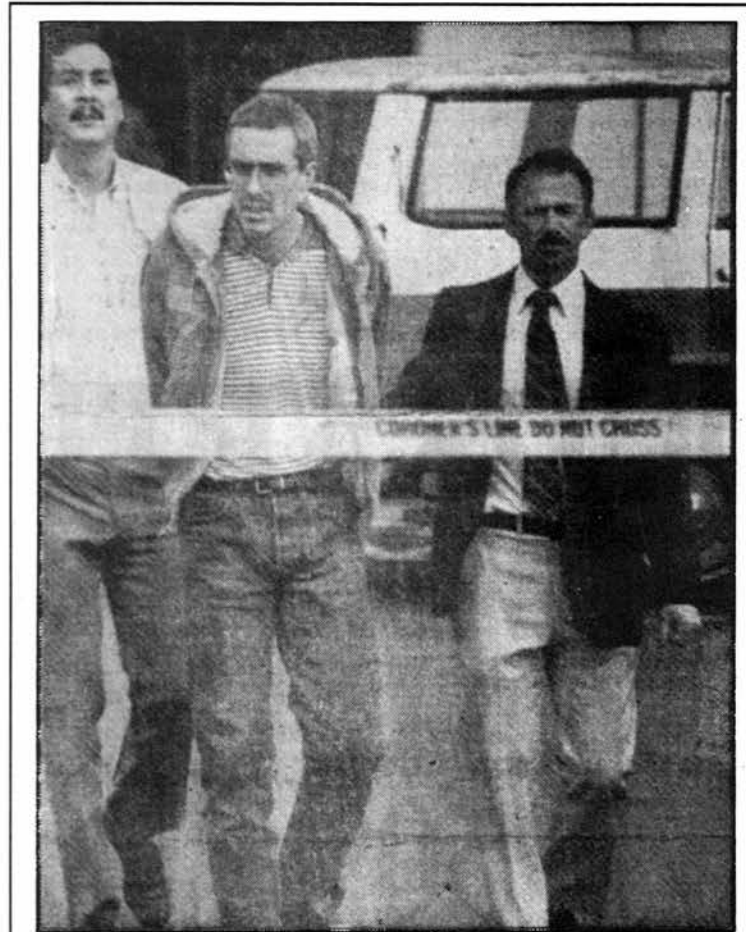


Cryonics

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Volume 13(10)
October, 1992



Associated Press

Michael G. Darwin is taken in for questioning

4 questioned, facility searched where body parts are frozen

RIVERSIDE (AP) — Authorities held four people for questioning Thursday as they searched a cryonics facility where a woman's head was cut off in a controversial

terminus if Dora Kent, 83, who was terminally ill, was clinically dead when her head was cut off and frozen in hopes that she could some day be brought back with

San Jose Mercury News, 1-8-1988

Looking Back at the Dora Kent Saga
Part II of "Our Finest Hours"
by Michael Perry

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Cryonics

Volume 13(10)

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Issue to press: September 14, 1992.

Cover: Mike Darwin being apprehended by dedicated public protectors.

It's Almost Turkey Time

Once again, the annual pot-luck cryonics Turkey Roast is approaching. And as usual, attendance is *mandatory*. This year's event will be in Beverly Hills, California, at 10106 Sunbrook Drive. There will be no business conducted at this meeting, except for the business of catching up on news with friends you haven't seen since last year. The party begins at 1:00 p.m. on Sunday, December 6, with no designated quitting time.

Directions are as follows: Take the 405 freeway to Sunset Blvd., East on Sunset, left on Benedict Canyon (just before the Beverly Hills Hotel), right on Angelo Drive, then right onto Sunbrook Drive. Be careful that you stay on Angelo Drive (and not, for instance, Angelo Circle) all the way to Sunbrook Drive. Sunbrook Drive is a cul-de-sac, so most visitors will probably have to park on Angelo near the entrance to Sunbrook.

Let me just take a moment to thank Saul Kent and Jo Ann Martin for hosting the Turkey Roast for the past few years. Also, my sincere apologies for the ambiguous message in last month's issue, which stated that the Turkey Roast would probably not be at Saul and Jo Ann's place *without stating why, and without my having notified them first*. This illustrious example of *Open Mouth, Insert Foot* was entirely my fault; I should have gone on to explain that another member had offered to host the event, but was reluctant to release his address sooner than was necessary. Saul and Jo Ann's efforts and hospitality have been of the highest imaginable quality, and I regret this faux pas.

Cryonet Digest

A couple of months ago, in the brief *Up Front* piece, "Why Haven't We Seen You On The Net," I described how simple it is to become involved in the ever-on-going discussions of cryonics-related topics via *electronic mail*. For some, though, it remains impractical to become directly involved in this forum, whether because buying a computer is not in the budget or because keeping up-to-date on the Cryonet is too labor-intensive.

At long last, however, there is a simple way for cryonicists to follow the major threads of discussion on the Cryonet *without* getting "on line" — without even

having a computer! Charles Platt is now publishing *Cryonet Digest*, a compilation of the most interesting, information-rich exchanges happening on "the Net."

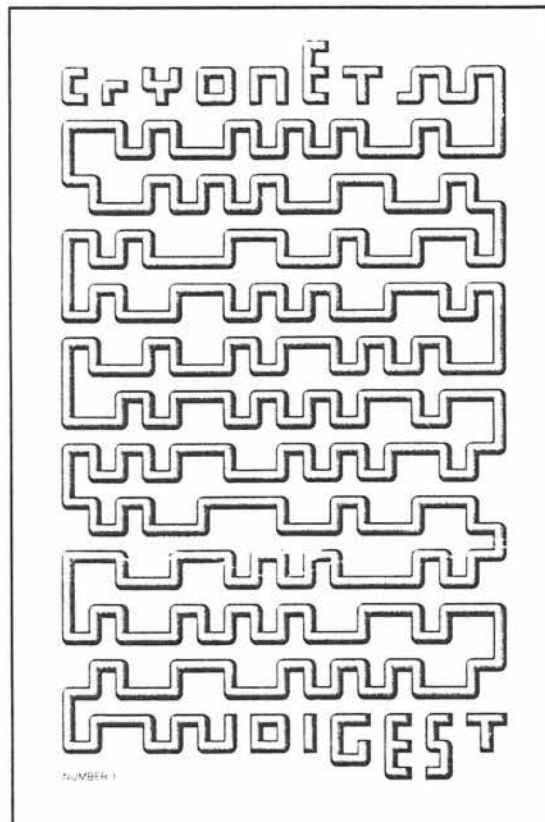
A four-issue subscription (the issues are intended to come out roughly eight times per year) costs \$7, and an eight-issue subscription is \$12. Send check or money order made out to "Charles Platt" (or even cash) to Charles Platt, 9 Patchin Place, New York, NY 10011. If you're Compuserve compatible, you can contact Charles at 71042,3557, and those on the Internet can reach Charles at charles@mindvox.phantom.com.

Computer System Upgrade!

The Winds of Change are indeed blowing at Alcor. In the two years that I've been on the scene, Wordstar has had its deathgrip on every terminal in sight, strangling the fun, creativity, and economy out of every word-processing project I engaged in. Formatting a document for legal purposes — and most other purposes — could be a nightmare of printing and re-printing, with characters refusing to go where you put them, words that wouldn't word-wrap, and two basic point sizes: big and small. And oh, did you want hardcopy that looks like what's on the screen? *Better get your camera out.* (Don't even think about multiple fonts, chart-making capabilities, comparing documents real-time, or — *gasp!* — using italics and boldface for the same word.)

To make matters worse, we were working almost exclusively with a creeping, crawling, 286 technology. You want to send a lengthy document to the printer? No problem. Just press "P" for print, then go to lunch, call your folks, play 18 holes. . . . The options were few, the delays many, and printouts matched the screen appearance in text-content only. *The typewriter beckoned.*

But all of that is changing. With the copious assistance of volunteer Scott Herman, and the Board of Directors' approval of his system upgrade proposal, Alcor is moving from a user-hostile to a user-friendly network interface. We now have two new 386 machines, one of which is



being used by Derek Ryan for the huge amounts of paperwork he deals with, the other being used by Joe Hovey to manage his database (8000+ names and addresses, plus all of the accounting information). Both of them spend virtually all of their time (or is it "all of their virtual time?") at their computers, so this is certain to make them much more productive (not to mention happier).

What's more, four of us (Derek, Joe, Mike Perry, and myself) can now operate under the Windows user interface. For Derek and I, who are completely mystified by DOS, this is like finding an interpreter in a room full of Yiddish politicians. Suddenly it all *makes sense*, and getting results is an inspiring challenge rather than a subtle form of torture.

And having Windows of course means using Word For Windows — instead of Wordstar — as a word processor. I won't even try to explain the advance in options, appearance, and overall user sanity this represents, except to draw some vague analogy between this and the advent of those four funny round things that your car rests on.

