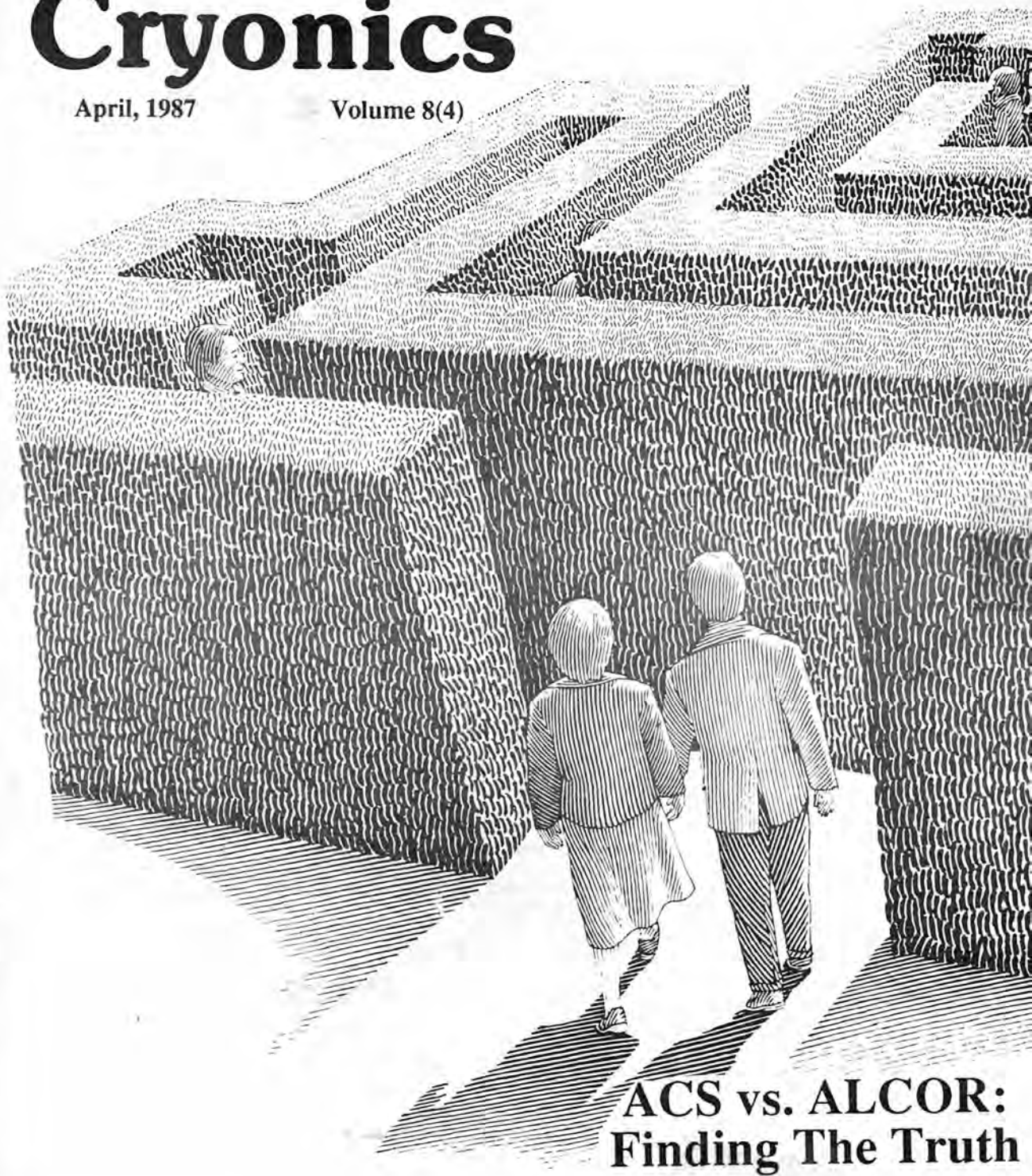


# Cryonics

April, 1987

Volume 8(4)



**ACS vs. ALCOR:  
Finding The Truth**

**Volume 8(4)      April, 1987      Issue #81**

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## EDITORIAL MATTERS

The end of February and the beginning of March have been rather chaotic and traumatic months for us here at ALCOR. Progress with the new facility has been very rapid and very gratifying, but there have been some less desirable developments as well. We would like to point out that the special bulletin that follows is, necessarily, a mixture of news reporting and editorial opinion. Given what has happened, we make no apologies for this.

We do apologize for the rather monotonous content of this issue. We wish it were more diverse, we wish even more that we didn't have to cover most of the issues which we are dealing with this month.



## LIFE EXTENSION FOUNDATION ASSAULTED BY FDA

At 10:00 AM on Thursday, February 26th, agents from the Food and Drug Administration, the Drug Enforcement Agency, and the Hollywood, Florida police entered both facilities of the Life Extension Foundation (LEF) and Life Extension Products (LEP) (in Hollywood and Dania, Florida) at gunpoint. At LEF headquarters in Dania, the raiders entered the facility by breaking in the front door with an axe an hour before the facility opened. Employees and volunteers were rounded up at gunpoint and subjected to search and in many instances confiscation of their personal effects (address books, personal medications, and so on).

In the hours following the start of the raid, two tractor-trailer loads of products and literature, worth over \$50,000, were removed from the facilities. Virtually every file, all the magnetic media, and almost every scrap of paper in the building was removed by the FDA. All told, just under half of the inventory of Life Extension Products was confiscated.

And what, you may ask, was the target of this raid? Copious quantities of heroin or hashish? Dangerous and exotic drugs? A bookmaking operation? Think

again. The target: vitamins and nutrients. The FDA carted off truckloads of amino acids, Co-enzyme Q-10, choline, and B-vitamins. In a city where any fool with half a mind and \$100 in his pocket can get into a car and drive a few miles to purchase heroin or cocaine on an open street corner, the FDA and DEA have nothing better to do than to raid the Life Extension Foundation.

"But this a free country!", you may protest! "People have rights!" Well, think again. We want you to understand exactly what happened in Florida and why it happened. We also want you to know that it was not an isolated incident or part of some local overexuberancy on the part of a drug-sensitized officialdom. It was anything but that.

The purpose of the raid was to gather evidence for the FDA (and yes, though God knows what for, the DEA) that LEF was selling "drugs" and nutrients to fight aging and then to stop them from doing such a terrible thing! LEF is not alone in this dilemma. The FDA recently attacked General Nutrition Centers (GNC) for selling **Evening Primrose Oil** and even returned very serious indictments against its officers and directors. Also, as you may have noticed, there are no more **Stresstabs** in the pharmacies and grocery stores. Lederle, the pharmaceutical giant who marketed them, was ordered to take them off the shelves and relabel or destroy existing product. Why? Because Lederle was making medical and therapeutic claims about their vitamins (by calling them **Stresstabs**) without FDA approval. Never mind that there is an extensive literature documenting loss of vitamins during stress and an increased requirement for



vitamins during stress. Never mind that government study after government study has documented the inadequacies of the average American diet in providing an adequate vitamin intake. Never mind that numerous government studies have documented excessive excretion and decreased absorption of vitamins in smokers and alcohol abusers....Never mind any of this. The fact remains that Lederle did not submit a tractor-trailer load of documenting protocols and paperwork at a cost of well over \$1 million to satisfy the FDA's requirement for proof about something any ass who can read would know!

## Two raids yield truckload of drugs

By Dana Banker  
Sun-Tattler staff

Nearly a semi-trailer truckload of unapproved drugs was confiscated in simultaneous raids at a Hollywood store and a Dania warehouse Thursday, federal officials said.

Food and Drug Administration officials, escorted by U.S. Marshal's deputies and local police had to break down a door to search for the drugs.

An FDA official in Orlando said the agency never approved the drugs for the uses they were being marketed for, including treatment of AIDS, herpes, arthritis, bursi<sup>1</sup> and cardiovascular disorders.

After repeated knock<sup>2</sup> in team 1<sup>3</sup> tatter 2<sup>4</sup> stor

Ruddel, Ruddel, who police said had not ventured outside for years, was arrested by a Hollywood police special weapons and tactics team Aug. 28, 1986. Police said he was operating a "crack" cocaine<sup>5</sup> the floor. His trial<sup>6</sup> for M<sup>7</sup>

Some years ago Riker pharmaceuticals stopped manufacturing

and marketing the prescription drug **Deaner** (which is also used as a "life extension" drug) not because it didn't work, but because the FDA wanted them to provide updated proof of effectiveness which would have cost a prohibitive amount of money. One of the agents seized by the FDA in the raid on LEF was **DMAE** (the active ingredient in Riker's **Deaner**).

The newspaper headlines from Florida describing the raid were instructive: "Two Raids Yield Truckloads of Drugs" and "FDA Probes Sale of Drugs to Fight Aging"... "We're concerned about people getting sucked into using health fraud products," declared FDA spokesman Ed Atkins. In fact, a major factor in precipitating the raid appears to have been the efforts of a mudslinging New York journalist named Dave Browde who had been goading the FDA into taking action with a series of vicious (and, in our opinion, highly inaccurate) "exposés" about LEF.

Well, we have news for you: If we wait for the FDA to approve drugs against aging we'll all be dead and so will our children's children. God forbid that the answer to aging (or any major therapeutic advance in its management) turns out to be something simple, common, and unpatentable. There isn't a pharmaceutical company in the world that would undertake the millions of dollars worth of **paperwork** and studies required to win FDA approval for it (and we are NOT exaggerating, either)! In fact, even if it were patentable, few companies would be willing to take on the burden of introducing a product to help in "aging", which most medical professionals and bureaucrats don't even recognize as a disease!

The authority these people have is astounding. They entered the LEF buildings, confiscated tens of thousands of dollars worth of products, took tons of books (Pearson and Shaw's **Life Extension**, Drexler's **Engines of Creation**, and virtually every other book or pamphlet LEF has), took employee's personal photos, prescription medications and vitamins, address books, and personal papers, and they didn't even make an arrest. People were herded around like cattle, threatened at gunpoint, and generally harassed all in the name of "an investigation." No indictments have been issued yet and no arrests were made.

At one point, employees were lined up for photographing and, after several people had been photographed, one employee ventured to ask if "she had to have her picture taken." Hesitantly the officers told her "No."

"Why didn't you tell us that at the start?" she asked.

The officer nastily replied, "I said, 'If you don't mind get in line so we can take your picture!'"

As this employee pointed out, "After being ordered around at the point of a gun, that's not exactly what I call spelling out that having your picture taken is optional!" Because no one was arrested, they were not read their rights, and yet were questioned extensively without counsel present.

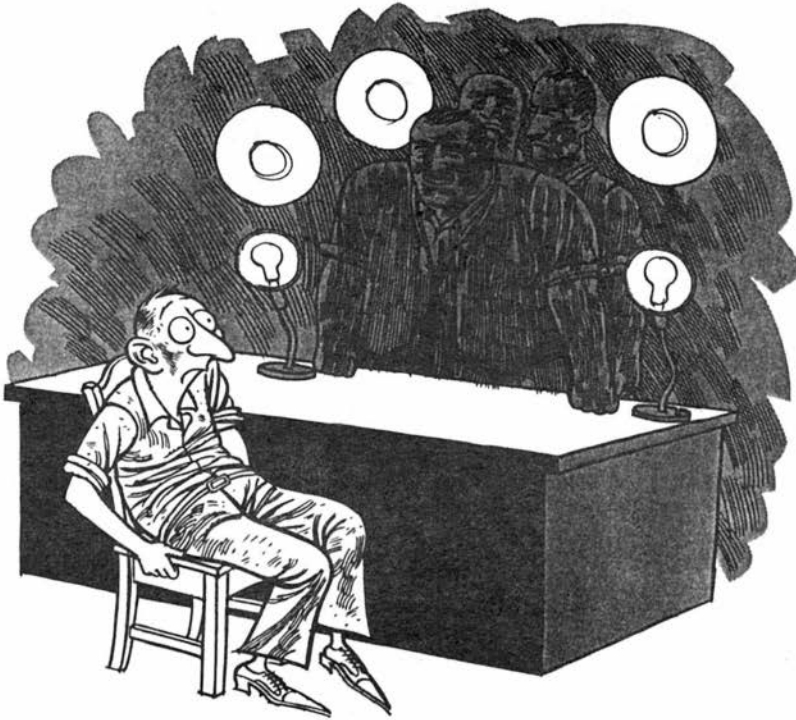
## FDA probes sale of drugs to fight aging

By RICK BOWERS  
Herald Staff Writer

Following a raid that netted a truckload of drugs not approved for sale in the U.S., federal agents Friday continued to probe a group that claims its products can help you live to 120.

The Food and Drug Administration investigation of Life Extension Products at the Anti-Aging News building on Hollywood Boulevard has already yielded several crates of unapproved drugs used to treat afflictions ranging from herpes and AIDS to arthritis and heart disorders.

Agents seized  
crates and  
bottles  
of the  
drugs.



At no point were employees told they did not have to answer questions or do anything beyond give their names and identification. Needless to say, entering LEP and LEF with axes and guns in the absence of any resistance and in the presence of full cooperation was, to put it mildly, overkill.

Why was this done and why was it done in the way that it was? The answers are simple. First of all, and most basically, it was done for your own good. Neither you nor I are qualified to know what is good or bad for us. We are not experts and we are not capable of either going to experts or making a judgment on our own. Our **reason** and our own ability to **think** may be flawed and therefore we must be protected from ourselves. At all costs we must be protected from ourselves. Why it may even be necessary to **kill us** in order to protect us from ourselves.

Mind you, we're being protected from the dangers of our own good judgment (or bad judgment for that matter) by the same incompetents who've so recently brought us exploding spacecraft, a multibillion dollar tobacco industry subsidy coupled with a multibillion dollar stop-smoking campaign, yet another round of aid to our enlightened friends in Iran and a multibillion dollar crash program to cure cancer which has "resulted" in an overall **increase** in deaths from cancer!

No thank you, we'd rather make our own mistakes and take our chances with the evidence — even if it doesn't meet FDA requirements.

