

# SWANK MULTIPLE SCLEROSIS NEWSLETTER



April 1993

From the office of Roy L. Swank M.D., Ph.D.  
Editor: Barbara Brewer Dugan

Edition #50

## LORENZO'S OIL

Lorenzo's oil has kicked up quite a storm in the daily news columns, but hardly a stir in the scientific press. The reason is clear and depends upon which side of medicine you stand. If you are a Doctor or medical scientist you will wait for something concrete from the scientific press. If you are a patient you cannot wait and, if energetic and determined you will forge forward without reviewing what may be known and create your own "scientific" news. The regrettable part is that the news medium is more interested in the emotional "halo" than in a critical examination of evidence. Therefore, elaboration of the emotional state results.

Now that the emotions have run their course, a small trickle of facts concerning the disease (Adrenoleukodystrophy, ALD) are emerging and the entire picture takes on a different form and color.

This disease has been under study for some years and a large number of cases are being seriously studied. At present the course of the disease and studies of the blood are the principle targets of research. It seems that what has happened to Lorenzo on the "Lorenzo oil" happens without this oil in a large number of cases receiving no treatment. Further it has been known that the feeding of mono and poly unsaturated oils to patients results in lowering of the blood levels of saturated fats (one of the suspected culprits in ALD cases).

So when we look into it, except for high emotions and dedicated parental care, there is nothing real to be reported at present. A serious look at the disease, a review of what is know--not what one wishes, is detailed in a recent article in "The Lancet," vol. 341, February 27, 1993, p. 544, written by Hugo W. Moser.

His account is a factual, balanced recitation of the situation as it now stands. It should be read by anyone interested in the problem or in how the controversy developed.

In the meantime a team of investigators from France, Germany and the U.S.A. report an association between ALD and a gene that codes for peroxisomal transport protein. This was found in 6 of 85 patients with ALD (published in Nature, vol. 361:726-730, 1993).

How this plays in ALD will be interesting to follow. It is worthwhile keeping in mind that this finding follows the wake of a concentrated long term study assisted financially by "The United Leukodystrophy Foundation."

## OLIVE OIL FACTS

Olive oil has been acclaimed for its value in lowering blood cholesterol. Monounsaturated fatty acids may be more effective than polyunsaturated fatty acids in this respect.

Early studies by Swank conducted in Montreal and later in Messina, Italy and Tokyo, Japan, long before an interest in heart disease had developed, showed that countries with diets rich in monounsaturated fatty acids (olive oil) suffered a very low incidence of heart disease and multiple sclerosis (1,2,3).

Subsequent studies by others in both Italy and Greece have also revealed a low incidence of heart disease. The general findings are that countries with diets rich in olive oil developed less coronary heart disease in large part because their diets are low in fats. In the United States dietary habits are gradually switching from saturated fat (lard, butter, margarine) to polyunsaturated

fat. At this same time olive oil is making its way into the kitchen.

On many occasions I have been asked by patients, how do I select better olive oils? Much of the selection is based on personal taste. Many fine olive oils are produced in California, primarily in the Sacramento and San Joaquin valleys. Like fine wines, many of the oils with rich character come from Europe, mainly Greece, Italy and Spain. Each variety of oil has its own distinct flavor depending on the olives in use.

Olives picked in early fall usually produce a rich green colored oil with a sharp flavor, which may or may not be a good selection for your first experience with olive oil. Olives harvested in the winter to early spring will produce an oil gold in color and has a fruitier taste. If oils are produced from a combination of olives of different seasons a different flavor will result. I have usually found that the lighter the color the lighter the flavor.

Like wine, olive oil is made by first crushing the fruit and then aging it for three to six months. It is important to know how to read your labels. You may be paying for claims on the label that are not reliable. If a label reads "No Cholesterol" and costs several dollars more a bottle, beware. Since all fruit and vegetables are cholesterol free, this is not honest and aims to mislead the consumer. Cold pressed is another misnomer. No heat is used when crushed olives are pressed for oil. As we stated before olives can be harvested most anytime so if a label claims "Early Harvest" don't pay extra for it.

The difference in Extra Virgin and Virgin really refers to the concentration of oleic acids. An oil containing a lesser amount of Oleic acid (1%) is considered to be an Extra Virgin oil. If it contains 3 percent of this acid it is Virgin. If labeled as pure olive oil it will contain 3.3 per-



cent. Oils that contain more than 3.3 percent Oleic Acid are REFINED BY A PROCESS THAT USES HEAT AND POSSIBLY CHEMICALS. This process will make the oil neutral in color and taste. To enhance the flavor these oils will be blended with Virgin or Extra Virgin olive oils and sold as pure olive oil.