Rumor has it that, finances permitting, we may someday enter Phase II of the upgrade, which will include a 486, 50MHz

processor to replace our current file-server. This will represent a dramatic, overall increase in processing speed for everyone in the facility, if and when it occurs. Cost precludes it at present, but the payoff in system usability and staff productivity is sure to make it a sound investment, once cash-flow permits it.

New Pet Suspension Contract

As most of you know, Alcor offers cryonic suspension for the pets of Alcor Suspension Members. A little-advertised fact is that we now have *eleven* of our members' pets in suspension. In fact, Saturday, July 29 saw the neurosuspension of Dagny, the cat of Alcor members Theresa Stanley and Mark Miller. The November issue of *Cryonics* will cover Dagny's suspension in detail.

When the suspension of Dagny was approaching, it became clear that the existing contract for the suspension of members' pets was inadequate. This has since been amended, and a new *Companion*

Animal Cryonic Suspension Agreement is now available. Any animal lovers out there who would like a free copy of this agreement can call or write to request one. Please keep in mind that this is a membership service for Alcor Suspension Members only.

Since life insurance is usually not an option for funding animal suspensions, cost can be a serious issue. Hence, we do everything we can to keep the cost of suspending members' pets *low*. If you want a specific quote, call with the breed, weight, and height at the shoulder of your cat or dog. Here, though, are some helpful "ballpark" parameters: The cost of perfusing and neurosuspending a cat is roughly \$1400. The cost of neurosuspending a cat *without* perfusion (in other words, "straight-freezing") is roughly \$600. Whole body suspension of a cat (with perfusion) will be at least \$3000, and whole body suspension of a dog (with perfusion) can range from \$3000 for *very* small dogs to as much as \$30,000 for very large dogs. (Clearly, the savings are significant when perfusion is omitted, but of course this

means *absolutely no* cryoprotection for the brain, something we refuse to even offer for human suspensions.)

There are any number of variations on the theme, so again please call if you're considering this, and we'll come up with figures specific to your pet.

Meeting in Philadelphia!

The newly formed Alcor Pennsylvania group will be holding its second meeting on Sunday, October 25 at 2 pm. There will be discussion of activities related to forming an Alcor Pennsylvania Chapter, election of officers, refreshments, and a beautiful setting.

The meeting will take place at the home of Ralph Pandolfi, 1054 Standish Dr., Turnersville, NJ 08012, Phone: 609-228-0176. Call Ralph to receive a map, or for directions by phone. Don't miss this crucial opportunity to take part in the formation of a new chapter and increase the number of cryonicists and the quality of cryonic suspensions in your area!

Letters to the Editor

Dear Editor:

I would like to publicly thank Jerry Searcy for making a monthly commitment to financially help Alcor. I felt that his letter also helped remind the rest of us that there is more we could be doing.

Angalee Shepherd
Indianapolis, IN

Dear Sir,

The response to PICS (Perpetual Immortalist Contact Sheet), my lonely hearts for immortalists organisation, has been poor so far. However this has hardly been surprising because I have nothing to offer until I can show that I can get women to reply. Therefore I have taken out some advertising, to appear for three months in the autumn, in *Omni's Longevity* magazine, and also a syndicate of women's magazines that take advertising for the *Best by Mail* columns.

People who have responded so far have been sent a special offer in which they can join up and payment (£60 or \$100) is deferred until there are at least 20

members in the system. If there is an imbalance of the sexes, this number will be modified in clients' favour. The price per member has to be high to support a realistic advertising campaign.

If any other readers of *Cryonics* would like to take up this offer, then please write in to PICS, Westowan, Truro, Cornwall TR4 8AX, England.

I am still convinced that PICS will benefit both its members and the cryonics movement as a whole, which is why I have taken this extraordinary step. I call upon all those readers who are single and would like a partner to support PICS. You are the type of people who want to direct your own destiny through cryonics, therefore direct your own destiny through choice of partner. PICS gives you listings of about 100 words/person. You choose.

Send for details now. You have nothing to lose.

Sincerely,
John de Rivaz

Dear Ralph:

I got to see the HBO documentary

Never say Die: The Pursuit of Eternal Youth. What a hatchet job! The director, Anthony Thomas, went out of his way to portray immortality in the worst possible light. I was especially offended when he juxtaposed the segment about Alcor with the one about the "Eternal Flame" cult in Scottsdale, AZ, with its doctrine that wishful thinking can overcome death. That is like comparing space travel with astral projection, or television with clairvoyance.

Thomas' biases are especially evident near the end when he shows Dr. Greg Fahy saying that, with control over aging, we could possibly live for 200,000 years before misadventures do us in. (Well, that's a reasonable start.) The narrator [Thomas] then suggests that a society of such long-lived people would be stagnant, for there would be no more Beethovens, Michelangelos, and the like. Thomas completely ignores the possibility that we could engage in boundless expansion and self-transformation (to coin a couple of phrases) as means of self-renewal.

However, I found an unintended irony in the final segment where the extended French family, speaking through interpreters, reacts to the various anti-aging activities shown in the documentary. Thomas

intended them to represent a "healthy" attitude toward aging and death, but I thought: *Those* are the stagnant people, despite the fact that their membership gets "turned over" through death! They are stuck in an ancient way of life, mouthing the same platitudes from one generation to the next, not showing any willingness or ability to entertain new ideas, and on top of that, speaking a language which is becoming increasingly marginal as English takes over global communications. How could a society of immortal transhumans be more static than that?

So deep are Thomas' prejudices, however, that the irony was lost on him.

Long life,
Mark Plus
Wrightwood, CA

Dear Ralph:

After reading Joe Hovey's nice tribute to Scott Herman (Alcor's volunteer computer consultant), I must agree that anyone who volunteers to set up and maintain a PC-based network deserves special thanks. However, I recently saw a memo from Scott proposing to upgrade Alcor's computers, and this troubles me quite a bit, because it raises broader financial issues.

First of all, my own credentials: I teach computer courses on PCs and Macs, I have been a programmer, I have written five computer books, and my job requires me to remain up-to-date on computer hardware. I have also set up several small customized computer systems.

In my experience, most people do not make objective, dispassionate decisions about computers. At one extreme is the technophobe who prefers not to be computer literate. At the other extreme is the technophile who sees hardware not in terms of its utility but as an end in itself. Scott's memo, which advises installing 386's with VGA color monitors as terminals, and a 50 MHz 486 with 256k cache and 8 megs of RAM as a file server, seems to place him near the technophile end of the spectrum.

As I understand it, Alcor's computer use basically consists of word processing, accountancy, and database operations, none of which involves very large numbers. I would like to know in what way the existing 286 machines are inadequate to deal with these very simple tasks. I would especially like to know why VGA color monitors are necessary. And if Scott sug-

gests it would be nice to have them running Windows, I would like to know why this point-and-click operating system is needed in a workplace where just about everyone is already computer literate and quite capable of dealing with plain old MS-DOS.

Personally, I love gadgets. I buy gadgets that I don't need because gadgets are fun. However, I don't buy them unless I have money to spare. Where Alcor is concerned, this is not the case. Alcor has been sustaining itself by gradually eating into various bequests, and by soliciting donations. It seems a little odd, to me, to ask people to give money to Alcor so that the staff can do word processing in 256 colors.

I realize that it is demoralizing and depressing to be stuck with old equipment in a building that isn't big enough. I realize that since cryonics is such a vast concept, it seems to deserve better, and the people working for it deserve better, too. But the fact is, cryonics is small and struggling, and when Scott says it's time for Alcor to move "into the twenty-first century" this seems like hyperbole which has little to do with reality.

Scott also implies that if the computer network is not upgraded, there will be catastrophic loss of data, which he values around \$750,000. Presumably, the existing file server has a tape backup system; in which case, how can significant data loss occur? If there is no tape backup, this omission can be corrected for around \$400, maybe less.

Scott also complains that existing equipment has not been maintained and is subject to breakdowns. So, why not maintain it? This usually means swapping in a new board or a new drive, nothing more.

Alcor has extended itself over the past year or two, hiring additional staff, contemplating a move to a larger building that would have entailed great expense and disruption, and now wanting to purchase suspension equipment from Cryovita. There has not been a proportional increase in income to support these goals. Indeed, at the July board meeting, Carlos was forced to ask for access to a lump of money that had not been touched before.

Grim as it is to feel trapped in a thrifty, penny-pinching ethos, I can't help feeling that this is the only sound way to proceed, at least until some real cash flow is generated.

One last point: before doing any kind of network upgrade, it might be a good idea to make sure that all the staff know how to use the existing system. Last time I

was at Alcor, I couldn't find anyone who really understood the network, including Mike Perry, who is a computer scientist. Details like this seem somewhat more important to me than the theoretical capabilities of new hardware.