So there you have it. Hundreds of thousands of dollars worth of damage to LEF and LEP. Many ten of thousands of dollars in government money squandered on the 4 years of investigation which led up to it, the raid itself and, if it comes, the prosecution and trial. And what does that mean? Well, for those of you who may not have known it, LEF was providing almost all the seed money for innovative gerontological work. Almost every innovative and exciting research project out there was funded not by the National Institute on Aging (NIA) or the National Institutes of Health (NIH) (bless their bureaucratic hearts) but by LEF. Also there is the little matter of ALCOR, cryonics research, and vitrification studies. LEF has provided money to the American Red Cross to fund Dr. Greg Fahy's vitrification studies and it was LEF who has underwritten much of ALCOR's research work — to the tune of about \$50,000!

All of this has been brought to a halt. All of it. LEF is now using the Project 2000 fund for legal defense.

And what other reason do you suppose the FDA used such blatantly inappropriate tactics for? Why, for the same reason the Securities and Exchange Commission has been hauling off securities and commodities brokers and arbitrageurs in handcuffs and assaulting brokerage houses at gunpoint: to scare the hell out of everybody else. To show 'em whose boss. You don't handcuff a man who makes millions of dollars a year and works for a leading brokerage house except to humiliate him and terrify his colleagues. The intent with LEF, with USA Sciences (a vitamin firm which was shut down by the FDA and the Texas attorney general a few months ago) and others is to make examples out of them.

Perhaps you feel as we do, and would like to call the FDA to thank them for their thoughtfulness on our behalf. Why, you might even try calling them collect, after all, they are our servants. For your convenience we've provided both the FDA's Miami office number and their Washington, D.C. number. We suggest you give them a ring and tell them how grateful you are that they are looking after you. In fact, you might want to give them SEVERAL rings, after all, long distance rates have never been lower...

FDA Miami: (305) 526-1544  
 FDA Washington: (301) 443-1544

#### **LIFE EXTENSION PRODUCTS STILL IN BUSINESS**

There is one "bright spot" in all of this and that is that the FDA did not close down LEP or LEF. Both are still in business — although with a considerably truncated product line. If you need a back issue of LIFE EXTENSION REPORT or a bottle of CoQ-10 you'll have to contact the FDA — they were all taken in the raid!

#### **WHAT THIS MEANS FOR CRYONICS**

Aside from the direct financial impact of the raid, all of this points up some lessons we'd better learn for cryonics. In the long



run (barring the development of perfected suspended animation) we aren't going to fare any better. Recently, Mike Darwin was on a radio program opposite a Dr. Wallace Sampson of the California Medical Association, who is also a Clinical Professor of Medicine at Stanford University. Dr. Sampson stated publicly that he felt cryonics constituted health fraud and, in a conversation with Mike off the air, pledged to "stamp out cryonics and have it shut down and put out of business for the cruel fraud that it is." (We'll be bringing you a transcript of this interview in a future issue of CRYONICS.) Keep in mind that if you are charged with fraud and you have used the mail or the phone to solicit business then the government can (and more and more often does) use the new RICO laws against you which allows seizure of bank accounts, homes, and other assets, essentially stripping you bare of resources and leaving you unable to defend yourself.

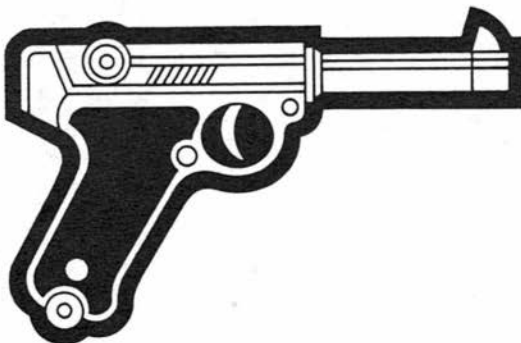
There are a number of logistic and practical lessons to be learned. The first is, good legal help can be nearly worthless when you get raided in this way — at least if you're a cryonics organization. Once they've stormed in with a search warrant, pulled the patients out of their dewars and carted them off in body bags and confiscated all your records, **then** you can have the lawyers go to work — and a fat lot of good it will do you too.

The awful thing is that you don't even know when an investigation like this is going on. Judging from the evidence at hand it looks as though the FDA had been working to set up the LEF raid for about 4 years. Cryonics could be in the same boat — and chances are we'd never know it until the district attorney, the coroner, and police descended on us.

Our anxiety is not diminished any by our awareness that the vitamin/nutrient/life extension people are getting this kind of treatment now — and that's with plenty of evidence, literally thousands of studies (some of them which even the most conservative scientists agree have merit) to back them up! Where will cryonics stand when push comes to shove and we become an "issue" and are the victim of some aspiring TV newscaster or "fraud" fighting public official? We have **no** experts (we don't even have a slightly dotty Nobelist like Linus Pauling) who are willing to testify for us. The professional cryobiologists with the ability to make a difference for cryonics are already too scared to offer support and there are no Nobelists or prestigious M.D.s standing in line ready to defend us. Nor do we have the economic clout that the alternative health advocates and others of a similar bent have.

Yes, the LEF raid has been a very valuable lesson indeed.

Now what do we do next?





# CANCELLATION OF LAKE TAHOE LIFE EXTENSION FESTIVAL ANNOUNCED

March 14, 1987

Concerning the Lake Tahoe Life Extension Festival:

Earlier this year, in consideration of the short period since the last Life Extension Festival at Lake Tahoe, we began inquiring of past speakers and panelists to determine if there was interest in holding a Festival as soon as Memorial Day of this year. Labor Day, 1987 was not a possibility, because of conflicts with the annual science fiction convention(s) held at that time.

We found that some of the prospective speakers felt it was too soon for another full set of research presentations, but that a semi-formal type of meeting would be welcome, one at which there would be moderators for a number of subjects of interest, with the meetings to be held outdoors in a natural setting. The concept looked interesting, perhaps a new way to enhance the feelings of common purpose which have characterized Lake Tahoe Festivals in the past. A number of invited moderators sent back forms we'd mailed out, indicating that we could count on them to attend and participate in the sessions we'd suggested. It looked as if a very interesting meeting was in the offing.

Then a problem raised its head. About a month ago we became aware of events transpiring which are the subject of other articles and letters in this issue of *Cryonics*, relating to competitive tactics and actions on the part of ACS directed towards Alcor. In the past, we had known that conflicts between these two organizations existed, but we thought it was better to have a meeting attended by both of these organizations, even though there might be sharp differences in opinion, than to forego a possibly productive interchange of information by way of formal presentations and informal discussions.

We have examined the letter by Mr. Zinn which is mentioned in the article **ACS vs. ALCOR** by Mr. Darwin, and we think this letter compares ACS and Alcor in a highly distorted way, distorted to such an extent it could lead the reader to conclusions wholly unwarranted by the facts. Distortions of a similar kind were instrumental in our severing ties with the Cryonics Society of California in the early 70's.

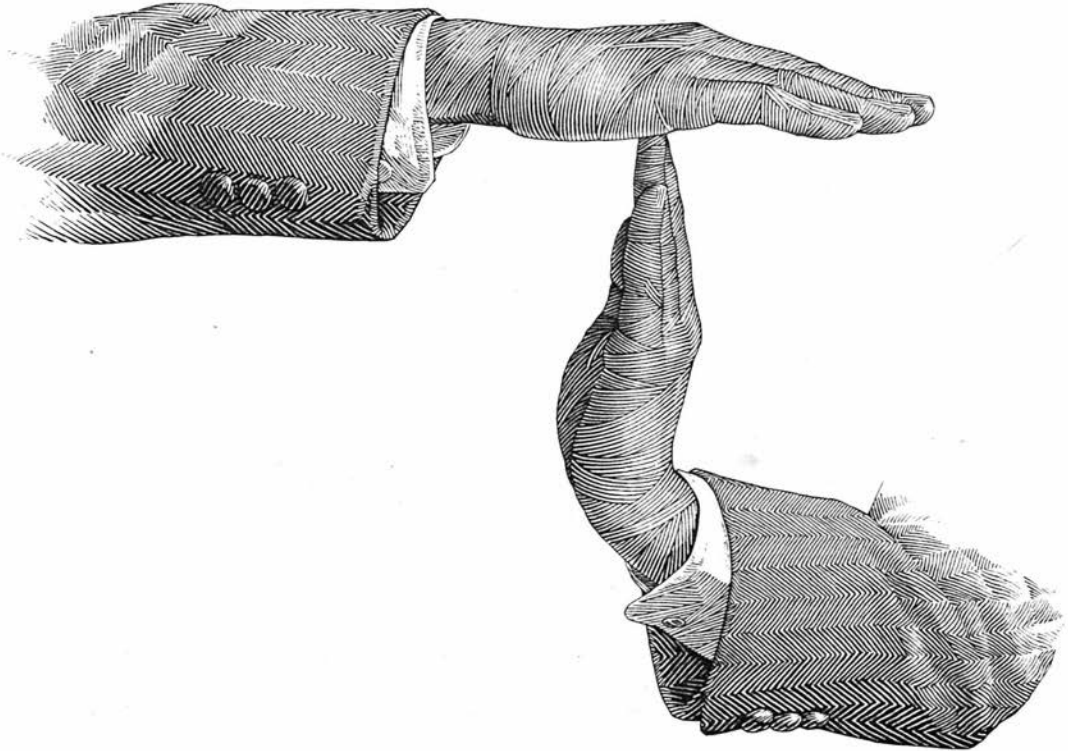
When we severed connections with CSC, perhaps we should have spoken out more forcefully concerning our reasons. Perhaps we should have engaged in an open battle with CSC's leaders, instead of taking a "live and let live" attitude. Perhaps we might have persuaded the other members of CSC to take actions which would ultimately have averted the Chatsworth Disaster. We will never know about that. All we know, at this point, is that we cannot quietly sit by and silently tolerate actions which remind us so vividly of the warning signals we had when we broke with CSC and formed Alcor.

We fully agree with and support the positions set forth in Mike Darwin's article. Our assessment is that the seriousness of these issues leaves us no choice but to cancel the Lake Tahoe Life Extension Festival for 1987. Then we must examine whether or not we should host such events in the future. The basic

pretext for a formal meeting among those with the common purpose of life extension is that the attendees would have at least a certain degree of good will toward one another. If this minimal level of good will vanishes, or if there are attacks by one organization on another which destroy such good will as does exist, then a pretext for the meeting ceases to be.

We are open to comments or suggestions concerning whether or not there should be Lake Tahoe Life Extension Festivals in future years, and whether these should be conducted on behalf of single organizations, or whether these meetings should be held on a completely "open" basis. We apologize for the disappointment that the cancellation of a 1987 Festival means for many of you who have no part in the organizational conflicts that are taking place. However, this issue affects us all. When things reach a state such as exists at present, "Festivals" are not a solution.

Fred & Linda Chamberlain



## OVER AND DONE WITH

We are fully moved in, up, and running! When we went to press last month we thought that the worst was over. Boy were we ever wrong! If we thought the stress was bad during the course of the first part of the move, we hadn't even begun to know what stress was. During the tail-end of the move — and its most critical part, transfer of the patients, word reached us that the FDA, DEA, and Hollywood, Florida police had raided the Life Extension Foundation facilities at gunpoint in Hollywood and Dania, Florida and seized tens of thousands of dollars of products and literature (including thousands of dollars worth of ALCOR literature).

Several days later, an exhausted ALCOR director fell asleep at the wheel of the Cryovita van during the tail end of the move, sending it to automobile heaven (luckily there were no injuries — seat belts in use — and the van was empty at the time). This necessitated the immediate purchase of a replacement vehicle — an unanticipated \$5,000 expense!

The move was an adventure in other ways as well. First of all, it was grueling. Day after day of 12-hour stretches of hard work necessitated by an end of the month deadline to be out of our old facility and the very urgent requirement that we bring up capability at the new facility with no more than a day or two of down time. On February 15, a crew led by Hugh Hixon and consisting of Allen Lopp, Steve Harris, Carlos Mondragon, Jerry Searcy, Mark Connaughton, Scott Greene did the impossible; they loaded up a 24 ft truck with heavy equipment (including a 2,000 pound electron microscope!) and then proceeded to break down the old Cryovita operating room and loft. Jerry Leaf was present in spirit, since when he designed the old OR in 1982, he deliberately made it so that it would be easy to tear down. This latter project required about 60 man-hours of effort and resulted in a minor casualty and another adventure.

Carlos Mondragon picked up a 1-1/2 inch long wooden splinter in his leg which, naturally, broke off flush immediately after entry. Fortunately, ALCOR has as one of its working members a physician who frequently works in emergency rooms, so, at 2:00 AM on the morning of February 16, the new ALCOR operating room got its first workout. As Carlos hopped onto the operating table for a little minor surgery, Mike Darwin encouragingly cackled: "Well, this is your first time on this table, but it probably won't be your last...."

Even the "minor" surgery turned into a bit more of an adventure than was anticipated. The coarse splinter was deeply buried in the subcutaneous tissue and required about 45 minutes of surgical time to locate and remove; plus about 4 stitches to close the wound. If we'd ever not appreciated it in the past, the importance of the superb medical/operating facilities of Cryovita and ALCOR were brought powerfully home to us. Mike Darwin's fanatical stocking of every medication under the sun also paid off, since he happened to have Xylocaine with epinephrine on hand which was used as the local anesthetic. So, the first surgery on a Suspension Member at ALCOR's new facility resulted in the patient getting up and walking away from the table! Not a bad start at that.

Other than these adventures, the move went fairly smoothly. We don't have any pictures to share with you since everyone, including our usual photographer Hugh Hixon, was far too busy to record things on film. Our other photographer, Luigi Warren, is currently away in England.

We do want to take some space to extend our special thanks to all who helped. Marce and Walt Johnson did an outstanding job of unloading glassware and delicacies from the cupboards and packing them up: not a single item arrived broken! Larry Sharp and Sue Black also assisted with packing and, most importantly, installed all the doorknobs/locksets at the new facility (and this was important, as Mike Darwin was dreading the prospect of having to do it himself). Jerry Searcy really showed his dedication by driving all the way from Las Vegas and putting in a full weekend of work. Poor Jerry, he arrived on a rain-drenched evening during some of the worst California weather in recent memory -- and then, still shell-shocked from the grid-locked California freeways, was immediately put to work by Mike Darwin loading equipment onto the van at the old lab!