For cooking purposes it is unnecessary and costly to use only the Extra Virgin olive oil. Pure olive oil is satisfactory. Using Extra Virgin oil will not give you more flavor as the heat tends to destroy the flavor.

Storing your olive oil is important. Like polyunsaturated oils, once exposed to air olive oil slowly becomes rancid. This process occurs more rapidly for polyunsaturated oils. Olive oil should be kept in a cool dark place and air tight. It is not necessary to refrigerate it. Frequent chilling and warming of the oil tends to break it down and contributes to rancidity. Unopened oils will stay fresh for up to two years. Opened oil will last six months to one year.

Using olive oil in the Swank diet elicits a variety of new tastes. These oils are counted in the diet the same as poly-

unsaturated oils. ENJOY THEM.

### POLYUNSATURATED FAT:

Many patients are curious concerning the value of polyunsaturated fats. I hope the following table will help in your selection. Remember to refrigerate your polyunsaturated oils and not leave them uncapped for long periods on your counter top or in your cupboard. If your oil clouds (with the exception of Peanut Oil) or becomes hard in the refrigerator do not use as this is an indication of hydrogenation. Do not heat your oils to the smoking point and do not re-use oils. Margarine, vegetable shortening or products prepared with hydrogenated oils are all considered the equivalent of saturated fats and are not allowed in the diet. Remember that a minimum of 4 teaspoons of unsaturated oil (Poly or Mono) and a maximum of 10 teaspoons is both allowable and nutritious in your diet. If your energy expenditure is high increase your oils but do not exceed 10 teaspoons.

Swank, R.L. The Influence of Ecologic Factors on Blood Viscosity and Sedimentation and on Serum Cholesterol *Am. J. Clinical Nutrition*, May, Vol. 10, No. 5, pp. 418-432, 1962.

Swank, R.L. The Influence of Low-Fat Diet on Blood Lipid Levels in Health and in Multiple Sclerosis *Am. J. Clinical Nutrition*, January, 223, pp. 25-34, 1952

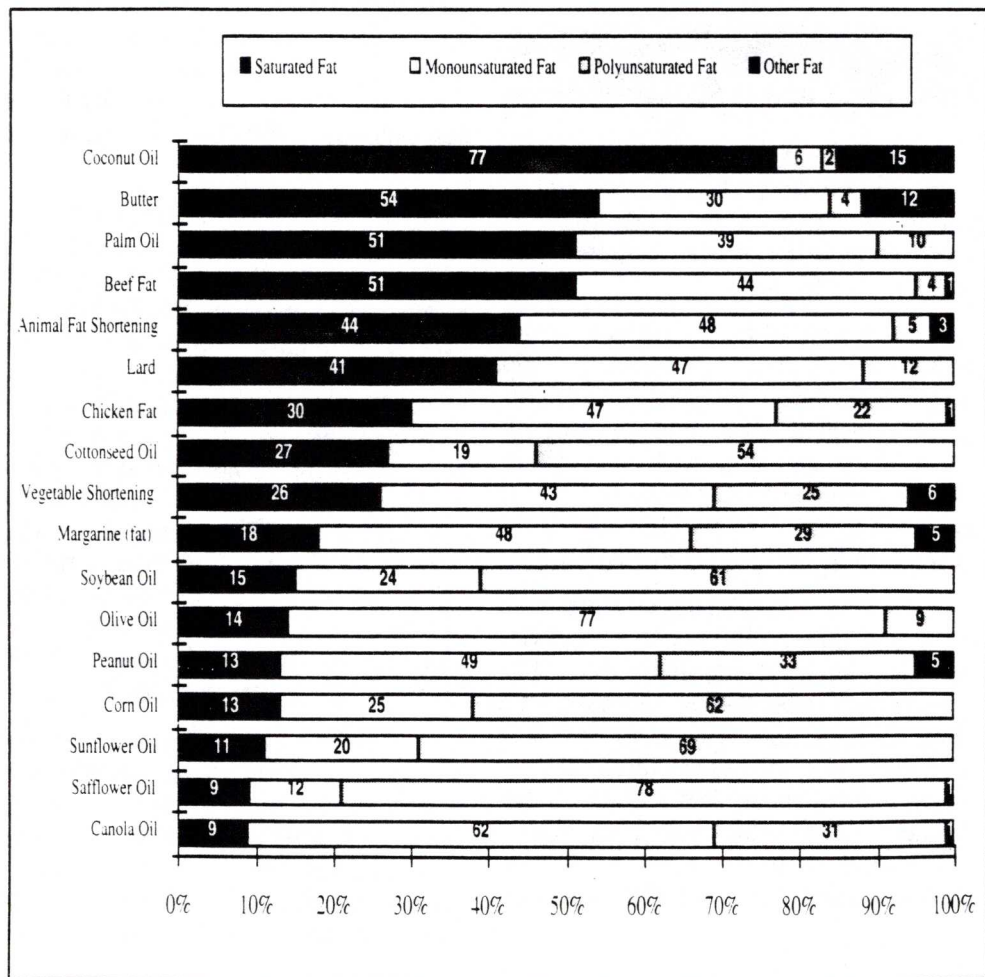
Bateson, B.R. What's so great about olives *Sunset*, October pp. 98-103, 1992