Best wishes,
Charles Platt

See the Up Front piece in this issue, Computer System Upgrade!, for a brief explanation of why I believe (very fervently!) that this is money well-spent. Perhaps some people — especially computer teachers and textbook authors — can be vastly productive using "plain old MS-DOS," but I am not one of them. (And neither is the rest of the staff, with one or two possible exceptions.) The lack of understanding of the network that Charles describes is for just that reason: sit me down in front of a DOS prompt and you will not be impressed — unless I type "WIN," and the Windows interface magically appears. (In which case you still may not be impressed, but at least I'll get something done.) — Ed.

Editor:

My previous letters to *Cryonics* concerned capitalism vs. communism and socialism and the impact of the arguments on the desired corporate structure — namely for-profit rather than non-profit (my remarks arose from experience in forming and building several corporations, including a \$400 million NYSE firm). Here I want at least to recommend a structural change in the current non-profit status of Alcor which would bring it closer to that of a for-profit corporation.

Most of the non-profit corporations that I know allow their full membership to vote on all matters which stockholders do in a for-profit corporation — especially the Board of Directors. Contrary to what the proponents of the current self-perpetuating Board of Alcor believe, my experience (including that with a non-profit I formed) indicates long-term smooth operations.

The current self-perpetuating Alcor Board is not motivated to listen to its most informed members, so I recommend that the Board change the By-laws (and the Articles, if necessary) to establish membership vote on election and removal of Board members. Because of Alcor's rapid growth and the lack of knowledge of newer members, I recommend that the voting power

begin on the second anniversary of the day the member is accepted.

Bob Krueger
Los Angeles, CA

Dear *Cryonics*,

I was so shocked by Carlos' latest tirade against the Patient Care Trust Fund Advisory Committee and Endowment Fund Advisory Committee on Cryonet that I did some research. How could a group

with over 315 members in seven different countries be led by someone who is so obviously unqualified for the job? Normally such a disaster would only be possible in a small cult where it would be easy for a leader to concentrate power. The answer is that seven out of Alcor's nine board members either live in California or run a business in California. Alcor's board is concentrated enough in location to be influenced in the same way that a small cult would be. No wonder there is a campaign by the board to remove the two Alcor board members who aren't currently

linked to California.

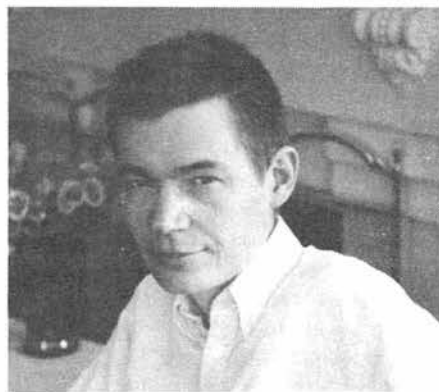
Perhaps its time to reimplement Alcor's original bylaws which did NOT have board members electing other board members. I received a copy of the bylaws in a memo by Fred Chamberlain, one of Alcor's founders, dated 7/25/92. I would be glad to send them to interested parties.

Sincerely,
Eric Klien
8124 Bridlepath Way
Las Vegas, NV 89128
(702) 255-1355

For the Record

Our Finest Hours: Notes On the Dora Kent Crisis Part II of III

Michael Perry



Dec. 17. Carlos called early morning. Arthur was in some kind of a jam somewhere with his car — what he mainly needed was money to pay for repairs, I gather. So Hugh went out after him, and I went back to the lab (forgetting some clothes & other items that will cause inconvenience). Mike was at the lab when I got there, sick with the flu, and stayed the night. Hugh didn't get in until after I'd gone to sleep.

Daylight: Jerry Leaf was there in the morning, answering phone calls, and telling me he'd not let the patient be destroyed if they demanded her (her head of course, that is). We have legal recourse, and noninvasive testing methods, etc. Saul Kent came over a little later. No word from Coroner by 12:30 so [our mortician] was contacted. He had talked to the C. who said they would not be finished until late tomorrow. Then another call came in, that the C. wanted a copy of the death certificate — to be used in making out a new certificate. Jerry & Saul went over & were gone several hrs. Jerry spent about 1 1/2 hrs. talking to the coroner, he said afterward, who seems interested in the idea of

cryonics & said it might be worth presenting at a coroners' meeting. Also, we learned that the coroner is coming out tomorrow to take depositions from those of us who witnessed the death, after which the matter is to be resolved — so they say.

Dec. 18. Scott Greene flew out this morning. Jerry Leaf was here as he has been for several days now. Mike, Hugh, I and the others waited all morning. The Coroner never showed up. Saul Kent was over the afternoon, while Scott left. (Jerry said of the Coroner & his crew that if they couldn't keep their side of the bargain, "f--k 'em.") Saul & Jerry were talking about some sensitive matters relating to contingency plans for the patient, and Mike said to me, "why don't you disappear for awhile." I asked if he wanted me to leave the facility altogether but he said no. So I went to the crew room, shut the door, tried to read, fell into a sleep that lasted an hour. I dreamed that Saul was asking if I wanted a certain job of sorting out thousands of silver dollars, and I said sure, if they were real silver (not the more recent clad issues). When I woke up I could hear Mike, Saul and Jerry plainly discussing,

among other things, the fact that some of Alcor's assets are in gold. I came out & the talk was on less sensitive subjects — I was not asked again to disappear. (Mike also apologized later for his generally strung out condition caused by this whole ordeal.)

Evening: We got word that a gross autopsy examination had been performed on the body & it is in our favor but a final decision will not be reached until Monday [the 21st] probably if not later. Jerry says the chance[s] it will go our way (and the Coroner will not ask for Dora) are "99.5%" and Steve Harris later echoed this optimism when Mike called.

Dave Pizer called this evening. Mike cautioned me to emphasize the need for confidentiality, which I did, when I outlined briefly what has been going on here. Dave wants me to make plane reservations to fly back from San Francisco to Ontario Airport Jan. 9. We will leave for northern California on the 6th, visit with ACS people and the Winters institute and perhaps do an interview.

Later: Mike wants to get Dora down to LN₂ temperature by Sunday "so we

don't get caught with our ass hanging in the breeze" — that is — so she can be moved quickly in case her safety is threatened. (The Coroner promised not to ask for the head to be autopsied unless the cause of death cannot be determined otherwise. We, of course, will seek legal means to halt any removal from suspension that may be demanded.) Even Mike, however, is showing optimism, though very guardedly.

One analogy he used was to compare us to a lobster. "Come on, we need you to go from your big pond into this smaller pond, but everything will be all right. True, the smaller pond will start to get a little warm but don't worry, your difficulties will all be over soon," etc. The Coroner has been "understanding" up to now and may be so in the future but we don't know for sure.

The Coroner was reportedly impressed when he came out here on Wednesday (the 16th), saying we had a better facility than his own and that what we were doing is right.

Dec. 19 (Saturday). Up till 4:30 a.m. reading book on the *Titanic, The Night Lives On*. Daylight, finished reading the book, a good one. Mike is going to do Christmas shopping today & try to work toward a more normal existence again, he says. (He didn't show up at the lab today.)

Hugh put one more bucket of LN₂ into the A-9000 with our patient to bring the total to 3. Temperature was around 180 as midnight approached.

Dec. 20 (Sunday). Temperature continued to fall today, down to about 190 by midnight. Mike emptied a bucket of LN₂ onto the top of the TA60.

Dec. 21 (Monday). Early. Patient moved out of the facility — took us till 4 a.m. Morning: Tired, stayed in bed until about 11. Jerry Leaf here from 8 a.m. on. No call from the Coroner. [Our mortician] came over around 1 driving a shiny black Cadillac hearse. Mike showed him around the facility. Other than that, things are moving slowly. The Coroner's office is having their Christmas party today.

Dec. 22. The Coroner & his deputy were over this afternoon. They have found "pneumonia" as the cause of death as we maintained. They said they have been tied up in meetings for days over this, and recommended we try to arrange cryonic suspensions under the Uniform Anatomical Gift Act.

Dec. 23. Mike was in a cheery mood for awhile.

Press Enterprise called evening. They

6 held in cryogenics raid

7 frozen human heads reportedly found at lab

Associated Press

RIVERSIDE — Authorities held and then released six people Thursday during the search of a cryogenics lab where a woman's head was cut off and frozen in a controversial procedure last month.

Officials arrived at the Alcor Life Extension Foundation with a search warrant about 5 p.m. Chief Deputy Coroner Scott Hill said authorities would release no statement until today. He said nobody had been arrested yet.

Authorities announced last month they were trying to determine if 83-year-old Dora Kent, who was terminally ill, was clinically dead when her head was cut off

and frozen in hopes that she could someday be brought back to life with a new body.

Authorities said the woman's son, Saul Kent, 48, a member of Alcor, chose to have her head frozen because she had severe arthritis and he hoped that someday the rest of her body could be replaced.

Alcor, which freezes people who die in the hope they can be revived later when cures to their fatal ailments are found, reportedly had seven frozen human heads and one body on the premises.

Alcor attorney Christopher Leanders said one of the detained persons was Michael Darwin, identified as president of the foundation.