Steve Harris, Carlos Mondragon, Allen Lopp, and Scott Greene put in two solid weekends worth of work. It's hard to know what to say about these troopers other than that they are always there when you need 'em -- and that's no small thing.

Finally, Jerry Leaf, Hugh Hixon, and Mike Darwin: Jerry, cool and organized, quietly directed the flow of things, Hugh the detail man, supervising the loading at Cryovita and coordinating the teardown of the operating room. And of course, Mike Darwin, who managed to worry and fume enough for everyone.

ALCOR's thanks to one and all!

\* \* \* \* \*

## NEW FACILITY GRAND OPENING

Due to the cancellation of the Lake Tahoe Life Extension Festival (see page 7) we have shifted the Dedication and Grand opening of the new ALCOR Facility from the weekend of April 26th to Memorial Day weekend. The Grand opening will be on Sunday, May 24th. All are invited to attend. A special Dedication of the facility, open only to ALCOR Suspension Members and their guests, will be held on Saturday, May 23rd.

There will be a reception on Friday evening for those folks who are coming in from out of town will be held at Saul Kent's home, which is located a few miles from the facility. Low-key recreational activities are planned for those who will be remaining on Monday. A full package of information will be mailed out to subscribers of CRYONICS in the immediate future.

\* \* \* \* \*

**"Give me a lever long enough and a prop strong enough, I can single-handed move the world."**

**--Archimedes**

## PHYSICIAN JOINS ALCOR SUSPENSION TEAM

We are pleased and proud to announce that a Board Certified internist has joined the ALCOR Suspension Team. We are not at liberty to disclose this physician's name, but we can say that he has participated in a number of our canine TBW experiments and has become a regular around ALCOR who is thoroughly familiar with our operating environment and procedures. This physician has also reviewed our Transport Protocol and been an immense help in providing medical advice relating to both our research and patient care programs.

We realize that announcements such as this which are of an "anonymous" nature do not do much to address or improve the issue of our credibility. Indeed, there is the question of whether it is even to our advantage to make such announcements in the absence of verifying documentation. It's a tough question.

After a lot of thought and discussion on the matter what we've decided is that we have an obligation to "let you know". We feel that the addition of a competent and energetic physician to our Suspension Team and complement of core people is a very important one — and one that materially improves the quality of the services we deliver.

Members or prospective members who need additional information should contact Mike Darwin.

On a related note, Dr. Ward Dean, M.D. recently toured our facilities (in the midst of our moving in!) and has also reaffirmed his availability as a consulting MD sympathetic to cryonics.

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**"Ofttimes the test of courage becomes rather to live than to die."**

**--Alfieri**



# SUPERCONDUCTIVITY COMES OF AGE

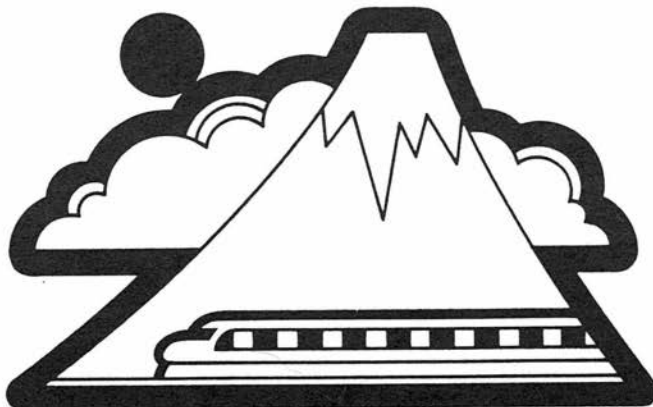
As we go to press it has been announced that researchers at Stanford University have succeeded in making the first "device" employing superconducting materials: a tunnel junction employing thin-film deposition of lanthanum strontium copper oxide and yttrium barium copper oxide. Tunnel junctions can be used as a basic component of computer chips.

Any avid fan of science fiction will tell you about Larry Niven's stories and his fanciful world of room temperature superconductors. A world of floating cities and marvelous electronic devices. A world where electricity can be moved through wires without resistance...a magical world indeed.

Regrettably, in the real world superconductivity does not occur except at very low temperatures, close to the boiling point of liquid helium. For decades physicists have searched in vain for a material or a technique which would free superconductivity from the clutches of near absolute zero, with notable lack of success. The reason for this search is (as Mr. Niven suggests) that superconductivity would be an incredibly useful property to have readily available, and because liquid helium refrigeration now makes its use uneconomical. If only, if only the temperature for superconductivity could be raised to say 77°K, the boiling point of liquid nitrogen — then long distance power transmission cables the diameter of a pencil could crisscross the U.S. without any power loss, and magnetically levitated trains moving .85 Mach or so (just under the speed of sound) could whisk us from New York to Los Angeles in 6 hours or so!

After years of no progress or inching progress there has been a major breakthrough in superconductivity research. The first breakthrough came late last year when researchers at IBM Zurich (the same organization that developed the Scanning Tunneling Microscope) found that lanthanum copper oxide, with barium randomly replacing some of the lanthanum atoms, becomes partially superconducting at 30°K (the previous record was around 23°K). Then, very quickly, breakthrough followed breakthrough. Researchers at AT&T's Bell Labs in Murray Hill, New Jersey reported a superconducting compound at a temperature of 40°K; and more recently Paul Chu of the University of Houston has reported superconductivity at 98°K, a whopping 21°K above liquid nitrogen temperature. Chu has also reported indications that he may have a superconductor active at 240°K, a mere 60°K from the 300°K of room temperature.

Chu's results were

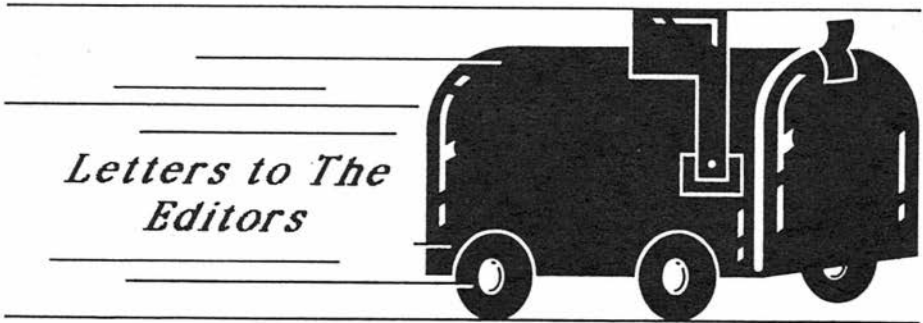


obtained by using a lanthanum copper oxide in which strontium replaces the barium. Don't expect floating cities or coast-to-coast power transmission just yet, because these materials are difficult to work with. But do expect a major revolution in industrial technology over the next decade or two. Initial applications are likely to be small-scale, such as computer components based on Josephson junctions, but the economic incentives for large-scale application are just too tantalizing to be very far off.

We have another prediction to make: To utilize these difficult materials will require real innovativeness and industrial finesse — in short the kind of thing American industry sadly seems to have largely lost the ability to do. The first superconducting device you will probably own will very likely be made in Japan. The Japanese have already overcome devilish technical problems in working with another superconducting oxide — barium bismuth lead oxide — and our bets are that they'll do it again, do it in remarkably short time and stun the world with the products they produce.

Whoever does it, it means a major improvement in the efficiency of industrial technology and a virtual cornucopia of new goodies. If Chu or others actually do demonstrate superconductivity at 240°K or higher, then all we can say is Larry Niven, move over!

\* \* \* \* \*



Dear Editors,

Your magazine has been gracious in the past by allowing space for those who disagreed with the articles. Hopefully, I will be accorded the same courtesy.

I wish to take issue with the article in February's CRYONICS in which Mike Darwin denigrated those who seek to promote cryonics through "marketing". Mike Darwin and CRYONICS painted a picture (literally) of those marketers as sly foxes at the door whose motives are questionable at the least. In the article, Darwin, cloaked in a holier-than-thou attitude, assumed piously, that because he and martyrs like him have labored long to build cryonics over the years (with little or no self-remuneration and questionable success) that those labors somehow endow them with a higher moral character than the "newcomers".

It appears, from Darwin's point of view, that life insurance salespeople are invaders, carrying with them inherently unethical practices that can destroy

cryonics. These "slick marketing types" apparently are unconcerned with propriety and are intent only on making money and building up their egos. Darwin also confuses the services provided by life insurance with that of toilet paper.

Incredible! This strident, self-righteous speech is shameful and blatantly insulting to one's intelligence, as well as to honest salespeople. It also exhibits his frustration at preventing those with professional sales skills from entering his domain. His efforts to frighten competitors away will not succeed. Those that can make money from cryonics will make cryonics a success.

The profit motive, as it seems to Darwin, is an illness, the prime symptom of which means the total atrophy of one's moral and ethical character. Well, I would like to inform Mr. Darwin's readers (not he, as his motives are clear) that the sales profession, life insurance sales in particular, is an honorable one. It is populated with many highly skilled individuals whose moral and ethical character are beyond question. And, feeling obliged to make a comparison, I must offer the following: that the benefits provided to society in one year by a single life insurance agent can eclipse the total past accomplishments of an entire cryonics organization. For these efforts the salesperson receives a commission. Is it then given that this commission is earned unethically or that the service to the client rewards the agent more than the client?

Sales for profit sounds selfish to Darwin. But Darwin is being hypocritical. He is opposed to selfishness on one hand (other people's), but is content with his own (i.e., his attempts to keep competitors out of cryonics). Darwin's paranoia, rather than help cryonics can only hinder it. His reluctance to recognize the legitimate capabilities of newcomers can retard the progress of cryonics. Nevertheless, the "glamour acts" are on the scene, and these people, armed with skills for making money, can bring to cryonics the attention it deserves.

Sincerely,  
Irving Rand, CLU  
Cryonics Coordinators  
of America

**Mike Darwin Responds:**

In my editorial "Simple, Isn't It" I was not attacking **competent thoughtful** salespeople, the profit motive, selfishness, or toilet paper. The message was more subtle than Mr. Rand either believes or would have us believe. Having read the rather extraordinary letter above, and having re-read my editorial I can only quote Shakespeare in a similar context: "Methinks the lady doth protest too loudly."

The message I was trying to communicate is simply this: A desire to make a profit is a necessary ingredient in the success of any cryonics program, or any human endeavor for that matter. However, a desire to make **money** uncoupled from care and concern about the integrity of the product being sold is another matter altogether. It is a fool of a gun salesman who sells loaded weapons to small children. This is true of anyone who purveys any product without some thought about **the nature** and the **risks** involved in marketing it. I, and the other



Officers and Directors of ALCOR remain profoundly concerned about people who say they "just want to make money off of cryonics". We have no problem with people making money from cryonics — and lots have: printers, life insurance companies, and real estate people. That is as it should be. But then these people are in a rather different position than is someone who wants to **market cryonics** and represent it to others. Make no mistake, I don't even have a problem with salespeople making money from thoughtful marketing of cryonics. But I would hasten to point out that with an undeveloped product like cryonics, peculiarly free of normal feedback mechanisms as it is, marketing and promotion must be pursued very carefully. Anyone who expects to just jump right into cryonics and graft on marketing and sales techniques for developed products is probably asking for trouble.

I also think it very important to point out that money alone is **never** a proper motive to do anything (often necessary, never sufficient). Many other factors, such as concern for the integrity of the product, its quality and its utility must enter into any truly profitable transaction.

As to life insurance and toilet paper, I used them as examples of developed commodities: consumer goods where the risks and benefits are generally known and the product is a mature one occupying a respected place in the marketplace and largely free of controversy and unknowns. Mundane products when contrasted with cryonics!

Both come to mind in connection with each other since both are represented as aids to dealing with two of the least pleasant and most inevitable concomitants of life: death and, well... Unfortunately, neither product effectively eliminates the underlying problem, although both help to make it less of a mess. As to toilet paper, don't underestimate its importance. It has undoubtedly saved many lives and I have the suspicion that most Americans would far more happily face a lifetime absent of life insurance than of toilet paper.

I must also take issue with the sparkling picture of the life insurance industry which Mr. Rand paints. Life insurance can be a very good product offering top value for dollars spent on it. But it is very often not. Much life insurance sold today (and in the past) is not a good value, or a good product. Very often in my experience it is touted by salesmen of questionable ethics and often astounding ignorance. (Perhaps some of our readers would like to share their experiences and observations on the value of life insurance and the quality of the salespeople they have encountered.) This is not to say that there are not good salesmen and good products out there, because there are.

Finally, as to Mr. Rand's remark that "the benefits provided to society in a single year by one life insurance agent can eclipse the total past accomplishments of an entire cryonics organization" speaks to his total lack of understanding of our purpose and objectives. Mr. Rand, the benefits provided to society by life insurance agents don't mean a damn thing if you're dead. Most cryonicists are unconcerned with the "social" benefits (in the sense you mean them) of anything. Most of us are concerned with trying to survive and enjoy our lives. We are not altruists. For those of us who are already waiting in suspension and for those of us who count on it to be there when we need it, cryonics has already given us more benefit than will all the "social good" produced by all the life insurance agents who have ever lived.

**Hugh Hixon responds:**

You assert that selling insurance is in no way comparable to selling toilet paper. Mike's statement is that selling cryonics is not like selling insurance or toilet paper, the nature of both being at a considerable remove from cryonics. Since I have sold neither product, I await the verdict of someone who has sold both for a final opinion, but I am inclined to agree that a comprehensive knowledge of the insurance business is more demanding than selling a limited line of paper products. I am confused by your assertion that Mike's article denigrates the profit motive as a driving force, since he makes it quite clear that he believes that profit in any endeavor is most readily assured by **proprietary interest**. This seems to make major parts of your letter something of a **non sequitur**. As to the rest of your letter, it has the tone of someone wishing to pick a fight on any pretext but the real one. In any event, the content of Mike's article is that new people to a field often bring their own priorities, and may well destroy the original intent of the founders.