## SATURATED FATS

Recently I read a short article in a newspaper entitled "Saturated Fat: A Quandary." It now appears that scientists have decided that hydrogenated oils in margarine are as bad as saturated fats for heart disease. We have believed for years that hydrogenated fats (margarine) were not good for patients with Multiple Sclerosis. Measurements of blood flow in the brains of hamsters after butter fat, safflower oil, and hydrogenated safflower oil meals showed that the circulation was not significantly altered from normal by safflower oil, but hydrogenated safflower oil and butter fat meals both caused marked reductions in the cerebral circulation. These experiments were done in the 1960's. As a result we felt confident that hydrogenation of oils to make margarine changed not only the appearance of the oil, but rendered the oil harmful to patients with vascular disease as well as those with MS. Subsequent studies of the brain circulation in MS patients revealed marked reductions, compared with circulation in normal subjects. Further reductions in circulation due to consumption of butter or hydrogenated unsaturated fatty acids in vegetable oils would seem to be an additional reason for avoiding margarine by MS patients.

Partially hydrogenated vegetable oils are used to produce margarine and commercially manufactured cookies, crackers, pies, imitation cheese, etc. These foods can create "transfatty acids." Those acids have now been shown to increase the risk of heart disease by raising cholesterol levels in the body.

A fatty acid consists of a chain of a number of carbon atoms, but the most common chains vary from 4 carbons (butyric acid in butter) up to 24 carbons (found in fish oils). A short and long chained saturated fatty acid are shown in figure A. The short chain fatty acid contains 4 carbons and the long 18 carbon atoms. Each carbon is saturated with as many hydrogen atoms as it can hold. Such a saturated acid is straight (without bonding at any point) and metabolically reacts slowly. By inserting 1 or more double bonds in this straight chain one creates a mono or poly unsaturated acid such as shown in figures B, C, D.





These acids are bent, and they are very active metabolically. The poly unsaturated fatty acids (linoleic and linolenic) are also essential for good nutrition in the same way that vitamins are essential.

In normal unsaturated fatty acids, single hydrogen atoms at the point of unsaturation are on the same side of the molecule and cause the acid to bend as shown in figures B, C, D, E. However, if hydrogenated to make margarine, the hydrogen atoms become attached on opposite sides of the chain, and are considered to be in the trans position (F). The bend in the acid is then absent, leaving the chain straight, and toxic as well as saturated.

The unsaturated fatty acids are found in vegetable oils and fish oils. Saturated fatty acids are found in animal fats and palm and coconut oils. The saturated fats are limited in our diet for MS to 10-15 grams daily. The unsaturated fats to no less than 20 grams daily.

In most recent issue of the "Lancet" there was included a study of the effects of trans fatty acids in the dietary intakes of 85,090 women. The study demonstrated a direct correlation (relationship) between the consumption of "trans" fatty acids and coronary artery disease and death.

## RESEARCH FUNDING

To remind you of our increasing need for research funding, we are inserting this form to be completed when donating money for research.  
Thank you.

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Portland, OR 97201

## OFFICE TALK

### MAIL IN REQUESTS

We are asking that routine requests, such as prescription refills, letters for physical therapy, taxes, work releases, lab results, etc., be requested through the mail. Enclose a self-addressed stamped

envelope for return of your request. This will ensure that we have your correct address and will help our situation with our busy telephone. Emergencies or prescriptions for urinary or other infections that are non-routine will, of course, be taken care of by telephone. If we are successful with implementing this request through the mail plan, we will be better able to take care of emergencies. Thank you for your help in this matter.