Leanders said Alcor had been cooperating with authorities since the incident last month.

"They jumped the gun," he said of Thursday's search.

Long Beach Press-Telegram, 1/8/1988

are doing an article on us. Mike says it will "go out nationwide." Hugh created some further consternation because, through his direction, Mrs. Kent's severed hands were not given over to be cremated along with the rest of her body. [The hands had originally been intended for analysis in a perfusion study, but in the controversy this project was abandoned.] Some frantic phone calls followed — one to [our mortician] and one to Jerry Leaf. We don't know what we'll do with the hands. I saw Mike sitting morosely on a stool, head in (his own) hands, all cheer evaporated, situation normal again.

Hugh left for Long Beach, Mike for home finally, and I had the facility to myself — me and the patients, that is.

Dec. 24. Was called morning by a reporter from [a] radio news station. The *Press-Enterprise* article has "hit the fan" evidently, though I hadn't had a chance to see it yet at that point. I gave them some basic information such as that Alcor charges \$100K for whole-body freezing and \$35K for head-only, but declined to comment on the Kent affair. Jerry Leaf arrived, then left for the holidays. More reporters called later. Mike came over afternoon. Place had to be spruced up at near light-speed, papers shoved into drawers, floors swept, etc. Some reporters showed up unannounced at 2:30 and Mike, then in tennies and jeans, made them wait an hour. Then the interview began. Saul Kent came over and was interviewed, and gave a spirited and reasoned defense of this whole matter, I thought.

Then we started getting reports of how the media is treating us. Horrible. We starved Mrs. Kent 6 days before cutting off her head, according to one version. I watched reports at 10 and 11 p.m. "... A bizarre story from Riverside ..." Mike did a good job defending us, considering, and Saul came across well, but we were bludgeoned unmercifully.

Dec. 25. I was foaming at the mouth over this, when everybody else had gone. We should have frozen Mrs. Kent years ago! Cutting off the head and freezing it solid is a lot less severe penalty than what nature often has in store: consider such brutal atrocities as organic brain syndrome, Alzheimer's disease or Huntington's chorea. Come to think of it, any form of death is a sacrifice of brain cells, isn't it? Except when followed by cryonic suspension.

Again I spent the night alone here while Hugh was in Long Beach. He showed up around 10:30, enough time for me to get to a Christmas party. A good party, good food and all, but I was too burned out to really get into it — having had only 4 hrs sleep. This was because I went to bed late (3) and was called by a worried Thomas Donaldson next morning around 7. He had been reading the newspapers. I referred him to Hugh, gave him the Long Beach number, and he was reassured, I was told later.

Dec. 26. Evening — Arthur & Carlos came over, bringing back most of the stuff that was taken away on the 15th, including my diary [minus the last few days, natural-

ly]. Arthur agreed "the cat is out of the bag" on Dora Kent so I can admit she was brought into the facility, and commit other facts to writing which I will be doing retroactively.

Dec. 27. A gratefully uneventful day. Picked up mail at my P.O. box — a letter from [a non-cryonicist friend]. Says he "couldn't stomach" what I had to say in my Dec. 12 letter on cooling the patient but "at least you like it."

Dec. 28. Supposedly Bogan, the deputy coroner assigned to us, is saying criminal charges could still be filed based on the fact that we are using cardiac arrest rather than brain death as the criterion for death. This is an utter absurdity!

Dec. 29. [T]he day not too eventful. Ran some copies of materials for information requests, monitored nitrogen levels in the patients' dewars, etc. Things are in a state of tension again.

Dec. 30. Steve Harris is to be interviewed by the coroner's office, I understand. The matter may take a long time to resolve, and we don't know the outcome, so we are back to pins and needles.

There was a closed meeting of the Alcor Board of Directors here at the facility (with Saul Kent, who is not a Board member, also in attendance). The purpose was to decide what to do about Dora Kent, in view of the latest developments with the coroner. [She was brought back into the facility a few days ago, about the 23rd, when things seemed safe.] Mike asked me to leave during this meeting, which started at 7:30 p.m., mainly because, he said, legal counsel advised it for my own protection. I said I wasn't much

worried about personal danger. Mike smiled and said, "Oh yeah? Then I have a job for you — just say you did it" — meaning I caused the death of Dora Kent. I said, "Okay, I'll go to prison for ten years, we'll learn a lot about the prime numbers, and Alcor can get on with its work." This caused some merriment.

Anyway, I left just before the meeting started. At one point I was in Walden Bookstore, and saw a book entitled "Coroner" and another, "Coroner at Large" by none other than Thomas T. Noguchi, former coroner of Los Angeles County, something that did not improve my peace of mind. It also struck me how trapped in mysticism, confusion and ignorance the public is, judging by the books they read, and it certainly poses a threat to those of us seeking liberation from mortality.

Tried to call the facility around 10, only got the answering service. Tried again around eleven, Mike answered, "Come home, Mike," so I did.

Dec. 31. Dora Kent was moved out of the facility for the second time around 2 a.m. For about 10 days she (her head that is, of course) has been in a dewar that rests inside a blue-painted plywood box.

Read a letter from [a respected cryobiologist] to Cupido, the Chief Deputy Coroner and the one who is now handling the Kent case. It was a good, positive endorsement of cryonics, while requesting confidentiality.

Daylight. Steve Harris was grilled for an hour or 2 by 2 deputy coroners and someone from the California Medical Association. He fielded the questions well and gave a favorable image of cryonics

and Alcor. Mike was rather more optimistic after talking to him, though he sounded worried at first.

Worked some on music, was doing this as the last seconds of 1987 ticked away.

Jan. 1, 1988. Up till nearly 4, to complete all chores. Awake again about 10:30.

A noisy cricket upstairs has been driving me up the wall for some time. It is lodged in the woodwork, under the floorboards, and is impossible to access. Neither Hugh nor I really want to poison it, which is the only way to get it out.

New Years' was not too eventful, considering, which is good. Listened to Mike & Steve Harris's conversation of yesterday, where Steve says he may get reprimanded "because I signed the damn death certificate."

Jan. 2. Mike had a big tale to tell about a hot springs pool he went to yesterday. Several others [there too]. One of them started talking about freezing mice in liquid nitrogen, then about the Dora Kent case, using much street language. "They cut this f---n' b---h's head off and froze it, and she paid 'em to do it — no it was her son who paid 'em, and she was still alive," and so on. Mike kept a straight face through it all & didn't say much, fearing it would spoil the evening.

Jan. 3. Worked the day on *Venturist Voice* [a newsletter promoting cryonics], finally getting [masters] printed up around 8 [p.m.] I believe. But I still had to paste on the illustrations. Worked at illustrations till midnight, except for chores.

Jan. 4. Up till nearly 8 a.m. but finished the illos, all but the cover page. Slept about 1 hr., awakened by fierce leg cramps. Stood flat footed on the floor to make them subside. By then I was wide awake. At Pro Printing photocopied a halftone and had them trim it for a cover design. Took completed masters of VV to PIP Printing; they say they'll have it done by Wednesday.

Mike talked to the deputy coroner Bogan today, and was told that criminal charges "cannot be ruled out." We may all be called to testify. Jerry Leaf called later to ask if I was willing to give permission to have my name & phone # given to the Coroner's office. I gave permission. Jerry then talked to Hugh who also gave permission, I think.

At a later discussion Mike, Hugh and I were upstairs talking about possible impending events. I reiterated that I wasn't afraid of any personal danger, if we are charged with a crime. Mike & Hugh cau-

Riverside coroner says he might drop probe if he can check head

By TONY SAAVEDRA
Sun Staff Writer

RIVERSIDE — County Coroner Raymond Carrillo said Tuesday he might be willing to drop the investigation into Dora Kent's death if allowed to perform an autopsy on her frozen head to rule out "bullet holes" or other obvious causes of death.

"She may have died from natural causes, but I'm not going to say that without the head," Carrillo said. "If we don't find anything wrong with the head, we may be inclined to go with natural death."

He added it may be impossible to determine whether the 83-year-old woman was still alive when the procedure was begun to cut off and freeze her head at a

Riverside cryonics laboratory in the hope that she could be restored to life someday.

The head later disappeared from the Alcor Life Extension Foundation laboratory. Officials there obtained a temporary court order protecting the head from autopsy if it is located.

Carrillo shook off charges by Alcor leaders that he mounted a "vicious smear campaign" against the center, and that his investigators had little training and less supervision.

"I have a resolve to do my duty regardless of who gets stepped on," Carrillo said. "Our biggest mistake was not taking the head right off the bat."

Kent's head was preserved in liquid nitrogen at the behest of

her son, Saul Kent, one of the founders of the movement to freeze bodies and heads in the hope that someday science can restore them to life.

Meanwhile, Alcor members are worried that equipment and chemicals seized by authorities will hamper the center's ability to serve the 98 people now signed up to be "cryonically suspended" upon death.

"I'm praying that nobody in our organization dies right now," said Arthur McCombs, a 32-year-old Alcor volunteer. "What kind of interference would we get from (the investigators)?"