Historically, cryonics has gone through several cycles of commercial interest. The results have been uniform. After a survey of the market, the money-motive (as distinct from the **profit**-motive) people have quietly faded away. The cryonicists have remained. It appears we have now been rediscovered by the money element. Unfortunately, in our prior experience this group has included both some rather coarse frauds, and some outstanding incompetents.

There has never been any question that cryonics must be profitable. In fact, one can reasonably say even now that for those willing to take the risk, it appears profitable. Speculative, perhaps, but definitely profitable. In return for an investment of our time now (either in manhours or dollars), we speculate that we will receive a much larger return of time, which we will also put to good use. To speak of cryonics only in terms of **dollars** spent and earned is to make an unwitting confession to the possession of a rather narrow, and ultimately fatal, outlook on life.

We have always wished that more competent people (Taken both ways. We are aware of most of our shortcomings.) would join us in making cryonics a reality, and we have always believed that the profit motive would be a major attractive force for many of them. The problem is that we need people in cryobiology, biochemistry, medicine, electronics, administration, and a host of other fields that require extensive preparation to be competent in. What we often get are salesmen who lack the background to understand that we are in severe need of fundamental product improvement, **and don't seem the least bit worried about this deficiency**. Hence our suspicions. In order to reach our goals we must screen out the frauds and incompetents. And since the matter concerns our lives, with fatal consequences possible at every decision, we must proceed with great care. Insurance is a mature field, with most of the pitfalls already discovered and mapped. Cryonics is still in its infancy, its major disasters yet to come. Your letter seems to assume that cryonics exists in a vacuum and is not subject to legal challenge or even to being banned. Surely you must realize that much of established medicine and law and the resources they represent may ultimately be brought to bear against cryonics because of fraud or incompetence. To act ignorant of these possibilities and the results is to confirm the worst of Mike's concerns.

I suspect that the history of insurance is a topic dealt with rather cursorily in the education of an insurance agent. I would like to point out to

you that the insurance rules and regulations that you have immediately to hand as a professional are a monument to fraud. Each regulation, almost each sentence, is a memorial to some clever and unscrupulous individual who managed to rob people of the money that represented the profit on their life's work. As an outstandingly successful insurance sales agent, you sit at two apexes. One of course is your professional standing. The other is the history of your industry, one that created the professional standards exemplified by those three letters you display proudly after your name: C.L.U. (Certified Life Underwriter).

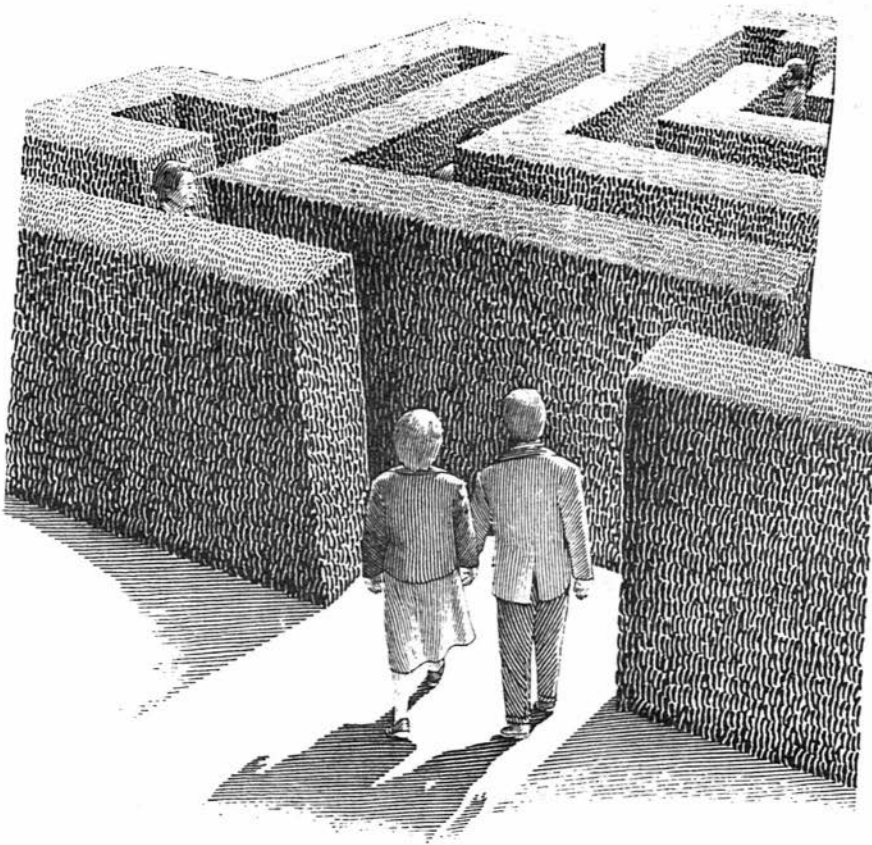
Cryonics is not a mature industry. We have no enforceable professional standards such as you enjoy, apparently without thinking. Who will write our standards? How many frauds will we suffer to evolve to a state comparable to your industry? **How many lives will be lost because people will lack the wit or fortune to avoid some clever swindler or well-meaning incompetent?** We perceive this as a real, life-threatening possibility, and we would be suicidal fools not to examine each new entry into cryonics with these thoughts and concerns in mind.

How do you tell an honest, competent insurance agent from a fraudulent or incompetent one. Would you hire anybody in your business solely on their assertion that they were a CLU? And if they were, and lost money for you or exposed you to tremendous liability, would you retain them? Substitute the word "cryonics" for the word "insurance". This is our problem, and your letter does not constitute a solution.

\* \* \* \* \*

**"The public be damned."**

**--W.H. Vanderbilt**



## ACS vs. ALCOR: Finding The Truth

by Mike Darwin

Many people who are not involved in the day to day work of cryonics and who are unfamiliar with the complex issues and judgement calls which confront working cryonicists often marvel (and complain) that all the cryonics groups are not in each others arms — working lovingly and cooperatively to achieve life everlasting. No doubt many of these same folks have no problem at all understanding why Democrats don't cooperate with Republicans (a mystery which I still do not understand since they both seem to achieve the same incompetent ends when elected) or why some acquaintances or businessmen they've encountered are people they never want to see, let alone deal with again! Sometimes there are very good reasons why people don't get along, let alone cooperate!

And this brings us to the subject of this article and to the specific case

at hand. It is no secret to most of our regular readers, that the relationship between ALCOR and the American Cryonics Society (ACS) has grown steadily worse. Few people enjoy unpleasantness or conflict, and many people on both "sides" and in the "middle" have opined that the two organizations "ought to cooperate with each other more" and "set personalities aside in achieving our common goals," such as reliable cryonics services, perfected suspended animation, and biological immortality.

That would be nice, were it possible. But it is not. The purpose of this article and the articles and letters which accompany it is to explain why we think that is the case. In many important ways, this article is long, long overdue. The officers and directors of ALCOR have long understood that unless people are fully informed about a situation, they not in any position to make good decisions about it. This was never truer than in this case.

It must be noted from the start that it would be impossible to summarize in every detail the many problems and differences of opinion which led to the divergence of ALCOR and ACS. As in any complex human interaction the sheer volume of significant events would overwhelm any paper chronicle suited to publication in this magazine. Nevertheless, we do have an obligation to state our position and to provide support for it.

We feel substantial pressure and obligation to do this for at least two reasons: First, many well-meaning people who are unacquainted with the issues and events which have divided the two groups are puzzled and even angry about what they necessarily perceive as a lack of cooperation based on stubbornness or ego. Secondly, both these individuals, and others who are new to cryonics are, we believe, being systematically fed misinformation about the conflicts and about the relative merits and demerits of ALCOR and ACS.

Over the past six months or so the Editors of CRYONICS, under direction from the ALCOR Board of Directors, have simply ceased all coverage of ACS and Trans Time. This was done for a number of reasons, chief among them: 1) It was not resulting in positive change in ACS, Trans Time, or in the relationship between these groups and ALCOR; 2) It was misinterpreted by many people not fully acquainted with the background, history, and "inside" details of both groups and their relationship to each other; and 3) It consumed space and time which it was increasingly felt should be put to use to provide positive and productive services to our members and document ALCOR's progress. The consensus of the board, and other trusted advisors, was that negative or critical discussion of other cryonics organizations did not and would not serve ALCOR in building a positive image.

Given the situation at that time, I felt, and still feel, that this was a wise course of action to pursue. However, events of the past few months have changed that opinion and forced all of us to reconsider this policy.

## The Specifics

From the very start, there have been many differences of opinion between ACS/Trans Time and ALCOR about how cryonics operations should be pursued. These differences have ranged from basic structure (profit stock company vs. nonprofit service organization) to issues such as public promotion of neuropreservation, research pathways to be taken, and investment and money handling procedures.

All these issues are discussed in some detail in the letters which follow this article. However, I believe it worthwhile to examine research as a case in point, since this has been one of the most publicly divisive issues.

## Research

ALCOR has emphasized hard-core cryonics research into basic ultrastructure (trying to pin down how much damage and conversely how much preservation is afforded by current techniques, ischemic insults, etc.) and the use of intracellular perfusates in its dog washout research. Unlike ACS researchers Paul Segall, Harry Waitz, and Hal Sternberg, ALCOR does not believe reversible solid-state suspended animation (at either high or low subzero temperatures) is just around the corner for whole mammals, and we have been and are highly critical of ACS research and claims of significant progress in this area. We have publicly challenged ACS on their claims of significant advances in whole mammal suspended animation based on recovery of weak atrial contractions in partially frozen hamsters, pointing out that recovery of cardiac activity, including working contraction of the ventricles has previously been achieved for the mammalian heart after cooling to far lower temperatures in the presence of far higher concentrations of cryoprotective agent.



ACS researcher  
Dr. Paul Segall

A large measure of our frustration and disagreement with ACS researchers has stemmed from these and similar claims about research conducted and prospects for future research. But the problem does not stop there.

Some years ago, when Segall and Waitz began their hamster total body washout experiments, ALCOR and Cryovita researchers were asked for advice and help. Both were provided in generous quantities. The pump which was used to carry out early ACS TBWs was provided by ALCOR, along with a quantity of disposables and some advice about the project, both specific and general.



ACS researcher  
Dr. Harry Waitz

Both Jerry Leaf and I emphasized the importance of using a perfusate which mimics the environment normally present inside cells (as opposed to perfusates such as Ringer's solution which are based on blood/plasma present outside cells) because of the inability of cells to regulate their internal environment as a result of deep hypothermia. Jerry and I also emphasized the importance of hydroxyethyl starch (HES) as a colloid in the perfusate -- a water-binding agent which prevents accumulation of fluid in the lungs, pancreas, and other body tissues (the lungs in particular are susceptible to injury from fluid accumulation).

Jerry, Hugh Hixon, and I all emphasized to the ACS researchers the tremendous logistic problems involved in working with animals as small as the hamster, and ventured our opinion that ACS would be better off starting with a larger animal model in order to establish the efficacy of their perfusate before going to such small animals. We thought this because it is very difficult to carry out extracorporeal procedures on small animals. There is no clinical equipment available in this size, the microsurgical procedures are daunting, and

it is difficult to get feedback from the animal. How do you reliably monitor central venous pressure, blood gases and chemistries, and so on in an animal that fits comfortably in your hand? Just getting a large enough sample for a blood gas determination would exsanguinate the animal! How would critical variables such as pulmonary artery wedge pressure and cardiac output be monitored when complex multilumen catheters with embedded thermistors are required — and are available only in human sizes?

We also pointed out that any advantages gained in low cost and easy availability of the animals would probably be lost in fabricating equipment and learning to work with such a difficult model and that getting feedback in the form of lab work and monitoring critical physical variables would be very difficult and costly, if not impossible. Our concerns and suggestions were waved aside. We were told we didn't understand the problems and that faster progress could be made with smaller, cheaper animals who were natural hibernators.

This latter argument was one which we felt was in fact a reason to **avoid** hamsters — they are hibernators and people are not — and we were interested in developing a perfusate for use on people! We were told that the political impact of being able to successfully freeze and thaw a hamster was more important -- since that would lead to a massive increase in interest by noncryonics scientists in extending and perfecting the process for larger mammals. We did not and still do not feel that such politically motivated research was in the best interest of cryonics.

None of our suggestions was followed, and virtually all of the ACS hamsters either never recovered or, in a few instances, survived only to die within a few hours of the procedure. Over the next year or so, ALCOR began independent TBW experiments on dogs employing HES and an intracellular type perfusate based on mannitol and the buffer HEPES. From virtually our first experiment we began to recover dogs from 1, 2, and even from **4 hours** of bloodless **perfusion** (as opposed to simple washout). In fact, of the first 3 dogs we perfused, we had 100% survival! We expected this would cause ACS to modify their approach. We were wrong.

At the 1984 Society for Cryobiology meeting in San Diego, California, Paul Segall approached both Jerry Leaf and I and again asked for advice on what could be killing the majority of their TBW animals. Jerry and I both emphasized the importance of HES to our success, and again pointed out our previous failures and problems with Dextran 40, which was the colloid Segall *et al* were using. We emphasized the importance of appropriate pH at low temperatures and of lab work in establishing feedback and indicating the need for corrections in blood and perfusate chemistry during the course of the procedure. We were also at pains to communicate that our animals took time to recover and often required many minutes or even an hour or two of blood pump- and oxygenator-assisted support, as well as artificial kidney treatment, before they could be disconnected from the perfusion circuit — an option not available in the hamster model. I also remarked that the ACS perfusate was glucose-free, and that, in the opinion of both Jerry and myself, washing an animal free of glucose when the liver was shut down due to hypothermia was a bad idea, and that we provided glucose in our perfusate and during hemodialysis to allow for prompt resumption of metabolism during rewarming.

Both Jerry and I commented later that we had never seen someone twist

themselves into such an intellectual pretzel to avoid hearing what we had to say and to find "alternative" explanations. "Solutions" to the problem ranging from ATP-magnesium chloride to "hamster plasma" were trotted out. All that would have been required to test the ALCOR "hypothesis" was to try it on a few hamsters. This didn't happen.