### COD LIVER OIL

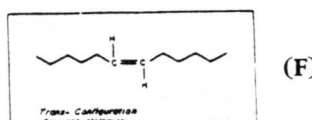
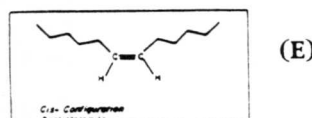
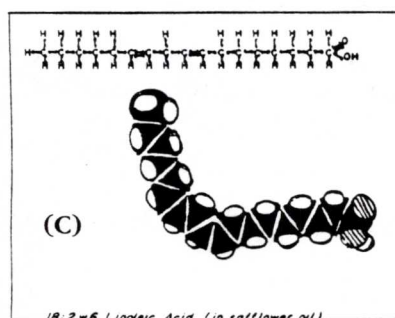
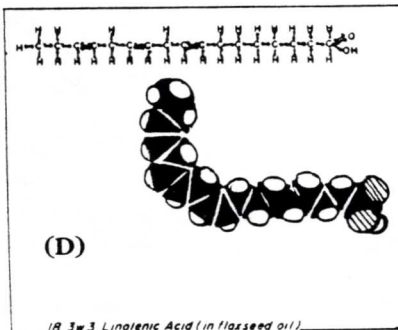
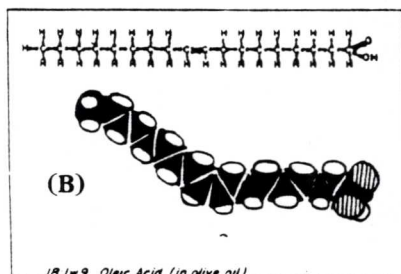
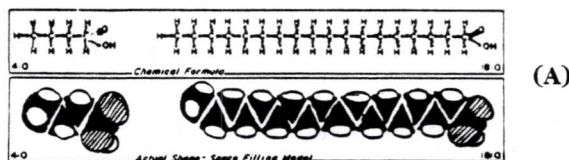
The cost for mailing cod liver oil is \$18.50. Please request this by mail with your check made out to OHSU Foundation, Swank MS Research. Picked up in the office the cost is \$16.50.

### NEW STAFF ADDITION

A new voice, Dorothy's, will greet you on the telephone. We are pleased to introduce her to you.

### DR. SWANK OUT OF TOWN

Dr. Swank will be in Europe the last two weeks of April, but the office will be open during normal hours.



750

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## CHEF'S CORNER

### ELVA'S ITALIAN CHICKEN

Boneless breast of chicken  
Mushrooms  
1 whole onion  
2 cloves minced garlic  
Whole stewed tomatoes  
Oregano  
Basil  
Pasta of your choice

Cut boneless chicken breasts into chunks. Brown lightly in olive oil, set aside. Saute sliced mushrooms until brown, set aside. Slice a whole onion into rings, don't brown but cook onion until soft, add minced garlic, place chicken and mushrooms back into the pan. Add whole stewed tomatoes. Season with oregano and basil to taste. Cover and simmer until chicken is cooked well. Uncover and simmer until sauce is slightly thick. Serve over Linguine or any other pasta.

### SPRING PASTA SALAD

Pasta of your choice  
2-3 Tablespoons Italian dressing  
1 cup mayonnaise  
1/2 tsp. Dijon mustard  
3 to 4 cloves garlic  
1 tsp. dill weed  
1/2 tsp oregano  
1/2 tsp basil  
2 Tablespoons parsley  
Salt & pepper to taste  
Fresh vegetables

Cook mixed sizes of pasta - El-Dente.

Mix pasta with Italian dressing. Combine mayonnaise, dijon mustard, garlic, dill weed, oregano, basil, parsley, salt & pepper to taste.

Add any fresh vegetables to your liking.

Salad is better if refrigerated for an hour or so before eating.



# SWANK MULTIPLE SCLEROSIS NEWSLETTER



AUGUST 1993

From the office of Roy L. Swank M.D., Ph.D.  
Editor: Barbara Brewer Dugan

EDITION #51

## THE EFFECTS OF SMOKING

Many MS patients have inquired about the possible health effects of smoking. We know of no published literature on this subject, nor can we state that smoking is harmful specifically to MS except as we will note below. The risks to one's general health due to cigarette smoking have been well documented in recent years and are briefly stated here.