Saul Kent concurred. "People in cryonics don't want to be frozen, they consider it the second most terrible thing that can happen to them." The first is dying without being frozen."

The Sun, 1/20/1988

tioned being noncommittal if questioned and it seemed the best approach.

Also talked to Dave Pizer — he is coming on Wednesday [the 6th] not Tuesday as I had thought.

Jan. 5. Mike, in talking to [an Alcor member in Canada], read an inspiring defense of his & Alcor's position that he said he would run in *Cryonics* this month unless forbidden from doing so by Jerry or the Board. Among other things it expressed the view that the end of Alcor and cryonics would be "a death sentence."

Called Dave again today; he says he'll be out here about 2 p.m. tomorrow.

Jan. 6 [Wednesday]. Dave Pizer showed up. We went down to PIP and picked up *Venturist Voice* (200 copies). A long bull session evening, Mike favoring printing an article saying "we're right, they're wrong," Dave favoring a more conciliatory approach.

Jan. 7. We were to leave for northern California today (Dave & I). Before that could happen, disaster struck. A bunch of deputy coroners and other officers barged in with a search warrant and started confiscating things. They wanted the head of Dora Kent, they said in no uncertain terms, and they planned to autopsy it. Thankfully, it wasn't here. Before they realized that, they told a number of us that we could leave (without insisting that we had to). We did, Dave & I in particular, going out

for lunch. Before I left I talked to one of the deputies, Regan Schmalz I believe was his name, about the possibility of doing nondestructive testing on the head, and he said come back at 2 when I could talk to the pathologist who would be in charge of the case.

When we came back, though, everything was in turmoil. The reason, it developed, was that they had failed to find the head they were counting on so much to thaw out and dissect. Mike was put in handcuffs first, then Hugh, then Dave Pizer, and (not as one to be left out of the picture) finally, me. I was also questioned rather sternly by two deputies, Bogan and Kunzman, about the whereabouts of the head and a videotape, on which I of course knew nothing, except that they obviously hadn't found them at the facility. From them I learned, rather by way of a threat, that they had seized my "notes" or in other words the diary. I escaped them by saying, "I've been advised not to comment unless I have counsel present."

We were detained at the police station several hours and questioned, along with Arthur and Carlos, who also had managed to get themselves detained. (Carlos got in some good licks through the press who showed up, though, I heard.) At one point shortly before I was fingerprinted one of the station employees asked if, when we came back in new bodies after our heads

were frozen, we would have the same fingerprints. I said I thought we would, which was a cause of amusement. Eventually, though, we were all released, the rumor being that our attorney was doing what he could.

So we went back and had dinner at Pietro's, all but Mike, that is, who was taken back to the facility. Our relief was short-lived however, a frantic call from Mike reporting that "they're pulling the patients out of the dewars for identification" and something about a nitrogen burn, and for Hugh to come at once. Hugh, Arthur and Carlos took off, while Dave and I stayed behind. Dave made panicky calls to two news stations to report that patients were being taken out of suspension, then we heard that that wasn't happening, and Dave called one of the stations back to retract his earlier claim. (The other one, he said, didn't seem to understand what he was saying anyway.)

So we went back to the facility. Mike and Hugh were there, with Rick Bogan and a photographer. Mike and Hugh were lifting up the neurocans briefly to allow photographing of the name plates, I believe. No basic harm done to the patients, this time. We were reminded by the coroner's people again, before they left, that they still wanted the head.

To be continued. . .

Future Tech

Report From the Nanotechnology Front or, Exploring Cat Anatomy with a Boulder

Arel Lucas (filling in for Keith Henson)

Keith is once again over his ears in the hardware and software of cryonics, so this is a guest column — a belated report on the July 11, 1992 "Foresight Institute Briefing" entitled "Introduction to Nanotechnology." Held at the Stern Center in Palo Alto, this conference gathered leading lights from all over the country, including the MIT Nanotechnology Study Group, but the speakers at this first public forum were local, including Eric Drexler, who had just returned from Washington where he

briefed two government groups on nanotechnology. He was in the throes of the final touches to his book due out later this fall.

The book, by the way, will appear first in the format known as "trade," a large paperback book of a size popular for college texts, which will greatly lessen the cost of purchase. Filled with mathematical and chemical formulae, technical drawings and an impressive glossary and bibliography, *Nanosystems: Molecular Machin-*

ery, Manufacturing and Computation is nonetheless actually readable by someone who has only a rudimentary knowledge of mathematics, physics and chemistry. I know that because I helped proofread it, as those who worked with me on a certain standby in June are aware (when I returned the manuscript to Eric, I hastened to assure him that a brown stain on the Xerox copy was *not* blood — most likely chocolate or coffee). The manuscript accompanied me everywhere for a month as I attempted (and no doubt failed) to check all the grammar, continuity, sense and follow-through in a complex network of forward and backward references. After that, I really appreciated the enormous amount of work that both Eric and his engineer wife and miracle-worker, Chris Peterson, put into the large volume of words Foresight delivers. Next, says Eric, is a book on applications of nanotechnology.

Oh, yes, back to the future. The first speaker was Eric, and even at the early

hour he drew laughs with his images of the future, and wry view of the present. His picture of a 21st-century run on 20th-century garbage did indeed evoke the end of the first *Back to the Future* movie, with "Doc" (Christopher Lloyd) emptying garbage into his modified DeLorean to propel it into the sequel. "A larger population, at a better standard of resources, supported by sunlight on roads and 20th-century garbage." Eric reminded us that one great 20th-century environmental problem is that, as a society, we are "addicted to building structures out of polymerized sugar." *The New York Times*, he said, "delivers vast quantities of polymerized sugar. . . polymerized sugar, and we want it." He compared molecular manufacturing, now in the design phase, to the internal combustion engine, the electric light, and the nuclear bomb in its impact on human life, and enumerated the next steps in its development: molecular position probes, atomic-force microscope precision antibody fragments used as graspers.

Which leads to another bit of Drexler humor: his exposition of present atomic probe microscopy's approach to exploring a molecule, described as though it were happening to his cat. First, he said, you nail the cat's feet to the floor (the molecule must be affixed to a surface, else it will squidge out of the way of the probe). Then you take (here he added appropriate wide-armed, bouncing gestures) a large boulder with which you sequentially squash the cat from one end to the other (the atomic probe is repeatedly pushed into the molecule). Eric said he could imagine the sound his cat would make if treated in this manner. His cat, he affirmed, "wouldn't put up with it at all."

Alternatively, he pointed out that one laboratory has succeeded in attaching antibody fragments to a surface, which suggests the possibility of a precision holder (which he illustrated with the overhead viewer) which would grasp the molecule to be examined. Then a specially designed molecular tip array would be utilized for more precise probing.

Eric's original predictions are on course, by the way. He still expects systems of hundreds of moving (atomic) parts five years after the first moving part. Since atoms were first moved around in August 1991, it is expected that molecular manipulation might occur somewhere between 1992 and 1995. Between 1995 and 1997 we might see use and improvement of

molecular tools, then (1997-2005) secondary general tools, with possible broad manufacturing capability around 2005. While Eric gave Japan's investment in its governmental technology arm (MITI) as an example of current sponsorship of research and development, a later presentation by Neil Jacobstein (vice president of technology, and general manager of the Knowledge Systems Division of Cimflex

Since atoms were first moved around in August 1991, it is expected that molecular manipulation might occur somewhere between 1992 and 1995.

Teknowledge) outlined other current and possible funding for this technology.

From the most practical and current standpoint, Eric and future speakers pointed out that short-term research investment will lead to a growing impact on resources prices, environmental policy, international relationships and military strategy. Some of the spin-offs will lead to products, and the results of that are neatly summarized in the title of the presentation by Kathleen Shatter, executive director of the Institute for Molecular Manufacturing, "Bootstrapping a Research Institute for Nanotechnology." Nanotechnology could indeed be "bootstrapped" from small laboratories to self-perpetuating corporations, by the utilization of early products put to work to build later ones, avoiding large-scale costs before there are large-scale payoffs.

Eric's emphasis for present policy, also reinforced by later speakers, was on the need for international cooperation in the development of nanotechnology — partly to prevent the "reinvention of the wheel" syndrome which can plague technological advance, but also to prevent the development of international instability due to military advantage.

Related to this issue, Jim Bennett (James C., formerly of American Rocket), now president of a new Foresight spin-off, the Center for Constitutional Issues in Technology, pointed out that governmental policy typically does not evolve until bureaucratic faces are pushed onto the xerox glass. In "Policy Issues in Nanotechnology: Which Will Emerge First?" Jim reiterated that in the long term molecular manufacturing can provide "equitable access to future resources," and that how government reacts can affect this access. Fortunately, since the government, in the

form of its various civil and military arms, will most likely not react until there is a product (and then only its "most proximate agency"), this slow reaction time will afford scope to set standards of molecular manufacturing through a study of the emergence of standards in other fields ("nanometrics"). Solving problems like this may help to ward off government interference in the growth of molecular manufacturing, and thus the stable and equitable spread of resource access.