We have heard that nearly \$100,000 was spent on the ACS hamster project. We were told at the recent Life Extension Breakthrough Conference by ACS researchers that they have conducted "several hundred" hamster TBWs — with only a few short-term and one long-term survivor. By contrast, ALCOR has carried out 4 hour TBWs with continuous perfusion (a far more demanding model than simple washout alone) on 15 dogs, with an overall survival of 11 of them.

Meanwhile, ACS has "discovered" the importance of glucose in the perfusate to achieving recovery of hamsters and more recently, appears to have found the utility of HES as well. I quote from January, 1987 issue of **ACS Notebook**, 4(1), 5 (Jan, 1987):

"This experiment, as well as others, suggested that the Dextran 40 used in our blood substitute might be leaking out of the capillaries and contributing to edema (fluid accumulation) in the lungs and other tissues. We replaced the Dextran 40 with hydroxyethyl starch supplied to us and long advocated by Southern California cryonics researchers, and found that revival following one hour of total body washout at the ice-point was possible. Other factors may have influenced this result, so these experiments will continue."

Over two years and \$100,000 later ACS researchers arrive at the possible conclusion that HES may be useful in TBW work! Frankly, we don't know whether HES was the reason for this single success or not, since in our opinion the ACS TBW hamster research is so poorly controlled and free of the feedback normally required in bypass/perfusion research that it would be hard to draw any hard and fast conclusions one way or the other. But what we can say, is that **in the face of ALCOR dogs walking around and behaving normally after 4 hours of TBW using HES over two and a half years ago, the ACS trial of this agent is a little overdue!** We can also say that if we were in charge of researchers who behaved in this fashion and who expended the years, animals, and dollars the ACS researchers have in order to arrive at the "conclusions" and results they have we would have kicked them out the door and onto the pavement long ago.

## Recent Developments

We present the above chronicle as an **example** of the kind of unsatisfactory interaction we have had with ACS and Trans Time over the years. Frustration and disgust at their decision-making has characterized our evaluation of many aspects of their program. In spite of this, we have kept largely silent. Tensions are high enough already, and we have problems and deficiencies of our own to worry about and remedy.

Recently, however, several events have forced us to re-evaluate and alter our position on this matter. Due to mailings of ALCOR literature by the Life Extension Foundation in Hollywood, Florida, ALCOR has been put in touch with a number of members and prospective members of ACS. In some cases these members have expressed an interest in switching membership from ACS to ALCOR — often





based on very straightforward considerations, such as living in Los Angeles where ALCOR's primary facilities are located.

In December of 1986, an ACS member who I'll refer to here as Mr. Jarius, sent ALCOR a copy of a letter he had received from ACS president Jack Zinn. The purpose of the letter was to dissuade Mr. Jarius from transferring his suspension arrangements from ACS to ALCOR. In our opinion the letter was little more than a collection of gross distortions and misleading statements. We have since been told that other, similar letters have been sent out by Mr. Zinn.

of December 1, 1986. These letters have been printed in CRYONICS because they point up the kind of tactics ACS is using, and also serve to illustrate in great detail the differences between the ACS and ALCOR programs, and the reason for the "lack of cooperation by ALCOR" with ACS.

Following this article we have reproduced two letters responding to Mr. Zinn's letter to Mr. Jarius

We would very much have like to have printed ACS president Jack Zinn's letter as well, but Mr. Zinn, who has the authority to speak for the entire ACS organization, has denied CRYONICS permission to reprint **his** letter.

Copyright law forbids us to reproduce Mr. Zinn's letter, but we can and have quoted from it in our response to Mr. Jarius, and we believe these quotes will serve to illustrate the tone and content of the letter adequately. (If Mr. Zinn feels otherwise, we will gladly print the letter in its entirety.)

For those who wish to see it in its entirety, a copy of Mr. Zinn's letter is available for inspection at the ALCOR facility in Riverside, California. While we cannot publish Mr. Zinn's letter, we can read it to you, and will be happy to do so in its entirety if you call us.

## Need For A Response

The circulation, both in print, and by word of mouth, of vicious and distortive information about ALCOR cannot be tolerated in silence. We cannot and will not provide the sanction of the victim. It is long overdue for us to set the record straight. If anything, time has shown that we have not been vocal and forthright enough in airing our differences.

We have been repeatedly told by both ACS and by the Immortalist Society and the Cryonics Institute (the latter two organizations publish THE IMMORTALIST) that "they don't believe in saying negative things about other cryonics organizations." We have been told this by way of criticism of our approach of dealing with issues forthrightly and publicly. It is interesting to note that while neither IS, CI, or ACS ever mentions "negative" issues publicly, we have accumulated an interesting collection of vituperative or critical letters about ALCOR and ALCOR personnel that were circulated **privately**.

We want to send a clear message to everyone, ALCOR members, ACS members, and to prospective members of either organization that ALCOR finds the current ACS leadership unacceptable to cooperate with in any meaningful way, or to endorse by our silence. We do not claim to be without fault ourselves, or incapable of error. But we do claim to be honest in our claims and relentless in our exposition of problems (both research and administrative). We cannot and do not sanction many of the research and administrative approaches ACS has taken and we will not silently tolerate their campaign of innuendo and distortion aimed at impeaching ALCOR's integrity and credibility.



## Conclusion

We hope this article and the letters which follow will help to make our "lack of cooperativeness" more comprehensible. Hopefully they will also cause members of all cryonics organizations to reassess their positions, their loyalties, and their commitments.

The message from ALCOR should be clear: as far as we are concerned there is no middle position. We have strong opinions which we believe have a solid, rational basis, and we intend to stand our ground.

# "Dear Mr. Jarius..."

## Part I

### Mike Darwin Responds

#### Dear Mr. Jarius

Thank you for the copy of Jack Zinn's letter to you of 12/1/86 and for giving me the opportunity to respond to it. Even knowing Jack as I do, I'm a little stunned by his accusations and innuendo. As I said to you over the phone earlier today, the letter has a tabloid flavor to it: distortions, misquotes, and in some instances outright falsehoods. I think the most profitable thing to do will be to respond to his letter point by point, and provide you with as much opportunity for cross-checking the information I give you as I can. Because of the seriousness of the charges he makes, a number of other people have also asked to be able to respond to Jack's letter, and you may be hearing from them over the course of the next week or two. In some instances false or misleading statements were made about these individuals by Jack, and they wish to set the record straight.

#### The Need For A Thoughtful Evaluation

When I first spoke with you nearly a year ago, I urged you to "kick the tires", visit the facilities of the respective groups, meet the people, and form an opinion for yourself. That advice still stands. You wouldn't buy open heart surgery through the mail and the same is true of cryonics. I know that this approach means a lot of work, but there is simply no other alternative. I firmly believe that any reasonably intelligent person can sort out what's best for them and separate truth from falsehood — even in technical areas with which they are unfamiliar — if they'll only take the time and apply the effort.

#### Legal Matters

Jack is partially correct on his first point. He did call to notify us that in reducing the form size for printing we dropped below the minimum point size required by law on the instructions. He was the first to tell us, but he was not the last. We have counsel of our own and were duly notified of the error by our own attorney, as well as by one of our members who has a law degree (but has not passed the California Bar and is working as a paralegal). Nor were we alone in making this error, as Jack himself pointed out in his call to me. Nolo Press, the largest publisher of self-help legal manuals in California (and generally very excellent ones at that), also made the same error. Nolo is staffed and operated by lawyers! We promptly mailed out the proper-sized forms by First Class Mail, and sent an appropriate warning to everyone who had received them.



It is untrue to say that we advised people **not** to consult an attorney. Far from it. We did tell people **ALCOR President** **just** what the California Medical Association and our **Mike Darwin**

attorneys recommended we tell people: this form can be filled out without the aid of an attorney, although consulting an attorney would probably be a good idea anyway. (The California Medical Association also produces a very excellent self-help booklet and form for a "do it yourself" Durable Power of Attorney for Healthcare.) Let's face it, most people cannot afford to run to an attorney every time a document like this is created. And besides, **the very intent of the law was to allow people to make these arrangements themselves without recourse to counsel.** There is also the time and convenience element involved. It's very difficult to get people to fill out **any paperwork**, even if it is made very easy for them to do so. It is unrealistic to expect our members to consult an attorney for a self-help legal form such as the Durable Power of Attorney for Health Care. I should also point out that for folks living outside California, we recommended that they consult a lawyer to see to what extent they may be able to use elements from the form in their respective states.

## Interlocking Directorates?

It is true that Jerry Leaf, Hugh Hixon, and I are officers and/or directors of both ALCOR and Cryovita. The implication that the ALCOR Board is controlled by Cryovita stockholders is untrue. The ALCOR Board has 8 members, three of whom hold stock in Cryovita. Also, this is not the issue of concern that it is in Northern California since ALCOR provides all cryonic suspension services "in-house": perfusion, cool-down, and storage. No money is paid to Cryovita for services, and supplies and space are billed at cost. In fact, Cryovita has allowed ALCOR unlimited use of its facilities for nearly six years without charging a cent! I would hardly call this a conflict of interest situation! For the record, I hold 12% of Cryovita's stock, Hugh Hixon holds 8%, and Jerry Leaf holds the balance. In any event, ALCOR, just like ACS, has a majority of its directors as nonstockholders in Cryovita. A more correct summary of the ALCOR/Cryovita relationship to this time is that three of ALCOR's Board members own a company which they use to provide support to ALCOR in some functions. In those few years when Cryovita has had any non-"contributed" income at all, it has been mostly from sources other than ALCOR. **Cryovita has never made one cent of profit from ALCOR and the books of both organizations are open for inspection to substantiate this.**

What is amusing and what Jack **doesn't mention** is that the majority of ALCOR directors hold stock in Trans Time, in some instances hundreds of shares! Not even this financial incentive has motivated the ALCOR Board to pursue services with a company they do not have confidence in. A number of other ALCOR Suspension Members who also hold stock in Trans Time apparently feel the same way.

The situation of interlocking interests goes far beyond the mere numbers of ACS directors who own stock in Trans Time. One of the major differences we had with Trans Time was their policy of charging an "encapsulation fee" to the member which was roughly equal to the purchase price of a new dewar. This encapsulation fee did not give the member ownership of the container, but rather the ownership rested with Trans Time. In practice, what this means is that **even if ACS wanted to switch service providers for storage, it would be almost impossible for them to do so!** Why? Because they would have to purchase another dewar for the patient in

order to move him elsewhere. Based on our past experience with Trans Time, the patient most probably also would encounter a "de-encapsulation fee" as well. We saw this maneuver used recently by Trans Time in what was in our opinion an attempt to avoid losing a storage contract. This is one of the reasons why ALCOR insists on owning its own storage equipment, and does so. The way things are set up with ACS, Trans Time has a stranglehold of control and they have the patient "locked in" by virtue of owning the storage equipment.

ACS has a similar policy of "locking people in" by charging costly up-front fees which discourage members from switching organizations by generating a false feeling of "loss".

## Free Legal Work?

Jack says: "Counting yourself, ACS has four attorneys and two judges as members, as well as several other associated attorneys. The only legal help I've heard of ALCOR having is Linda Abrams, who wants \$100.00 per hour.

"The lack of legal help hurt Darwin in Phoenix, where he stood by helplessly while a doctor allowed the continued brain cell deterioration of a patient by refusing to pronounce the patient as dead, intentionally preventing cryonic suspension. Darwin failed even to call on us, despite the fact that we have assembled a special set of emergency legal response forms..."



ACS President  
H. Jackson Zinn

To respond to these accusations I will start by pointing out that ALCOR has access to good counsel -- and yes, we pay for it. In fact, attorney James Bianchi, who has acted as counsel for ACS in the past, routinely advises us, and we have the law firm of Santucci, Potter, and Leanders of Newport Beach on retainer. Nevertheless, of all the criticisms in Jack's letter, this is the one I feel is most valid. Not because of lack of readiness in an emergency, but because of the lack of ability to engage in litigation where the payoff would be worthwhile only when the legal help is free or inexpensive. It is my understanding that Jack Zinn has made money for himself on this score engaging in litigation for Trans Time (see enclosed material documenting this).

In fact, a very good question is: "Where is all this free legal help Jack keeps talking about?" Yes, it's true, Jack has engaged in several lawsuits on Trans Time's behalf, but what he didn't tell you is that he has done so on a contingency basis. For instance, he made in the vicinity of \$3,000 on the lawsuit against KNXT for misuse of Trans Time video materials. What about all this legal work on trusts and the ACS (then BACS) legal checkup that Jack touts? That was done by attorney Bianchi, **and it was paid for, not contributed free.**

What about all these lawyers and judges who are members of ACS? I know several of them, and I can assure you that they have not been doing any significant amount of legal work for ACS -- free or otherwise! As an

example, as far as I'm aware you have not done any free or discounted legal work for ACS, and no doubt for much the same reasons as other legal professionals who are ACS members. My point is that contributed professional services are nice to have, but they are not often available in practice. Where the need for a service recurs, and it cannot be reliably provided for in-house, it is definitely better to develop a good working relationship with a skilled professional and to pay for it. After all, not having free legal services may not be that much of a liability if you make up for it by attracting more income. And, as we've learned the hard way here at ALCOR, very often contributed services have strings attached or work against you in the long run. When you are paying a man for his services you aren't hesitant to call him if you have a problem. On the other hand, when he is contributing them you often won't call until the situation gets really bad, for fear of inconveniencing him.

Every member of the ALCOR board believes in the ethic of "value for value." Our members' obligations to us are covered by their membership fees, and contributions of money or effort beyond that are truly voluntary. This is true whether our members are professional writers, construction workers, secretaries, doctors, — or lawyers. We never seek to exploit any of our members.

## Distorting The Phoenix Tragedy

The story of the "lack of legal help in Phoenix" is a gross distortion of a situation which occurred in October of 1981. A young couple from the Phoenix area contacted us about making arrangements for a relative who had suffered a massive intracerebral hemorrhage and was on a respirator. The patient was basically "brain dead" and the family wanted him suspended. Neither the patient nor the family had any previous arrangements with us, or with any other cryonics organization. When the family communicated their intent to the attending physician, he refused to take the patient off the respirator specifically to frustrate their desire for suspension.