The nicotine in cigarette smoke causes the release of epinephrine and norepinephrine into the blood stream. As a result there is an increase in heart rate, peripheral vasoconstriction, and consequently, elevation of the blood pressure. These changes increase resistance to, and reduce blood flow. The heart must therefore work harder and will require more oxygen. Hemoglobin, which is responsible for transporting oxygen in the blood is also altered so that it carries less oxygen. Finally the tissues do not receive an adequate supply of oxygen. Carbon monoxide, a by-product of cigarette smoking, also reduces the oxygen carrying ability of hemoglobin which further complicates the problem. The increased oxygen demand and reduced supply place a burden on all the tissues.

Several years ago, Dr. Michael Daley, while working with us,

became interested in the effects of smoking on MS. He found that both balance and flicker fusion significantly worsened for about 1 hour after smoking, then returned to their former values.

The harmful effects of cigarette smoking on general health are well known and include cancer and degeneration in the lungs, heart attacks, and gastrointestinal distress. However, the metabolic effect of smoking does help one keep from gaining weight. When smoking is discontinued many patients immediately gain weight and some become dangerously obese. Smokers should clearly understand that discontinuing the habit requires a high order of discipline if one is to escape from the pitfall of obesity, which by itself can be harmful to general health and to the ability to ambulate.

## JOINT AND MUSCLE PAIN IN MULTIPLE SCLEROSIS

It has been said that there is no pain with multiple sclerosis. We see this quite differently. We have described the severe pain of trigeminal neuralgia and of optic neuritis in previous newsletters. In this issue we would like to discuss the most frequent pain experienced by ambulatory patients.

Muscle and joint pains are frequently complained of by multiple sclerosis patients. They occur early in the disease more often than later, and may be forerunners of things to come. They involve the weight bearing joints and muscles, feet, ankles, knees and hips. Less often the upper extremities, fingers, wrists, elbows, shoulder joints, and connecting muscles are involved. Patients may also experience low back and cervical spine pain, but the causes may be different from the pains in the extremities just noted.

In general, patients who are on their feet much of the time suffer pains in the weight bearing joints. Gaining weight aggravates these pains, and obesity is accompanied by severe aggravation of the pains. The pains are relieved by sitting but most effectively by lying down. The upper extremity pains are related to the use of the arms or fingers. There again, relief is gained by reducing or stopping the movements.

Pain may be brought on or increased by the heat of a fever, hot weather, or by chilling. Comfort is greatest within a narrow range of ambient temperatures of about 65° F - 75° F in the U.S.A. and Canada, and Western Europe and England.

**TREATMENT:** If the pain is a result of being on your feet for long periods as stated before,



relief is gained by rest breaks during the working shift. If unable to lie down, reclining in a chair with legs elevated will help. During the Winter months, long underwear fitted close to the skin reduces pain. Heating the local painful areas is often helpful. Over the counter analgesics may reduce the pain. In more severe cases and when pain is disrupting sleep, relief can only be obtained by a mild sedative or pain medication. Intensive exercise does not relieve the pain and can intensify it. Mild exercise is advised, but avoid increasing the pain. It is unusual for pain to be both severe and constant and require constant treatment. Adequate rest breaks and an effort to not overdo will usually provide some relief and prevents exacerbating other MS symptoms. Sometimes local mild heat application gives relief.

## STRESS - WHAT HAPPENS AND WHY

Decision making is probably the most frequent source of stress to most people. The stress can be minimal, for example: entertaining guests or planning a vacation. The intensity of stress increases when deciding such things as whether to alter a present home or move to a new home or neighborhood, particularly if financial resources are limited. Finally, such decisions as to divorce or separate from your mate can be extremely stressful.

There is also a basic anxiety (free floating anxiety) which we all carry, and often excessively in MS patients. This can be very important since it is the founda-

tion upon which stress grows, and influences how one responds to stress. Some people seem to be unperturbed by happening about and to them. Others, and in particular, MS patients, are very sensitive to what is going on to or around them.

Finally, decisions are arrived at easily and quickly by some, and by others are ("chewed over") worried over for days, weeks, and months before a decision, and often a difficult one, is made.

All of us contend with this series of weaknesses and strengths, and finally, issues are decided by what we can only classify as common sense. If we are sensible, we make the right decision quickly before it leads to disabling stress. Then the period of heightened anxiety gradually lessens, and the symptoms disappear. If we are unsensible, we remain unable to bring the stress under control and suffer the consequences which eventually leads to panic, to hyperventilation, or both.