A timetable presented by Ralph Merkle, of the Computational Nanotechnology Project, Xerox Palo Alto Research Center, did not differ from Eric's,

but Ralph arrived at his figures by different means. He analyzed the number of atoms used for one "bit" of computation power, and discovered that, according to a curve following the development of computers from the invention of electronic computers through the present, mathematical projection indicates that number will equal one sometime between 2010 and 2020 (remember Eric's assessment that broad molecular manufacturing capabilities might be available by 2015). I've been urging both Ralph and Eric, who have been working together on molecular design, to include a videotape of their designs as a special offering with the new book, designs which now exclude broad internal computational powers, opting instead for broadcast capabilities from an external computer which would control a molecular machine inside, say, a contained manufacturing facility or perhaps even a human body.

Ted Kaehler truncated his presentation on his computer library of molecular "brackets" to report on a possible breakthrough in protein-based protoassemblers scheduled to be announced in the August *Science*. Reported at the early summer Artificial Life Conference, the current process uses what evolutionary biologist Richard Dawkins (who is not involved with the invention) called a "designoid" forced-evolution process to build proteins. Similar to a past, intervention-heavy system using messenger RNA in a mechanical pathway, this modified batch-process technology uses body temperature in a stand-alone test tube to cleave RNA, requiring human intervention only at an estimated point at which usable product might exist. Such a process, Kaehler pointed out, "could be self financing" (here's that bootstrapping again) "like microelectronic

devices since 1955," and could provide a biological pathway to protein synthesis. He pointed out that six companies have been spawned or inspired to exploit the process already for pharmaceutical purposes: Gilead, Ixsys, Nexagen, Osiris, Selectide and the Torrey Pines Institute.

A more technical presentation was made by Marcus Krummenacker, a research associate at the Institute for Molecular Manufacturing, reporting on the Institute's work on "Molecular Building Blocks." He discussed the necessary characteristics of molecular building block skeletons — their reaction time, reaction geometry, and water compatibility — pointing out that sturdy rigid "cages" would be needed, along with enough functional sites, as well as ease of synthesis and (I like this word) "decoration." Ralph Merkle spoke further to the "decoration" issue, particularly with regard to the modification of diamond structure as substrate, pointing out what I told Ralph I would term the "peanut-butter" problem caused by removing hydrogen to make a reactive surface. For a moment, Ralph was not reactive himself; then it took: of course, as I mimicked a small child asking how to get peanut butter off a finger, then placed my finger in my mouth, speaking less distinctly as I asked "How do you get peanut butter off the woof of your mouf?"

Marc Stiegler, President, Institute for Molecular Manufacturing, and General Manager, Information Systems Business Unit for Autodesk, Inc., gave a rousing demonstration of the uses of Amix, a computerized information exchange which allows sale and licensing of products and services without massive advertising, investment and development, by the posting

of queries, needs and contracts simultaneously with resumé, goods and services offered. Using the experience of a member of the audience in asking for and receiving a fix for a software problem, Marc made it clear how such a service can evolve into a product for sale, and even more powerful, how products and services which would otherwise be too expensive to bring to market can be presented to the public at minimum cost and price (like Marc's beautiful story, "The Gentle Seduction," offered for sale at \$2 via Amix).

Neil Jacobstein (already mentioned above), Ed Niehaus and Kathleen Shatter all dealt with the packaging and funding of molecular manufacturing. Niehaus volunteers his services to the Foresight Institute, and talked about "Emerging Public Perceptions of Nanotechnology," including strategies for enlarging the percentage of the public with an accurate understanding of molecular manufacturing. He pointed out that the earlier "trickle-down" path which Foresight has been taking is slowly changing to presentations to more general audiences (as witness the announcement of the "First General Conference on Nanotechnology" scheduled for this November). Shatter emphasized the multidisciplinary nature of the Institute for Molecular Manufacturing, and elucidated the purposes of this group, currently focusing on research.

The last three speakers gave highly personal and moving accounts of their involvement in nanotechnology, starting with Chris Peterson's revealing account of "Evolution of the Concept." In preparing for her presentation, Chris said she realized that the roots of the concept reached far beyond the years she and Eric shared at

MIT — back to Greece, forward through the development of atomic and quantum theory. She disclosed some of her role in the evolution of Eric's thought — bringing home early articles on microelectronics, for instance; and showed how MIT's changes in the way engineering was taught helped lead to a synthesis between two streams of thought: molecular manufacturing and space manufacturing, both of which were objects of Eric's study in the spring of 1977.

Gayle Pergamit, co-author with Chris and Eric of *Unbounding the Future*, was, as usual, rewarded by laughter at her tongue-in-cheek assertions — this time that society moves with "no abrupt changes in trends," explaining that "that's why the whole world is communist now." Her story of a Steve Martin-style (*Housesitters*) romantic who realizes that diamonds are not forever, and thinks ahead so far he gives his beloved title to the city dump as a 21st-century resource was told in aid of her point that futurist thinkers must stay tuned sufficiently to present times to make that major difference that small teams can make.

Finally there was Foresight administrator Jamie Dinkelacker's moving appeal to act with foresight because what scares him most is that we might do nothing, and allow technology that is "too serious to play with" to "blindly evolve." Think, he pleaded, about where you fit in the developing drama of these momentous changes. I leave you with that thought and the address of the Foresight Institute, Box 61058, Palo Alto, CA 94306 (Fax 415-948-5649, phone 415-324-2490).

Immortalist Philosophy

Personal Continuity, Death, and Cryonics: 2

Max More



In the first installment of this series (*Cryonics* #144, July 1992), I defined and

explicated physicalism, reductionism, non-reductionism, and the physical and

psychological criteria for reductionism. I briefly gave an argument in favor of

psychological reductionism — the view that the identity or continuity of a person is nothing more than psychological continuity. Building on this, I will develop the psychological reductionist criterion and apply it to methods of reviving a patient from biostasis. This will lead to a suggested universal conception of death based on a notion of informational continuity. This month's material will be familiar to many of you, but needs to be laid out before moving on to less familiar ideas.

A person is psychologically continuous if, over the course of an arbitrary time period, enough psychological connections are maintained. Psychological connections may be memories, dispositions, intentions, and values. If enough connections are maintained over the time period, we can say that the person-stages are *strongly* psychologically connected. A person continues to exist as the very same person (in the logical not the qualitative sense of identity) if and only if there exists a chain of strong psychological connections, so we can say that there is psychological continuity.

How many psychological connections must exist over, say, a day for a person to exhibit strong connectedness and continuity? No precise answer can be given. We can arbitrarily postulate that for sufficient continuity, 50% of the usual number of psychological connections persisting over a day must be maintained. Such a postulation is useful, but only so long as we realize that we could set that figure at 40% or 60% or 82.7%. Continuity is a matter of degree. If only 1% of your normal degree of connectedness persisted over a day, we would certainly conclude that you had ceased to exist; if connectedness were 99% of normal, we would certainly believe you had survived the day. As the number moves toward the middle of the range, the situation becomes fuzzy, and leaves us with some discretion in deciding whether we think we would live or die. Fully developing a psychological reductionist account is further complicated by the fact that not all psychological connections are equally important to our continuity as the same person. Suppose that tomorrow I am hit by a car, suffering a head injury that causes me to permanently lose my sense of smell. This would be a minor reduction in my psychological connectedness, certainly not enough for anyone to believe that the old me had been

replaced by a different person, since I have a poor sense of smell, and my life is very weakly affected by my olfactory capacities. For a wine taster or a perfume tester, the impact on connectedness would be much greater.

Suppose, instead, that the head injury caused me to suddenly and completely lose my Extropian values, so that the person then associated with my current body instead valued conformity over independence, security over liberty, faith over reason, pessimism over optimism, statism over spontaneous social order, and primitivism over civilization, technology, and boundless expansion. In this second case, I do not believe that the later person would be sufficiently psychologically connected with me-now to count as logically the same person. This psychological discontinuity would be of sufficient magnitude that I would have perished and been replaced by a new person, though he would inhabit the same body.

If this change happened over a period of time due to normal events and not due to brain injury, this conclusion need not follow. There are many difficult intermediate cases, such as radical personality transformations induced or contributed to by psychological manipulation, trauma, drugs, senility, and brain tumors. Since these complications are irrelevant to my current purpose, I will ignore them.

If psychological continuity is the essence of personal continuity and survival, what does this tell us about acceptable methods of revival from biostasis? To begin with, it reassures us that the standard scenario for revival from suspension does indeed preserve identity; the person who is revived is the same person as the one who was suspended (assuming that the brain was effectively preserved in the first place). The patient survives the process even if most of the material composing their brain is replaced, so long as brain function is not altered. Since psychological continuity is what matters, organelles (cell components), cells, and cell assemblies can be replaced without detracting from personal continuity. The mere fact of a temporary break in conscious awareness doesn't disrupt psychological connections, and so should be of no more concern than a period of dreamless sleep.