At the time I advised them that there was plenty of legal recourse possible, and urged them to pursue to it. **They were unwilling to do so, primarily because they felt his chances were slight to begin with and they did not feel it worth the wrenching turmoil of potential litigation.** Their finances and willpower were extremely limited and despite my best efforts, including offering to refer them to an attorney who "would possibly charge modestly or do the work for free" they declined to pursue the matter. I have repeatedly pointed this out to Jack.

Jack's distortion of the story is particularly ludicrous since he and I were on good speaking terms at the time and the attorney I was going to refer them to was **him!**

## Patient Storage Capacity

Jack argues here that "ALCOR has room for only two whole-body patients; ACS has room for fifteen. This can become important in a situation where several deaths occur within a few weeks of each other...Remember also that ALCOR emphasizes neuropreservation while ACS emphasizes whole-body."

ALCOR does have an empty 2-patient capacity whole-body storage unit. And yes, Trans Time does have a unit "capable" of holding between 6 and 10 patients (depending on their size) and three other dewars capable of holding a combined total of five patients. But let's look at that situation a little more carefully.

One of their dual patient units is, according to Art Quaife, Trans Time president, not operational since it is boiling off more than 30 liters of liquid nitrogen a day (normal range is 8-10 liters per day). To be charitable to them, this defective unit could be used for cooling a patient down to liquid nitrogen temperature — but longer term storage at that boil-off rate would be prohibitively expensive — over three times more costly than in a properly functioning unit. At last report, I understand that TT's efforts to repair this dewar by re-evacuating it had failed, and that they had been informed that reworking it would cost a significant fraction of the price of purchasing a new one. You can check this information with Art Quaife. One of their dual patient units is occupied by two whole body patients and thus is full. The other single patient unit is occupied by (last I heard) three neuropatients and thus cannot accommodate a whole body patient. This unit is very inefficient and reportedly boils off nearly three times the amount of liquid nitrogen that a properly functioning dual patient dewar does.

That leaves their "10-patient" unit. There's something that Jack didn't tell you about that unit. It does not operate properly (see articles I've enclosed — including one from Trans Time on how to do a "fix" on this unit). When it was ordered from the manufacturer it was specified to boil-off 0.7% per day. In fact, it boils off over 2% per day. Performance was so poor that TT only paid half (or less) of the contracted purchase price. In order to operate this unit without losing your shirt you would need to have it full to capacity. Consequently, over 6 years after they took delivery on it, TT has still, to the best of our knowledge, to put its first patient into it. I believe this was a very poor and unlucky decision on their part. I sympathize with them to some extent though, because they were unable to deal with a large, reputable manufacturer and had to deal with a small firm of questionable reputation — and with no cryogenic engineer on the staff! My only criticism is that they probably should have tested the water by having a smaller unit built first. Despite advice from me that they should travel to inspect the facilities of the manufacturer, this was not done and the dewar was ordered from a small, garage-type operation without ever meeting with the principals or inspecting their facilities. However, hindsight is always the best foresight! The point is, their big unit was, in their own estimation, a severe set-back for them and it is not economical to use unless they have a lot more patients than they do now. Also, the unit is only able to hold 10 very thin patients. Larger patients would reduce the capacity to 6 or 8, a significant economic difference.

Thus, the bottom line is that ACS/Trans Time does not even have ONE properly functioning empty patient storage dewar. Using less efficient or improperly functioning equipment is a tremendous or even catastrophic load on their patient funding. Once you are in suspension you cannot go out and earn more money. Careful husbanding of funds and attention to containing costs is critical to successful long term care. Right now, ALCOR's cost for storage of our neuropatients (including amortization of the patient storage

dewar) is \$260 per year per patient. This is due to careful planning and the purchase of highly efficient equipment. Our costs for whole-body patients are \$2500 per year per patient. Ask ACS for an accounting of their storage costs. Last we heard Trans Time was charging \$900 per year for neuropatients and over \$3000 per year for whole-body patients.

## Intelligent Use Of Resources

When you are suspending only 1 person every year or two, you adjust your resources accordingly. We can handle two simultaneous deanimations. Given other urgent priorities such as research, we do not feel it prudent to stack up dollars in cryogenic dewars which just sit there going bad. The average working life of a cryogenic dewar is about 10 to 15 years. They can be reworked, but it is time-consuming and costly to do so. The vacuum is continuously deteriorating on them whether you use them or not. Given our current suspension membership size (less than 100) and our median age and projected mortality (age 40 and less than 1 person per year) it would be an inappropriate allocation of resources to have more dewars just sitting around waiting for a disaster. There should be a rational basis for allocating resources, and we believe we have one. We are firm believers in the highly successful Japanese "ready just in time" inventory control technique. We believe it would be poor planning and bad management to have a 10-patient unit sitting around empty for 6 years when the resources it represents could be put to work more profitably elsewhere.

Also, it does not take "months" to get a new dewar in and put it into operation. The lag time is now about 30 to 40 days. Trans Time has had similar lag times on dry ice and in one instance even went nearly two years with the patient not only on dry ice, but partially submerged in and saturated with isopropyl alcohol (skin, ears, lungs, etc.) while awaiting encapsulation. This was despite vigorous complaints from Jerry Leaf, other ALCOR personnel, and myself, including a professional cryobiologist of considerable reputation, that the patient should be moved out of the alcohol. (It should be noted that Trans Time did not proceed to liquid nitrogen temperature due to a dispute with relatives, not due to lack of dewar space.)

ALCOR switched from alcohol as a pre-encapsulation cooling fluid about two years ago. We did so because of first hand experience (in ACS suspensions!) with leakage of the alcohol from the cooling bath into the bags containing the patient, and because it is a serious fire hazard, a poor heat exchange medium and, in our opinion, a serious threat to the well-being of the patient. Alcohol can dissolve water out of tissues and migrate into the tissues, even at dry ice temperature. ALCOR currently uses a silicone cooling fluid (Dow-Corning 5 centistoke polydimethylsiloxane) which is not a fire hazard, is not water soluble, and is completely nontoxic (it is a major ingredient in cosmetics, shampoos, skin creams, and anti-gas stomach tablets). The evaluation to make this selection was done over a period of several years before we finally found a suitable liquid, with a great deal of paper evaluation and a final physical evaluation of nearly a dozen candidate liquids here at ALCOR. (See the article in the accompanying July, 1984 issue of CRYONICS.)



## ALCOR's Patient Care Record

Patient care has been a top priority for ALCOR. We've constructed a steel-reinforced, fire and earthquake resistant vault for our neuro-patients and we intend to have a similar one available for our first whole-body patient too (design work is essentially done). We have selected our building site on a reasonably geologically secure area. Our soil compaction is 98%. (Almost unheard of! The City of Riverside and the contractor's soils engineers ran the test three times before they finally believed it.) There is no ground water, we are in an "8" damage risk zone (See the attached Earthquake Scenario sheets mentioned below for an explanation of this scale) and our building was built for seismic resistivity, with heavily steel reinforced 7-1/2" thick concrete panels. By contrast the Trans Time facility where ACS patients are stored is a block building with concrete poured in from the top. These buildings do not do well in earthquakes. The Trans Time building is also older, dating back at least to the 1950's, before many of the modern construction practices used to minimize seismic damage were developed and deployed. Perhaps the biggest risk with their facility is its location in an area with high groundwater and a "9" damage risk classification, which implies partial or complete collapse and loss of the structure with a possibility of ground failure. I have included photocopied pages from the EARTHQUAKE PLANNING SCENARIO books published by the California Department of Mines and Geology showing the location of the Trans Time facility and its risk of damage during seismic activity, and the similar map covering our facility. Since we are building and "custom designing" our own facility, there is a very substantial inner structure which we feel will survive the collapse of the outer building, in the improbable event that should occur. (It will also minimize any damage to the outer structure, so that we can continue to use it, rather than having to abandon it.) We are also planning the shelving, equipment racks, etc., to hold onto their contents in the event of an earthquake, with major equipment being bolted to the floor and walls. And of course, our neuropatients are encased in an outer shell of steel reinforced concrete.

## Trans Time's History Of Patient Care

One final word needs to be said about ACS/Trans Time patient care. Up until 1981 ALCOR relied on Trans Time to provide storage services for our patients. A major factor in terminating that arrangement was negligence on the part of Trans Time which allowed an ALCOR patient they were caring for in their Emeryville facility to warm up more than 150°C. This negligence was compounded by the failure of Trans Time to notify the next of kin (with whom they had a direct contract), or to properly notify ALCOR until weeks after the incident had occurred — and then only by hearsay!

## Neuropreservation

ALCOR offers both methods of suspension. Members are free to choose. The majority of our members now in suspension are neuropatients. This is also the case with ACS (3 out of 5), another fact which Jack overlooked mentioning. Our Suspension Membership is divided almost evenly between those who have elected for Whole-Body and those who have elected for Neuropreservation.

We have tried to give the Neuro option exposure and to see to it that our membership is informed about it. We have done this because it is less expensive, and it offers some real biological, legal, and logistic advantages. It would be unfair to our members for us to avoid discussing and promoting this option when its advantages might mean the difference for some of them getting suspended or not — and/or staying suspended.

Finally, we are absolutely committed to keeping our patients in suspension. In part we have accomplished this by insisting on arrangements for money on the barrelhead at the time of suspension, but with the neuropreservation clause in our contracts, our overall cost per patient at current expenses can be reduced to less than \$300 per patient per year in an emergency. We feel this will give us the ability to ride out some **very** hard times! By contrast, Trans Time/ACS have **lost** three patients, for a complex of reasons. One to burial, and two transferred to us and converted to neuropreservation. I did one of these suspensions for Trans Time, and knew both patients, and due to neuropreservation we are able to keep them in suspension. We have been vigorously criticized by some ACS/Trans Time people for this "interference" with their affairs by saving these patients. Our insistence on maintaining neuropreservation as an option is due in large part to observing ACS/Trans Time's problems.

## Separate Accounts

Jack begins this section of his letter with a total untruth cleverly blended with a half truth. He says: "ACS allows the free choice of a trustee for trust funds ...ALCOR insists on holding the trust fund money and on pooling it with the funds of others who have died. When you are revived, how do you know, with ALCOR, how much you should get back?"

ALCOR requires separate accounts above the minimum for a host of reasons, but there are several critical ones which need discussing. First of all, the IRS reviewed ALCOR's set-up in granting us tax exemption. Initially, we used a system very similar to that which ACS is using. We were denied tax exemption. In order to meet the requirements for 501(c)3 status we had to be uniform in our charges and pool our accounts. The Cryonics Institute in Michigan had the same problem and was never granted tax exempt status, despite the fact that they retained a leading Washington, D.C. law firm to argue their case on appeal. CI is still not tax exempt. This means a potential loss of money from patient trusts and it also means a dearth of research money coming in. Not a very good situation.

Even now, the matter is hardly settled. The whole area of "fee for service" and tax-exemption is a gray one, and our counsel has advised us that we (and all other other cryonics organizations) can expect much "clarification" and "challenge" in the coming years. The point is, this is a complex and very sensitive area and for Jack to imply that we have made the difficult decisions which we have without careful thought and foresight reflects more on his degree of sophistication or lack thereof than on ours.

Another important reason for our insisting on at least receiving the minimum required for adequate care (which is NOT a trust as Jack implies) is ALCOR's responsibility in the matter. We are responsible for carrying out a suspension — not the trustee — and we want to be assured of the **minimum**

resources to do it. Keep in mind that the \$35,000 and \$100,000 are **minimums**. We always recommend that people provide more, as much more as they possibly can. **Above these minimums ALCOR also maintains separate accounts and we allow independent trustees.** However, as you know, trust arrangements are costly, take time, and ideally should be pursued by independent counsel. Many of our members are middle class and can barely afford life insurance, let alone the \$2,000 to \$3,000 we've seen quoted for trusts! Keep in mind that the trust must be integrated into the law of the member's own state and that the attorney doing it will have to take the time (and charge for it!) to learn all about cryonics and cryonics trusts. We've seen bills for \$6,000 for Bianchi-type cryonics trusts! That may be acceptable if the member can afford it, but that is not often the case and it is not often even required where the estate is simple and life insurance of modest amount is to be the sole funding. We want a two-tiered set of arrangements so that we can get people signed up with basic protection in place, and then look to putting the icing on the cake in the form of trusts and other secondary instruments to further secure it. What kind of sense does it make to have people out there with NO protection for six months or even a year or two while attorneys work up trusts?

As to how to sort out whose money is whom's? Since everyone comes in at the same minimum and separate accounts are maintained above the minimum, what's the problem? Also, that minimum is just that, a minimum projection of costs for suspension and storage based on a conservative (and historically realistic) 3% to 4% annual rate of financial growth.

## Jim Yalder And ALCOR Investment Policies

Jack quotes an ALCOR member (whom we will call Jim Yalder for purposes of anonymity) as saying he "left ALCOR this year for what he felt were highly ill-advised investments by the ALCOR Board."

I have been unable to reach Mr. Yalder so far, and neither he nor anyone else has notified us in any way of such a change or that he no longer needs our services. We are going to check on this, since as far as we know, we are still covering him.

As to "ill-advised investments", I can't imagine what Jack or Jim might be talking about, or even how they might define them. All money provided by patients is invested in government insured securities, certificates of deposit or T-Bills. ALCOR has a policy of diverting 10% of all incoming non-patient care revenue to the patient care fund. So, when you buy a subscription or contribute money to research, 10% goes to the patient care fund to act as a hedge against inflation. We have invested small amounts (\$2,000 to \$3,000) of the "10% fraction" in mutual funds and on one occasion, in stock. We have consistently made money with this approach, and we feel that it is important to use this self-generated revenue to achieve some good growth and experience in investing. We think this only prudent.