Panic attacks are preceded by a gradual or rapid increase in nervous tension stemming from dire life problems not easily solved, such as a diagnosis of serious illness, recent separation or divorce from a mate, impending poverty, and other similar situations. As the tension increases, sleeplessness develops and clear thinking becomes difficult to impossible. Heart palpitations, chest pain or discomfort, abdominal stress with constipation or diarrhea, head pain, and a disappearing or ravenous appetite may become evident with either a gain or loss of weight. It is not uncommon for a feeling of helplessness to overwhelm the patient.

Hyperventilation can appear early or late, and because of its subtle onset the patient begins to think that a disease other than MS is somehow masked. This leads to a search for some other cause of the symptoms, and to added confusion and helplessness.

Hyperventilation usually is preceded by the patient feeling that the lungs are not receiving enough air. This feeling is satisfied by periodic deep breathing. This need for periodic deep breathing can continue for hours or days, and if not stopped, the deep breathing will increase in frequency until every breath is deeper than normal. At this point, hyperventilation is in command. If this control is not broken, palpitation, rapid heart action, a choking feeling, chest pains, and abdominal stress develop. Other symptoms related to physiological changes in the body soon develop leading to profuse sweating, faintness and dizziness, coldness and pallor of the face and extremities, urinary urgency, and a feeling of impending death.

The basic cause of these symptoms is nervous tension. The later symptoms related to hyperventilation are accompanied by a reduction of carbon dioxide in the blood, with a shift of the pH of the blood from slight alkalinity to slight acidity.

This change can usually be controlled by re-breathing into a paper bag, or by having the patient suppress his/her ventilation voluntarily, or by forcefully preventing hyperventilation by applying pressure to the chest.

Since the patient is exhausted by this time, sedation sufficient for sleep, and mild sedation while awake to suppress nervous-



## RESEARCH FUNDING

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ness are usually beneficial. As soon as the patient's breathing and symptoms have subsided, psychotherapy, as noted later, will assist the patient in uncovering the basic cause of the panic attack, find the stressors in the patient's life, and help the patient develop effective coping strategies.

During stress, and particularly during severe stress attacks, the neurological symptoms which are still present, or which had seemed to recover, reappear. If the stress is short-lived they will recover and remain dormant again. However, if the stress attack is prolonged the neurological symptoms, and often new ones may remain as permanent fixture of the disease.

The individual experiencing hyperventilation and other symptoms is often puzzled by the origin and nature of these symptoms. Rather than correlate the increased levels of tension with specific stressors or fears, the individual is likely to regard the symptoms as an expression of some form of an internal process such as some undiagnosed dis-

ease, over which he/she has no control.

At some point in the progression of the attack, the symptoms often intensify beyond the person's ability to either ignore them or to function effectively. The individual experiences intense apprehensiveness and terror, and a sense that something dreadful is about to happen. Panic attacks can come on suddenly, often lasting anywhere from a few seconds to an hour or more. These attacks mount to a very high intensity level and then subside, seemingly all in the absence of any obvious cause.

The symptoms which vary from one person to another are generally emotionally based, and triggered by some tension producing or stress related situations. After the acute attack has moderated, long-term therapy can be very helpful. Psychotherapy is suggested to assist the individual in examining possible underlying causes for the attacks, to examine possible stressors in the client's life, and to assist the client in developing more effective coping strategies. In therapy,

the therapist can assist the client in neutralizing some of their intense fears and anxieties, teach the patient deep muscle relaxation techniques and thus gain mastery over an overwhelming sense of weakness, and the uncontrolled physiological state, helping patients realize that they can effect positive changes in their environment, and help them to establish a support system. In addition, medication may be indicated in the form of a mild tranquilizer, which often promotes a calm and relaxed state of mind.

## CLINIC FUTURE

A Letter concerning the future of the Clinic will be forthcoming. As this affects your future health care, consider your response carefully.

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## CHEF'S CORNER

### PAULA'S LASAGNA

Saute 1/2 cup copped onion with one cooked chopped chicken breast. Stir into 1 cup Knudsen's non-fat cottage cheese and 1/2 small package thawed chopped spinach. Add 3-4 pinches garlic salt. Set aside. Cook 1/2 to 2/3 package lasagna noodles; drain. Layer one-half of noodles in 8"x8"x2" square pan. Pour 2/3 cup Prego spaghetti sauce with mushrooms over noodles. Add chicken/cottage cheese mixture. Layer remaining noodles & top with 2/3 cup Prego sauce. Top with grated low or non-fat cheese. Bake 45 minutes in 350 F. oven.