More radical repair and revival scenarios can also be seen, on the psychological reductionist account, to preserve

continuity. If the structure of the body and brain were scanned and recorded in sufficient detail, and a new body then constructed, free of the ravages of age (while the old body is disposed of), the person would have survived since it's not the matter constituting the body that makes us who we are, but the personality it embodies. Because of this, we might scan the brain structure of the patient, upload the personality into an appropriately configured non-biological neural network, and dispose of the damaged and vulnerable biological body.

The psychological reductionist view, at the level I've explained it, does not resolve the question of personal survival in situations where we recreate a brain (or upload a person) while *also* restoring the (qualitatively) identical personality in the original body. My own view is that we cannot say that either of the two later individuals is literally (logically) identical with the original person. However, we can say that the original person survives or continues in both of the later individuals since there is an unbroken (though splitting) chain of psychological connectedness. Supporting my view (which is highly controversial even among cryonicists) requires more discussion than I have room for here, and would sidetrack me from the line of thought being developed.

I fear that this month's installment will have been boringly familiar to many of you. However, this discussion will help newer cryonicists get up to speed on the subject, and lays the groundwork for the fresher discussion to follow. I can now explain different types of continuity that might be thought essential to continued existence, and argue in favor of one of them. I will then apply the result to criticizing cardio-respiratory, whole-brain and neocortical criteria for the occurrence of death, and will develop an alternative, universally valid conception of death. The value of this investigation lies in its potential to shift the cultural and, eventually, legal views of death and so alleviating their currently destructive influence on people's choices regarding death and its avoidance.

Lovecraft, Scientific Horror, Alienation, and Cryonics

Steven B. Harris

The oldest and strongest emotion of mankind is fear, and the oldest and strongest kind of fear is fear of the unknown.

— H.P. Lovecraft

Introduction: Scientific Horror in Fiction

Stories of resurrection — particularly the resurrection of a mythic hero — are very old and powerful (see *Cryonics* Sept. 1988), and particularly powerful in kind is the element of horror generated by such stories when the resurrection goes wrong. As a society, we live with the mythos of vampires, walking mummies, and endless legions of George Romero's staggering and shuffling undead. With the scientific revolution, the basic element of horror in non-religious resurrection stories has also been alloyed with a newer technological theme, a fusion beginning when Mary Shelley first introduced the idea of scientific resurrection into fiction in 1818. Cryonics is the lineal descendant of this later tradition.

Mary Shelley's vision of the technological raising of the dead was based on 18th century demonstrations that "galvanism" (as electrical stimulation was then called) could in some circumstances make isolated body parts move in a lifelike way. Galvanism could even assist in the resuscitation of apparently dead people (see *Cryonics* Sept. 1990 for a brief history of resuscitation technology). In *Frankenstein*, Shelley does not specify what scientific technique is used to animate the monster, but in an 1831 introduction to the novel she tells us that galvanism had been the topic of conversation among her circle of literary friends, a few hours before she herself had a nightmare vision of a reanimated monster one rainy Swiss night late in 1816.

Shelley tells us that she had made a pact with her friends to try to think of a ghost story, but the story she produced instead from that fateful agreement was not one of supernatural haunting, but instead the first tale of the hubris, and the punishment, of the modern *scientist* in seeking to banish death with materialistic means. "Frightful it must be," writes Shelley of

the monster in the introduction, "for supremely frightful would be the effect of any human endeavor to mock the stupendous mechanism of the Creator of the world." The subtitle of *Frankenstein* is *A Modern Prometheus*, and Shelley's meaning is clear enough. Prometheus in myth pays a heavy price for bringing the technological power of the gods to man.

It took a bit of time for Shelley's vision to penetrate fictional accounts of revivals or resuscitations from the dead, and especially early-on, one may find contrasting views. Edgar Allan Poe's 1845 story, "Some Words With A Mummy," featuring the revival of an ancient mummy by means of galvanism, is a tongue-in-cheek social commentary which is most concerned with puncturing and satirizing the conceits of Poe's own time; at the same time, however (if only for artistic consistency) the story cannot help but hold out hope that rational scientific progress in the art of reanimation will one day lead to good. In the story, Poe's ancient Egyptians had perfected suspended animation, and used it to travel rapidly through time at pleasure, as tourists and revisionist historians. As such the tale may be the first piece of fiction to treat forward time travel and scientific resurrection in a

positive light.

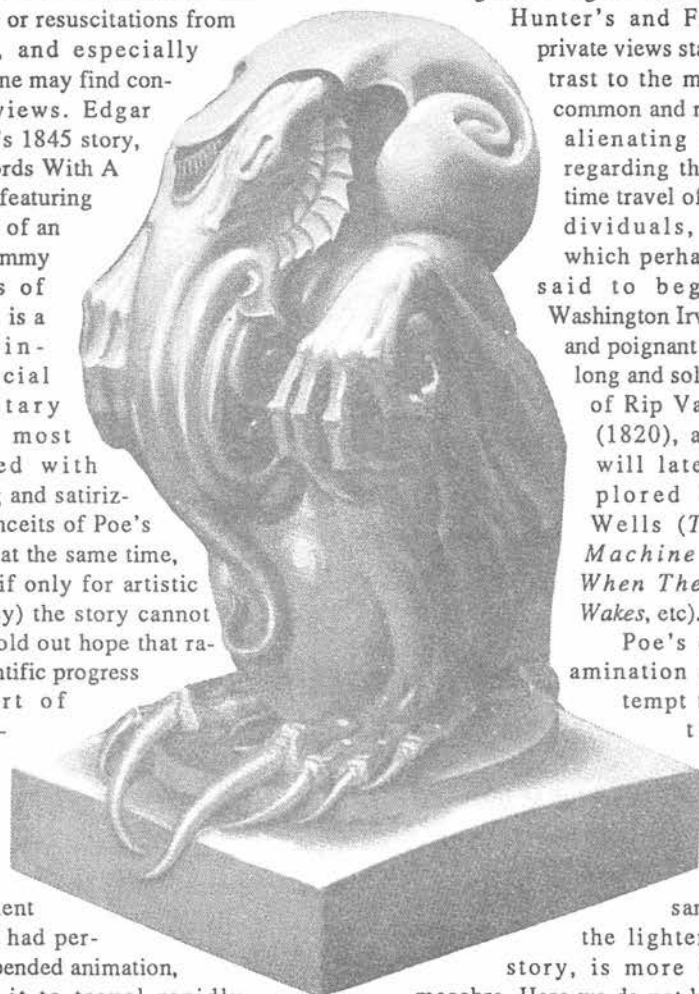
Some words with a Mummy echoes the earlier pre-Shelley optimism of Benjamin Franklin's views on the subject (For Franklin's oft-quoted letter to Jacques DuBorg, see Drexler's *Engines of Creation*; also *Cryonics*, Jan., 1991, p. 10). Readers will remember that Franklin wishes in a 1773 letter to be preservatively embalmed "with a few friends" in order to see what becomes of the United States in the far future. Franklin thus is not only one of the first men (along with Dr. John Hunter — see *Cryonics*, Nov. 1990, p.12) to speculate about the marvels of seeing the future using biostasis, but also he is the first to foresee that such a journey will inevitably inspire a person to want to take some of his/her social milieu along with. The question of the loneliness of the time traveler is one that is destined to come up

again and again. Poe's story and Hunter's and Franklin's

private views stand in contrast to the much more common and much more alienating tradition regarding the forward time travel of *single* individuals, a genre which perhaps can be said to begin with Washington Irving's dark and poignant tale of the long and solitary sleep of Rip Van Winkle (1820), and which will later be explored by H.G. Wells (*The Time Machine* (1895), *When The Sleeper Wakes*, etc).

Poe's other examination of an attempt to bypass the immediate effects of death, written at the same time as

the lighter mummy story, is more typically macabre. Here we do not have resurrection, but we do have a sort of suspension, if not a cryonic one. In "The Facts in the Case of M. Valdemar" (1845) a Frenchman named Valdemar dies while



under a deep hypnotic trance. So deep is the trance that, although heartbeat and breathing have stopped, Valdemar's tongue is able to obey commands to speak. ("I was sleeping, but now I am dead," he states in one of the most famous lines in the literature of horror.) For seven months the state of suspended animation continues in Poe's tale, with the dead body (save for the horribly moving tongue) locked in rigor mortis, but basically unchanged. Finally, at the end of the story, the experimenters unwisely decide to end the trance, and the *monsieur* Valdemar turns in a few seconds into a "nearly liquid" mass of putridity.