**In no case have we ever invested patient-provided funds in this way.** I have enclosed financial statements from ALCOR documenting the steady growth of our patient care fund. You might ask Jack how much patient money ACS has and you might ask for ACS patient care fund financial summaries on a month by month basis for the last 3 years or so. I think you'll find them more

than a little interesting. Please check for evidence of "highly ill-advised investments" by ACS.

## ALCOR And ACS Perfusion Team Qualifications

Jack cites ALCOR's team qualifications as consisting of "Mike Darwin, Indianapolis High; Jerry Leaf, Bachelor's in Philosophy; Hugh Hixon, Master's in Biochemistry." He then goes on to list the ACS "team" as consisting of "Ward Dean, M.D. Los Angeles physician specializing in emergency medicine, Dr. Paul Segall, Ph.D. in Anatomy and Physiology; Hal Sternberg Ph.D. in Anatomy; Dr. Harold Waitz, Ph.D. in Anatomy; Dr. Eugene Bresnock, Ph.D. & D.V.M. (15 years in animal perfusions); Art Quaife, M.S.; Jerry White, M.S., etc."

How many training sessions has Ward Dean, M.D. participated in or conducted for ACS? How many cryonic suspensions has Ward Dean participated in? As of the time this letter is being written, the answer to those questions is "none". Ward is a man I know reasonably well, and he has stated on numerous occasions in the past that he has allowed ACS to use his name to promote them and give them credibility. That hardly gives them competence as well. I have to question Ward's judgement in continuing to allow his name and reputation to be used in this way. I am sending him both a copy of Jack's letter to you, and my reply. Ward lives and works here in Los Angeles and it is misleading for Jack to imply that he works closely with ACS, or would be able to respond to people in the L.A. area with equipment and expertise in the event of an emergency.

ALCOR has a physician working with us who has participated in a number of our dog washout experiments and who is also highly skilled at emergency medicine. For professional reasons, he wishes not to be publicly identified with cryonics. However, if you wish to meet him, I think that can be arranged.

ALCOR is advised by one of the world's leading cryobiologists (complete with Ph.D.), who is also one of our Suspension Members. Once again, we cannot use him to promote our organization, but I believe a phone call or meeting could be arranged.

To imply that the sine qua non of competence is a degree is absurd. Degrees are often useful indicators of an individual's ability but the lack of a degree is not proof of lack of ability. This is particularly true in an area like cryonics, which is outside of existing academic standards or areas of expertise.

Once again, Jack has distorted things. What Jack didn't tell you about Jerry Leaf is that he is a research associate in the thoracic surgery department at UCLA, a board eligible cardiopulmonary perfusionist (heart-lung machine operator) and coauthor of numerous papers on protection of the heart from ischemic injury (injury due to lack of blood flow). I have enclosed some research papers from the JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY on which Jerry has recently appeared as author. Jerry has done seven cryonic suspensions, is responsible for developing most of the techniques used in doing suspensions today, and has done the majority (five of eight) of Trans Time's suspensions for them! (Ah, the

little details which Jack leaves out!)

While it is true that I am a "college drop-out", I am also a state-licensed hemodialysis technician (artificial kidney machine operator) with 7 years in-hospital experience doing dialysis in the intensive care unit. While I don't advertise this as any great shakes, it is a bit different from the characterization Jack implies of me as a bumbling illiterate. My years of hospital work in an acute care setting have proved invaluable in upgrading ALCOR patient care, providing good nursing care to our research animals, and perhaps most importantly, interfacing with the hospital environment and knowing the ropes in a suspension situation. I have also had over 15 years of experience in cryonics, have participated in 6 cryonic suspensions, and have made many significant improvements in care for cryonics patients. I also have extensive laboratory experience and have conducted a fair amount of animal research.

ALCOR also has an excellent veterinarian in the person of Richard Glassberg, D.V.M. Dick has worked with us for over three years and has been critical to the success we have had with our dog research program.

Dr. Eugene Bresnock has never performed a cryonic suspension for ACS or anyone else. He has very adequate facilities for animal research in Northern California, but he is located nearly 2 hours from ACS' facilities in Oakland in the small rural community of Winters. In our estimation there are likely to be significant logistic and other problems in Dr. Bresnock carrying out a suspension for ACS. For one thing, in a recent meeting we had with him, Dr. Bresnock mentioned possible conflicts with his animal research work and indicated a possible inability to "drop everything" and respond in the event of an inconvenient cryonics emergency (he is currently trying to get his own "contract service" for animal research off the ground). Also, keep in mind that Bresnock is not signed up and has no personal interest in cryonics.

All members of the ALCOR suspension team are committed and signed up people, including team leader Jerry Leaf. Jerry has a consistent and long history of dropping everything and even risking his continued employment to respond to an emergency. Will Dr. Bresnock and Dr. Dean respond similarly? I would suggest that you might want to call them and ask them, I've listed their phone numbers below.

Dr. Eugene Bresnock D.V.M.: (916) 752-3415

Dr. Ward Dean, M.D.: (213) 652-5731

It has taken us many years to establish the quality control and degree of sophisticated care that we offer at ALCOR. I enclose a copy of our recent technical papers on both whole body and neuropreservation suspensions (Incidentally, the two whole body suspensions documented in one of the enclosed papers (and three other suspensions) were performed by Jerry Leaf and a team consisting largely of ALCOR Suspension Team members for ACS/Trans Time). Ask ACS for similar papers and for a similar written, detailed summary of the techniques and procedures they have applied or intend to apply.

ALCOR is also the only organization that has dispatched tens of

thousands of dollars worth of equipment across the country and beyond in an effort to provide a remote network of support. We have heart-lung resuscitators and emergency medications in England, Australia, Indiana, and Florida, as well as in three locations in California: Los Angeles, Sunnyvale, and Lake Tahoe. We are also the only organization with a comprehensive, in-house training program including an extensive, written course, which I would be happy to show you upon request. Northern California thinks it's good too. They have offered to purchase copies of our course manual, and when we held a training session up in Sunnyvale, almost all the key technical people wanted to attend. (Jack Zinn was not one of them.) ALCOR Field Coordinators and Suspension Team Members have logged hundreds of hours of training time in the basics of resuscitation, medication administration, and emergency transport of cryonic suspension patients. I suggest you ask ACS for hard evidence of comparable training and performance and for a copy of any contracts they have with Dr. Bresnock, Dr. Dean, or other outside service providers.

As a final note on evaluating the significance of academic credentials, it should be noted that the vast majority of Ph.D.'s in Biochemistry, Medicine, and other life sciences apparently hold the opinion that cryonics is unworkable, fraudulent, and/or otherwise not worth pursuing. You have obviously chosen a course counter to all these learned academicians with Ph.D.'s and followed your own independent judgment. Welcome, friend.

## Research Programs

Perhaps the most ludicrous claim of all in Jack's letter is his assertion that ACS' "...research program is far ahead of ALCOR's. It is our present belief that the chemical combination they use for perfusions is toxic and dangerous." Let's look at this statement in reverse order:

First, what does this statement "toxic and dangerous" mean? Does he mean that the cryoprotective agents we use are toxic and dangerous? If so, he is of course technically correct. All cryoprotective agents are toxic and dangerous. Does Jack mean to imply that ACS has a cryoprotective perfusate mixture that is totally nontoxic and poses no danger? Does he mean to say that ACS' perfusate is **less** toxic and dangerous than ALCOR's? If so, why doesn't he say so, and state his reasons so they can be evaluated and responded to?

ALCOR was the first to consistently test its perfusates in animal models before applying them to human patients. Our research has yielded unprecedented and to our knowledge, as yet unequalled results. Our base perfusate (minus cryoprotectives) has allowed for **consistent** recovery of dogs from 4 hours of **continuous, blood-free perfusion (circulation of a blood substitute through the tissues) at a few degrees above the freezing point of water**. In animals where there were no technical difficulties (such as respirator malfunctions or other problems unrelated to perfusate design) we have recovered virtually 100% of our animals without any lasting ill effects.

Our perfusate design is based upon the work of a number of other investigators such as Dr. Gregory Fahy of the Red Cross Blood Lab in Bethesda, Maryland. We are using a modified version of his renal

preservative solution (RPS), which has been used to successfully store rabbit kidneys at near 0°C for 3 days. The general approach we have used is to employ an "impermeant" compound such as mannitol, sucrose (table sugar, except that we use reagent grade rather than the stuff in the grocery store), or gluconate to inhibit the cell swelling which occurs at low temperatures in nonhibernating animals such as man. This principle is well established in the literature, and I can provide you with copies of many papers documenting success with this approach in a wide variety of organ systems. In fact, the use of such "intracellular" solutions is now the norm in **clinical** organ preservation, and has been since the introduction of Collin's Solution nearly a decade ago!

We have tried, unsuccessfully, to convince Drs. Segall, Waitz, et al of the importance of this approach. They apparently mistakenly believe that mannitol and/or sucrose are metabolized to make metabolic acids — despite the fact that there are no metabolic pathways for these agents, and plenty of evidence to the contrary. They have persisted in using an "extracellular" type solution in their animal work which it is **our present belief** is not as effective as ALCOR'S approach and likely to result in significant additional injury.

ACS' Dr. Segall has conducted hundreds of hamster experiments using this "extracellular" perfusate and very brief periods of washout (without continuous recirculation — which is essential for being able to introduce cryoprotective agents) and has lost almost all of them. Out of several hundred experiments, I understand they have had only one long term survivor! Worse, because of the severe technical demands of vascular surgery on such small animals, they have a lot of difficulty separating losses due to surgical technique from losses due to their experimental protocol. Thus, they are in the position of knowing neither why all the dead hamsters died, nor why the few survivors lived.

Segall et al have also persisted in using Dextran-40 as an ingredient in their perfusate despite the fact that we have demonstrated that it does not stay in the capillaries during deep hypothermia and thus contributes to tissue swelling and death from fluid accumulation in the lungs (pulmonary edema). We communicated this information to ACS researchers over 3 years ago, apparently to no avail.

Including all 15 of the dogs ALCOR has done using our base perfusate (and that includes the technical failures which were unrelated to the perfusate itself) we have had 11 long term survivors.

By contrast, ACS has done three dogs, perfused them only long enough to wash them out, held them at a low temperature in the absence of active perfusion for 1 hour and then rewarmed them. They have had one long term survivor (and that animal did not have a complete blood washout) and according to Dr. Waitz, that animal had abnormal behavior for a period of a week or more after the procedure which they felt might have been indicative of blindness.

As to other ALCOR research: ALCOR was the first to identify the fracturing problem in human patients, to make a full disclosure of those findings and to follow them up with additional animal research — research

which ultimately explained the mechanism of the injury and a possible pathway to solving the problem. **Did you even know that if you are cooled to liquid nitrogen temperature your body, including your brain and other major organs, will be seriously cracked and fractured, in some cases even being completely fractured into pieces? Did ACS ever disclose this to you?** I enclose a reprinted article from CRYONICS magazine documenting this work.

Additionally, ALCOR has carried out pioneering research to establish the degree of preservation and degree of damage associated with current freezing techniques. We are the only organization in the history of cryonics to have undertaken such studies. More recently we have completed a preliminary survey of research to establish how rapidly postmortem deterioration proceeds with respect to loss of biological structure.

We have led in research every step of the way.

Jack goes on to say "It is likely that we will continue to outpace ALCOR in research and suspensions because of the qualifications of our scientists... A \$20,000.00 grant was received for a set of primate freezing experiments by Drs. Waitz and Bresnock this fall. Outside research money will never go to college dropouts and Bachelors of Philosophy. You've got to have the credentials. If you don't, you lose out to those who do. That's modern grantsmanship."

First, the \$20,000 grant to Dr. Bresnock et al was not for "primate freezing", but rather to establish a multiuse primate colony and to carry out some pilot total body washout studies in primates. What Jack did not tell you is that the grant was from the Life Extension Foundation. The Life Extension Foundation has given ALCOR considerably more money than the \$20,000 given to Dr. Bresnock. It is also worth noting that this money was supplied to Dr. Bresnock's company, BioSurg, not to ACS.

Second, ALCOR has had a history of attracting sources of money for research and other objectives. We have done so on the basis of **competence** and history of performance rather than credentials. We think that's what really counts.

## Publicity

Because we are open about neuropreservation we have had some sensationalistic and at times negative coverage. This is hardly new to cryonics. ACS has had their share of negative publicity too, some of it pretty vicious. I enclose a copy of an article from the San Francisco CHRONICLE which was sent to me by an ACS member recently.

We have avoided print publicity in the past because we feel the print media rarely do cryonics justice. It is a complex and subtle idea and it cannot be dealt with well in a 2-column piece by a reporter who could care less if he/she gets the facts straight. ALCOR has focused on media opportunities where we can speak for ourselves, without being unfairly edited or distorted. Consequently we concentrate on radio and TV interviews where we can speak for ourselves and have a chance to respond to criticism.



## Democracy

Jack points out that "...with ALCOR the outgoing board designates the new board" and goes on to say that "Darwin has compared himself to the Pope and said he wants to model ALCOR after the Catholic church."

I am not in the habit of comparing myself to the Pope as I admire neither his office nor what it stands for, nor do I have any desire to emulate him. We have compared our structure to the College of Cardinals of the Roman Catholic church. It is a structure which has in part resulted in the preservation of the church as a functioning entity for nearly 2,000 years. It works by allowing the seasoned leadership to select individuals to replace themselves who have risen through the ranks and who are intimately familiar with the operation of the organization and who are intellectually and ideologically sound. How much do you know about cryonics or ACS? Both ACS and ALCOR are faced with a situation where most of our members are geographically scattered. Most are not interested in being full time cryonicists or even in becoming closely involved in the day-to-day decisions and issues which are involved in running a cryonics organization. As this letter illustrates, the issues are complex and subtle. You would not want to have the chief of the medical staff at a hospital selected by ballots from patients in any political sense! And yet, the ballots are cast, just as they are cast for ALCOR'S leadership. How? By people deciding to join the organization and utilize its services. People who are members of ALCOR (or who go to a physician, or a grocery store for that matter) are free to vote too: with their feet. We do not charge high priced entry fees as ACS does for just this reason. We want people to be able to switch if they feel they should do so.