### RED CHICKEN ENCHILADAS

1 Can Rosarita Enchilada Sauce (mild)  
6-8 thin Corn Tortillas  
1/2 medium onion, chopped  
2 green onions, chopped  
1 cup large chicken breast, chopped (Cook first, skinless in 1 quart of water)  
1 4oz. can Ortega chopped chiles  
3/4 cup non-fat cheese

Preheat oven to 325F. Line up chicken, onions, chiles, cheese next to 8"x8"x2" baking dish. Heat 2 Tbsp. safflower oil in small saute pan until warm. For each enchilada, warm in saute pan for 30 to 60 seconds or until pliable - do not over warm. Remove and fill with 3 Tbsp. each chicken, onion, chile and cheese. Roll and place seam side down baking dish. Repeat with remaining tortillas.

Pour enchilada sauce over tortillas and top with remaining filling/cheese. Bake 15 minutes. Serve with diced tomatoes and shredded cheese.



# SWANK MULTIPLE SCLEROSIS NEWSLETTER



OCTOBER 1993

From the office of Roy L. Swank M.D., Ph.D.  
Editor: Barbara Brewer Dugan

SPECIAL  
EDITION #52

## BETASERON EXPERIMENT COMMENTS

In recent years all Americans, and especially those approaching maturity, have faced the problem of how to prepare for life's work. The options are numerous, making the choice difficult

A similar situation faces our MS patients today. There are now several alternative therapies, each promising benefit. The most recent and widely publicized is Beta Interferon (Betaseron).

Newspapers, and abstracts published in the journal, *Neurology*, suggested that in a preliminary 2 to 3 year trial, there was a slight reduction in frequency of exacerbations of the disease, without noticeable improvement in the physical state of the patient. It must be noted that a 3 year experience is very short for a disease with an average duration of 25 years or more. We will continue to watch continuation of this experiment with interest.

As for our clinic, we are registering patients who qualify and are interested in Betaseron, and who presently are following

low fat diet. We will cooperate and administer the drug as advised by the manufacture. If Betaseron is beneficial as suggested, it will be an advance in treatment of MS. If not, it can be discontinued to allow space for other experimental therapies.

The Swank low fat diet has for the past 40 years reduced the exacerbation rate an average of 70% the first year, and thereafter, by an additional rate of 5% per year. After 5 years on diet, instead of 1 exacerbation per year, a reduction to 1 exacerbation every 20 years, a total reduction of 95%, except for those few patients whose illness will exacerbate following trauma, surgery, childbirth, and overheating. In addition, the low fat diet reduces the rate of deterioration, and in early cases, this benefit is remarkable. Those cases placed on diet early have an approximately 95% chance of living an active life, free from significant disability for in excess of 34 years.

## INTERNATIONAL MEETING FOR MULTIPLE SCLEROSIS HELD

A recent international meeting for multiple sclerosis was held on September 10, 1993 in Victoria, B.C. At this meeting Roy Garvin, presented an abstract of our research on MS plasma. The following is a brief description of

this work.

Preliminary studies (1-2) in Portland revealed an unusual protein component in samples of plasma from all patients with multiple sclerosis whether recently fed or fasted. This or a similar protein was seen in normal subjects after feeding but not after fasting. This protein had an approximate molecular weight of 65 KD (65,000).

Continuation of the study was carried out in London, England to confirm the presence of this same protein in MS patients in a different population, and secondly, to investigate the function and identity of this protein and its relation to MS.

Two proteins with similar molecular weight are known (3). These proteins have fat (lipid) transfer ability (The ability to transfer or change a fat so that it can be metabolized or utilized by the body). To demonstrate that our unusual 65 KD protein from plasma of MS patients truly differed from normal, it was necessary to demonstrate that its transfer ability differed from normal. This was of particular interest in view of the reported favorable influence of low fat dietary treatment on MS. The results of these studies were as follows:

(See Inside)



(1) Each plasma sample from 39 fasting MS patients revealed the unusual 65 KD protein component. This same protein was not detected in any of the plasma samples from 15 fasting control subjects.

(2) Transfer assays (measurements) showed that there was a marked increase (mean + 136%; range = 129-156%) in ability to transfer phospholipid (an important complex fat consisting of 1 molecule of glycerol plus 2 molecules of fatty acids, and a phosphate group).

