fatty acids) in their regular diets. The best source of preformed DHA is cod liver oil and fatty fish such as salmon, sardines, and mackerel. **(Copyright 1999 lauric.org)**

Pact Signed to Test Coco Oil for AIDS Treatment

Feb. 18, 1999, Manila - The official agreement covering the first clinical tests using coconut oil and its fatty acid, [monolaurin](#), to treat HIV/AIDS patients has been signed. The memorandum of understanding among the three agencies doing the clinical tests - the Philippine Coconut Research and Development Foundation (PCRDF), United Laboratories and the San Lazaro Hospital - was signed yesterday, making possible the first medical research in the Philippines against AIDS.

PCRDF Chairman Maria Clara Lobregat told reporters that government will not spend a single centavo with this trial, and it will determine the efficacy of coconut chemicals. Health Secretary Alberto Romualdez said the trial needs approval and protocol, and institutional ethics review board will assess issues on using human subjects for research purposes. He welcomed the fact that the government will not shoulder the expenses for the tests. "It is very expensive, but since the DOH does not have that kind of money and the private sector does, then we can ask patients to participate," he said.

The tests involve 15 Filipino patients: 12 females and three males in the early stages of HIV infection. Tayag said the trial seeks to achieve what experts in the United States have found out in research - - that coconut chemicals increase the CD4 cell count and lower the viral load of HIV patients to undetectable levels. Dr. Eric Tayag, chief epidemiologist of the hospital, said

the CD4 cells are the body's first line of defense against infection and disease, but they are also the first to be attacked by the HIV. The viral load is the amount of the virus in the blood. It will cost the 15 patients P300,000 each in coconut oil and monolaurin capsules, but he said this will not cost the hospital anything.

Dr. Conrado Dayrit, president of the National Academy of Science and Technology and a member of the PCRDF board, explained that HIV, the virus that causes AIDS, has a fatty envelop, and monolaurin can penetrate and dismember this envelop rapidly when ingested. [Monolaurin](#) is a substance derived from [lauric acid](#), a component of the coconut. It is the most important and most effective component of coconut oil. "It disrupts the membrane coating the envelop by softening it first. If this happens, the virus will die," he said.

The PCRDF is funding the trial, but United Laboratories will receive the technology of processing the [monolaurin](#) capsules. ([Philippine Headline News Online](#))

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