Jack is certainly right in stating that ALCOR is undemocratic and that we do not select our leadership on the basis of a popularity contest. What we do not want, and will not do, is to subject ALCOR to a public relations contest, where people are selecting "leaders" on the basis of an image or a line of hype. As Jim Yount of ACS recently told me, ACS is not really any more democratic than ALCOR since "we pretty well determine who gets elected to the board." As it is, our board meetings are open to our members and many of our decisions are vigorously discussed by members attending the session with the not infrequent result being a modification or reversal of a proposed course of action.

I would go further still and point out that virtually all successful, growing for-profit or nonprofit corporations are NOT democratic and their boards are not elected by members' votes. Even the government of the United States is NOT democratic in the strict sense, but rather is republican with a lot of selection of successors by responsible and knowledgeable "insiders". It is unfortunate, but true, that most of our government's failures have been in areas where "mutual consensus" decision making is employed, or where selection of a job candidate has degenerated into a public relations contest with generous dollops of mudslinging tossed in.

In summary, ALCOR is not democratic in the sense Jack implies, and we are not the least concerned about it. On the other hand, neither are we a dictatorship as Jack seems to imply. A dictatorship requires the use of force and fraud to **command** obedience from its subjects. ALCOR uses neither of those things. Members pay for services as they get them and are free to

pursue services elsewhere if they choose. We do not have costly initiation fees and we do not engage in misleading, fraudulent or deceptive practices. That hardly makes us a dictatorship.

## Money

ALCOR currently has an excellent dollar to patient ratio. We have more money in our patient care fund per patient than ACS does by a long shot. ALCOR'S totals of "designated" or "anticipated" resources **far exceeds** the \$21 million figure quoted by ACS. More to the point, how does Jack know how much money ALCOR members have allocated for suspension? We have never published figures on this and we do not keep a day by day accounting! We don't normally consider such anticipated resources very meaningful as they can neither be spent nor budgeted. Besides, we sincerely hope they are resources we never receive, since **we** are our members and would far rather never have to deanimate in the first place!

Jack's statement that ACS has so much money "because whole-body preservation ...is more expensive" is meaningless. So what? It also **costs** more! That's like saying we had 21 million dollars in sales last year, and following it up with a footnote: we also had 21 million dollars in expenses. The real question to ask is **how much excess designated funding over anticipated costs** do you have? It doesn't do you any good to sell 3 million widgets if you lose a dollar on each sale!

Roughly half of ALCOR'S members have made arrangements for neuropreservation. Most of these members have provided far over the minimums for this procedure, resulting in a very good capital surplus to liability ratio. We also should point out that Trans Time's Art Quaife has for years argued that the \$80,000 minimum charged by ACS for whole-body suspension is far too low. Art has repeatedly indicated to me and others that he felt a realistic minimum (given current and projected charges by Trans Time) was in the vicinity of \$250,000! Why didn't Jack tell you about that?

## Momentum

ALCOR has led the way in growth, and we have done so without distorting or lying and by being very careful to make a full disclosure of all the facts to the best of our knowledge and ability to do so.

## Objective Analysis

This is absurd. Jack recommends Bob Ettinger and Mae Junod as "people who are well acquainted with ALCOR and ACS and who would have no reason to favor either organization." Ettinger and Junod are officers and directors of rival organizations which have had numerous technical, philosophical, and political differences with ALL the other cryonics organizations in the past (as have ACS and ALCOR). Keep in mind also that Ettinger and Junod for years defended and lent credibility to Bob Nelson, in some cases referring clients to him who were ultimately allowed to thaw and rot in the Chatsworth disaster. Hardly a recommendation for acumen in judging character. Also,

add to this the fact that Ettinger and Junod have never even seen ALCOR's facilities.

Jack recommends Irving Rand and Leonard Ruggiero as having done "an in-depth study of ACS and ALCOR in an attempt to reach a decision as to which organization to promote through the Equitable life insurance network." The fact is that Rand and Ruggiero are insurance agents for the Equitable who are reportedly marketing ACS/Trans Time via a company they have formed called Cryonics Coordinators of America.

As far as objective analysis is concerned, they have told both Saul Kent (President of the Life Extension Foundation) and me that they felt that ALCOR was the better organization in terms of professionalism and technical competence, but that they felt they could better market ACS because of the Ph.D.'s ACS touts. Since they have repeatedly stated that they are primarily interested in making money, such a decision is made a little more comprehensible. However, that does not make it "right," or the best decision for someone interested in staying alive instead of just making money. We would also point out that Rand and Ruggiero reportedly charge a \$1500 fee on top of the ACS fee, and that we have heard that another major factor in their decision was ALCOR'S visible position on neuropreservation, something which ACS appears to be "keeping in the closet" these days.

Finally, their commitment does not appear to be to cryonics, but to the potential money they see in cryonics, as they are not, as far as we know, signed up to be suspended by any cryonics organization. This is sufficient reason to turn them down flat should they ever be interested in promotion for ALCOR.

## Name

Again, Jack is unfair in comparing our conversational name — ALCOR — with his organization's full formal name, the American Cryonics Society. As I'm sure you know, our full name is the ALCOR Life Extension Foundation. When Jack says "What name is more likely to capture the popular imagination, the American Cryonics Society, or ALCOR? Trans Time or Cryovita?" we think he's missing the mark completely.

The founders of ALCOR, Fred and Linda Chamberlain, have explained their selection in a separate monograph which I have enclosed. This narrative holds as much romance, inspiration, and charm as any similar one in cryonics.

Several paragraphs ago, I said of our members' suspension funds, "...we sincerely hope they are resources we never receive, since we are our members and would far rather never have to deanimate in the first place." Our **ultimate** goal is to do everything necessary to sustain the lives of our members, not to freeze them. Suspension is only the current means to that goal. Our organization is named accordingly, for this is why we describe ourselves as a "life extension foundation" rather than a "cryonics society."

Shakespeare's comment on a rose by any other name applies here as well. The changing of an organization's name in itself does not alter the effectiveness or scope of that organization. As to the name "ALCOR," its

meaning will be worth as much as the effort, skill, and professionalism we bring to it.

## Publications

Jack says that "Cryonics magazine is well-printed and has a voluminous amount of information...However, it also has a lot of misinformation. Darwin is a charismatic and convincing propagandist, but you should check under the hood before buying his spiel."

We think the "signal to noise" ratio in CRYONICS is very good. We have a quality publication which we feel keeps our members as fully informed about the pros and cons of cryonics as it is possible to do so. Yes, we do make mistakes, but we promptly catch and correct them as well. Jack's comments here are unjustified. From time to time we have come in contact with media professionals who edit newsletters, and have also seen CRYONICS. They have been uniformly rather startled to find that it is put out with an expenditure of about a week each month by two people. They usually produce smaller publications with a full time staff of 3 to 4!

## Additional Positive Reasons For Considering ALCOR

Aside from the many reasons given above, there are several other reasons why you should give special consideration to switching to ALCOR. The first of these is geography. You are here in the greater Los Angeles area and are thus close not only to sophisticated rescue and stabilization capability, but also to superior perfusion and cool-down facilities.

Secondly, ALCOR has recently made available a new and greatly upgraded type of stabilization and transport service. We now have available a gurney (wheeled stretcher) mounted with a heart-lung machine/membrane oxygenator and heat exchanger. This allows us to directly couple the patient to a heart-lung machine and completely take over and meet his circulatory and respiratory needs while rapidly cooling him. This portable unit represents hundreds of hours of engineering and cost over \$35,000 to fabricate. It has a built-in heart-lung resuscitator (for immediate support) and can cool the average 150 pound man to 40°F in less than 20 minutes. It is one of the few units of its kind in the world. Only a few other major medical centers have this kind of unit, and we believe we can say without hesitation that none of them has a unit of this sophistication and flexibility.

## Summary

Jack's letter is full of outrageous statements and innuendo. It puts the accused in the position of having to answer a question like "Do you deny you beat your wife?" Many of the statements, such as ones about perfusate composition and ALCOR and the Catholic Church are of the nature of tabloid headlines like "PRESIDENT REAGAN DENIES HE HAS AIDS!!!!" or "HEART SURGERY COULD KILL YOU!!!" What is needed is not innuendo, but rather a careful evaluation of the specifics of the issues, a careful weighing of the risks and benefits of a particular course of action or procedure. Jack's letter is almost completely free of that.

Of course, it is up to you to decide which approach you're more comfortable with. All we ask is that you take some time to check us out and really look at the issues as issues. I hope this response has been a help in your understanding.

Best Wishes,  
Mike Darwin

Enclosures:

- Cryofab dewar articles. (Apr & Oct'81 CRYONICS)
- Silicone Heat Exchange Media (July '84 CRYONICS).
- Earthquake Scenario maps - Berkeley and Riverside areas.
- Abstracts of articles in JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY, 92(2), Part 2 (Suppliment) (September, 1986)
- Two Consecutive Suspensions. (Nov'85 CRYONICS)
- Suspension of ALCOR Patient A-1068. (Feb'86 CRYONICS)
- Postmortem Examination of Three Cryonic Suspension Patients. (Sept-Nov'84 CRYONICS)
- San Francisco **CHRONICLE** (June 16, 1986, p47) article on Trans Time.
- ALCOR: The Origin of Our Name. (ALCOR reprint)

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## "Dear Mr. Jarius..." Part II Saul Kent Responds

### Dear Mr. Jarius,

I have a copy of a letter from an **ACS** official to you, in which he makes comparisons between **ACS** and **ALCOR**, in an attempt to convince you not to change your membership from **ACS** to **ALCOR**.

I have decided to write you because I am concerned about the many misstatements and distortions in that letter and want to set the record straight. I will reserve my comments to those issues that I have direct knowledge of.

I am currently President of **The Life Extension Foundation** of Hollywood, Florida, a non-profit, tax-exempt organization devoted to the extension of the human lifespan. I am an **ALCOR** suspension member, a member of **ACS**, and have been active in the cryonics movement for the past 23 years. In 1965 I was one of the founders of the **Cryonics Society Of New York**, the first Cryonics society.

For a number of years, my suspension arrangements were with **ACS**. Several years ago, I switched to **ALCOR**, in large part because of their superior suspension capabilities. The head of the **ALCOR** suspension team is Jerry Leaf, who has far more experience in carrying out suspensions than anyone in the world. Jerry is a highly



**Life Extension  
Foundation  
President  
Saul Kent**

qualified scientist who is a key member of a research team in the Dept. of Thoracic Surgery at UCLA Medical Center. He has been responsible for the training of everyone on both the **ALCOR** and **ACS** suspension teams. Jerry is no longer participating in **ACS** suspensions.

In his letter to you, the **ACS** official list seven people on the **ACS** suspension team in his effort to persuade you to stay with **ACS**. These people are far less qualified to conduct suspensions than Jerry Leaf and have less experience than several other **ALCOR** team members.

The only person mentioned who has skills comparable to Jerry Leaf is Eugene Breznock, a Professor of Veterinary Medicine at the University of California at Davis. However, Breznock has yet to participate in a human suspension.

The first suspension team member mentioned by the **ACS** official in his letter to you is Ward Dean, M.D. Unfortunately, Dr. Dean has no experience in conducting suspensions and has never participated in a Cryonics training session.

In his letter to you, the **ACS** official emphasized the advanced degrees possessed by the **ACS** suspension team members and the lack of such degrees on the part of the leaders of the **ALCOR** team. Although it's admirable to possess advanced degrees, they are certainly no guarantee of competence in Cryonics. In my opinion, the current **ALCOR** team is far more experienced and far more competent to carry out Cryonic suspensions than the current **ACS** team.

The **ACS** official also states that **ACS** is "far ahead" of **ALCOR** in Cryonics research. In my opinion, this is also untrue. I believe that **ALCOR** currently has the best Cryonics research program in the world, which brings me to my final point, the question of the ability of the respective organizations to obtain research grants.

I am an authority on that subject because I, my partner William Faloon (also an **ALCOR** suspension member), and our organization (**The Life Extension Foundation**) have been offering financial support to both **ALCOR** and **ACS**.

In the last few years, we have given (and continue to give) a great deal more money to **ALCOR** than to **ACS** because of our great admiration for the many scientific and organizational achievements of **ALCOR** and **Cryovita Laboratories** (of which Jerry Leaf is President).

In the letter by the **ACS** official, there is no mention of the fact that we have donated large amounts of money to **ALCOR**. The only mention of one of our grants (which is not attributed to us) is of a \$20,000 grant we awarded recently to Dr. Breznock to set up a primate colony at his laboratory in Winters, California. That grant was not given to **ACS** and is to be used for aging research as well as for Cryonics research.

In recent years, I have been recommending **ALCOR** as the best Cryonics organization in the world. After reading the letter sent to you by the **ACS** official, I feel even more strongly that **ALCOR** is superior to **ACS**.

I, therefore, strongly recommend that you sign up with **ALCOR** and that you support them in every way possible.

Sincerely,  
Saul Kent, President  
**The Life Extension Foundation**

\* \* \* \* \*

**APRIL 1987 MEETING CALENDAR**

ALCOR meetings are usually held on the first Sunday of the month. Guests are welcome. Unless otherwise noted, meetings start at 1:00 PM. For meeting directions, or if you get lost, call ALCOR at (714) 736-1703 and page the technician on call.



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The APRIL meeting will be at the new ALCOR/Cryovita facility:

(SUN, .5 APR 1987)

ALCOR/Cryovita Laboratories  
12327 Doherty St.  
Riverside, CA 92503

**DIRECTIONS:** Take the Riverside Freeway (State Hwy 91) east toward Riverside. Go through Corona, and get off at the McKinley St. exit. Go right (south) on McKinley. Turn left (east) on Magnolia. Go across the railroad tracks and turn left (north) on Buchanan St. Doherty is the second street on the left. Turn left on Doherty, and then turn right into the back of the industrial park. 12327 is the third building from the back, on the right.

\* \* \* \* \*

**"Optimism: A cheerful frame of mind that enables a tea kettle to sing though in hot water up to its nose."**

**--Anonymous**

**Alcor Life Extension Foundation  
12327 Doherty St.  
Riverside, CA 92503**

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