(3) Fifty four plasma samples were then analyzed blind. The source and diagnosis of each was not known. It was possible to identify correctly the 39 samples from MS patients, 15 normal controls and samples from other diseases with an accuracy of 97.4% based upon a better than 20 percent increase in phospholipid transfer ability by the unusual protein component in plasma from MS patients.

It seems possible that the ability of plasma from MS patients to transfer phospholipid to high density lipids (HDL) in amounts 20 percent or more greater than by normal plasma could provide the basis for development of a specific method for diagnosis of MS at any stage of the disease. It could then be diagnosed before disability developed, and possible to start treatment early and thereby stop progress of the disease.

When a patient benefits from an infusion of normal plasma it is conceivable that normal transfer of lipids has been temporarily re-established by the infusion of normal lipid transfer protein.

## CLINIC FUTURE UPDATE

In our last newsletter, we stated that an important announcement concerning the future of the clinic would be forthcoming.

- I. We are now planning to move, not close, the clinic by no later than August, 1994. We are looking for a suitable location, both for the clinic and for access to the clinic by patients. This move will be managed agreeably and without interruption of our obligation to patients. At present we do not know the precise date of the move, but as soon as we know you will be notified. In the meantime, we will continue to serve you at our present location.
- II. Many of you have inquired as to your future care. Once we relocate we are hoping to expand and find a replacement for me. At the present time we are booked for more than one year in advance for new patients, and tightly booked for return patients. We, therefore, share your concerns for the future.
- III. More than ever before we will need your support to make this move possible, and to continue the activities of the clinic without interruption. It is not possible to make a move of this magnitude without secure and adequate funding. We are relying on you to help us plan and continue our clinic operations. Barbara will be a qualified RN by the time of the move. With her full-time help, the activities of the relocated Swank MS Clinic will be vigorously and optimistically continued.



## CLINIC FUNDING

*To remind you of our increasing need for clinic support, we are inserting this form to accompany your donation. Thank you.*

CONTRIBUTOR'S NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_  
\_\_\_\_\_

AMOUNT OF DONATION: \_\_\_\_\_

Make Checks Payable to: OHSU Foundation  
Swank MS Research

DONATIONS CAN BE MAILED TO THE FOLLOWING ADDRESSES:

Roy L. Swank, M.D., Ph.D.  
Swank MS Clinic - MP140  
3131 SW Sam Jackson Park Road  
Portland, OR 97201

OHSU Foundation  
3131 SW Sam Jackson Park Road  
Portland, OR 97201

## CHEF'S CORNER

### SPICED PUMPKIN ROLL

Non-Stick cooking spray or salad oil  
3/4 cup all-purpose flour  
2 tsp. ground cinnamon  
1tsp. each baking powder and ground ginger  
1/2 tsp. each ground nutmeg and salt  
1 egg and 4 egg whites  
1 cup granulated sugar  
2/3 cup canned solid pack pumpkin  
1/3 cup powdered sugar  
1 quart vanilla frozen  
(nonfat yogurt, slightly softened)  
shredded orange peel (optional)

Lightly coat a 10 by 15 inch rimmed baking pan with cooking spray; line with wax paper and spray again. Set aside.

In a small bowl, stir together flour, cinnamon, baking powder, ginger, nutmeg and salt; Set aside.

In a large bowl, beat eggs with an electric mixer on high until thickened slightly (whole eggs will appear lemon colored). Gradually add granulated sugar and continue beating, scraping bowl often, until creamy and pale in color. With mixer on low, beat in pumpkin and flour mixture. Pour batter into pan, spreading evenly.

Bake in a 375 degree oven until top springs back when lightly pressed (about 15 minutes). Immediately invert onto a dish towel sprinkled with 3 tablespoons of powdered sugar. Peel off wax paper and, starting with a long side, immediately roll cake and towel into a cylinder. Let cool completely. When cooled, unroll cake slowly, remove towel and spread cake with frozen yogurt; reroll. Wrap in plastic wrap and freeze until firm (about 3 hours).

To serve, unwrap cake and serve on platter or cut slices; let stand at room temperature for 5-10 minutes. Sprinkle remaining powdered sugar on top and, if desired, garnish each slice with some orange peel. Makes about 14 servings (if cut into 1 inch slices).

We get frozen yogurt at TCBY because it is softer straight from their machine. I have used store bought yogurt, but it needs softened slightly before spreading. The shredded orange peel tastes great sprinkled on top of a slice of cake. This cake made with 1 whole egg is essentially nonfat.

- Beth Walsh



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# Clinic Future Update Inside.