In the long-delayed and unnaturally rapid decay of Poe's released hypnotic subject, we recognize the traditional denouement of staked vampires, those other mythic escapees of ordinary mortality. As in H. Rider Haggard's *She*, Oscar Wilde's *Portrait of Dorian Grey* and James Hilton's *Lost Horizon*, slowing or arrest of nature's aging or dying process in fiction often runs up a sort of cosmic credit card bill which may later become due all at once, with dire consequences. Such tales suggest a cultural psychological heritage which views death and decay as inevitable forces which, like some bottled-up natural flow, are apt to produce explosive and terrible results if held in abeyance even temporarily.

To be sure, this kind of direct debt does not accrue to the original monster in Shelley, which does not age. In Frankenstein, rather, the price which the monster pays for its artificial life is social ostracism (it is horribly ugly). An intelligent fellow with exquisite feelings in Shelley's original tale, the monster also suffers neglect and abandonment by its only "parent" — its creator. (Shelley herself had only one parent, a father, who was distant). Following Shelley, then, *alienation* is the other price which fictional scientifically resurrected figures have inevitably paid. It is the prospect of alienation, first cousin to the prospect of immortality, which seems to have been tugging diffidently at the always brilliant Ben Franklin when he first considered suspended animation more than two centuries ago. It is a theme to which we will return.

Long after Shelley and Poe, the terrors of mal-resurrection haunted the American consciousness in stories such as W. W. Jacobs' story, "The Monkey's Paw" (1902). Still later, but still long before Stephen King's, *Pet Semetary*, the

Frankenstein theme was taken up yet again by an American who was Poe's literary heir, the early 20th century fantasist, H.P. Lovecraft. Lovecraft himself probably had more than a little to do with the idea that we now know as "cryonics," and he is a figure that may be of some interest to cryonicists. We will turn to Lovecraft and a few of his views for the remainder of the essay.



A miniature of Mary Shelley
by Reginald Easton
(copyright Bodleian Library Oxford)

H.P. Lovecraft

Howard Phillips Lovecraft was born in 1890 in Providence, Rhode Island, and seems to have spent a large part of his life regretting bitterly that he had not been born instead into an earlier, more classical age. Lovecraft's family had once been prominent, but the fortune was nearly gone when Lovecraft's father died, and the Lovecrafts were forced by the death into a more spartan existence. Always a sickly child, young Howard missed so much school that he failed a high school diploma for lack of credits. Nevertheless, he had succeeded in educating himself somewhere in that time, and had discovered early a talent at writing. For the rest of his relatively short life he managed to make a meager living editing and ghostwriting stories for others, and only in his thirties did he attempt to sell fiction on his own.

Even then his output was limited to horror tales which he sold at low rates to pulp magazines.

A brooding and perhaps over-mothered child, Lovecraft never seemed well fitted for the life of an adult, although biographies record that he did make one valiant try at it. When his mother died in 1920, Lovecraft went away to New York, there romanced and married an older woman (a Jewish baker and entrepreneur), and tried to settle down. He was unable to find work, however, and finally, after two years of being supported by his wife, in desperation fled back to Providence to the home of two elderly maiden aunts, who took him in. Although his wife wanted to follow him, the Aunts reportedly would have nothing to do with the scandalous idea of wife supporting husband, and Lovecraft (for his part) insisted on staying where he was. This meant the effective end of the marriage, and (from all that is known) of Lovecraft's love life as well. He resided with one or both of his aunts, comfortable with his strange writing and relative poverty, until his untimely death of colon cancer and kidney disease in 1937.

If the outward details of Lovecraft's life are not very interesting, it is possibly because Lovecraft himself was not really interested in his life so much as in his dreams and his fantasies. He seems to have had only two interests: horror fiction and correspondence. During his last 16 years he wrote and published almost all of the 50 or so stories on which his fame rests, but during that time he was little known outside of a small readership. During this time he also cultivated many literary friendships, writing perhaps 10 million words of letters in his lifetime and corresponding with up to 100 people at a time (like Thomas Jefferson, Lovecraft seems to have been the sort of person who today becomes a computer bulletin board addict). After Lovecraft's death his memory was kept alive by a small number of devoted fans who continued to write stories using his fantasy worlds as background, and two of these loyal followers eventually founded a publishing company (Arkham House, Sauk City, WI) whose express purpose was to keep Lovecraft's work in print. In this they succeeded ("Truly it is better to have friends than critics," comments Brian Aldiss of Arkham House). Eventually, and posthumously, Lovecraft won the literary reputation that was denied him in life.

There are, of course, a few genuine and valid *literary* reasons why Lovecraft has come to be ranked with Poe as a master of the horror tale. Although Lovecraft's stories probe the supernatural, the extraterrestrial, and the fantastic, in life the author was a thoroughgoing atheist, materialist, and rationalist, and this lack of supernatural belief seems to have provided him with an objectivity and a detachment which served him well as a story-teller.

Lovecraft was also a master of narrative, having perfected a literary device (foreshadowed in Poe), in which a supernatural, intelligent, and cool-headed narrator reports what he sees and hears in such a way that the reader cannot but eventually begin to feel (with a certain sense of horrified dramatic irony) that the narrator is in the presence of supernatural things which he himself does not want to acknowledge. This kind of "reverse-sell" in Lovecraft becomes an enormously effective technique.

Finally, although his prose could be overblown, Lovecraft nevertheless knew how to describe his scenes with enough vagueness as to suggest and evoke personal nightmare-images from the mind of the reader. In this, he is reminiscent of the

early days of radio and the "theater of the mind." In many cases, the result is that things left unsaid or hinted at in Lovecraft, are more effective and powerful than things which are described more fully by less talented authors.

Like Tolkien with his Middle Earth, Lovecraft eventually developed an entire interlocking fantasy world. In Lovecraft's universe, horrific beings inhabit deep space, the depths of the sea, and the dimensions that we cannot directly sense. Science, in Lovecraft's mythos, is the squeak of a mouse in a house full of cats, and his stories are very often dark fantasies about penetrating the thin barriers that separate the familiar world from an inimical universe, bringing doom upon the insignificant race of man. In Lovecraft, hideous Elder Gods and Elder Races strain to drag the Earth back into their dimensions or dominions, or else wait patiently for when the stars are right, so they may rise again from their sunken tombs in cyclopean temples beneath the sea. In Lovecraft, the universe is a much larger place than is seen or suspected by most humans, and the news about the part that we do not apprehend is nearly all bad.

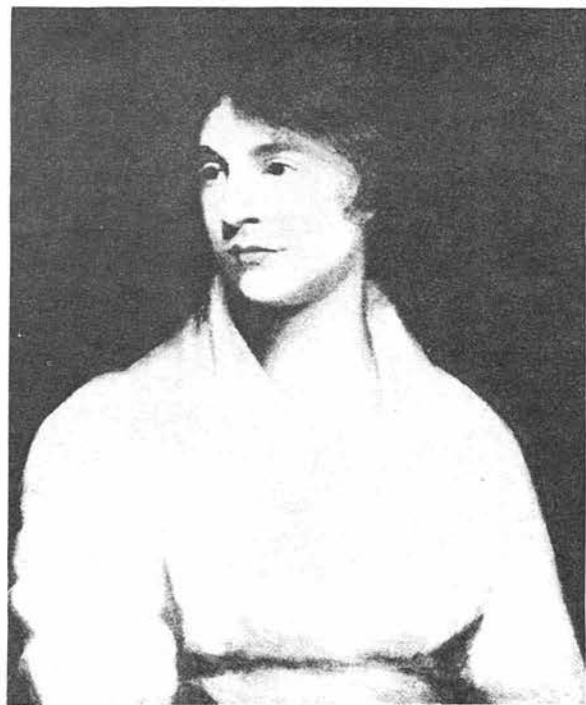
Lovecraft's materialistic leanings led him early to explore Shelley's idea of the evils of scientific resurrection, and in fact his first professional sale was a series of loosely interlocking short chronicles of the adventures of one "Herbert West, Reanimator," (1922) which tell of a young medical student named West, who believes that very fresh corpses might be revived by chemical means. Artistically the "reanimator" stories have

Lovecraft and Mal-resurrection

severe technical flaws and Lovecraft later became embarrassed by them and tried to bury them, but in a metaphorical way they seem since to have taken on a life of their own, and have returned from the literary grave in several anthologies (I have discussed the strange literary and popular power of resurrection stories in previous essays). With considerable irony considering how much he hated them, the only Lovecraft work to make it to the movie screen so far with any fidelity, is this set of stories, which have been adapted into a pair of movies (*The Reanimator* and a sequel, *Bride of Reanimator*).

The details of the "Reanimator" stories will not concern us here — suffice to say that they are straight Frankenstein stories, and reanimation never does anyone any good, for Lovecraft carefully never lets his reanimated corpses have what it takes to be human: if intact, the corpses are insane; if rational and intelligent, they are horribly mutilated. The stories are of interest to the scientific immortalist in that Lovecraft's materialism is more fully developed and refined than Shelley's, and his discussion of "death" is a fairly modern statement of the condition in terms of being a medical and scientific problem. He is even careful to pay special attention to the brain as the most vulnerable organ in the process:

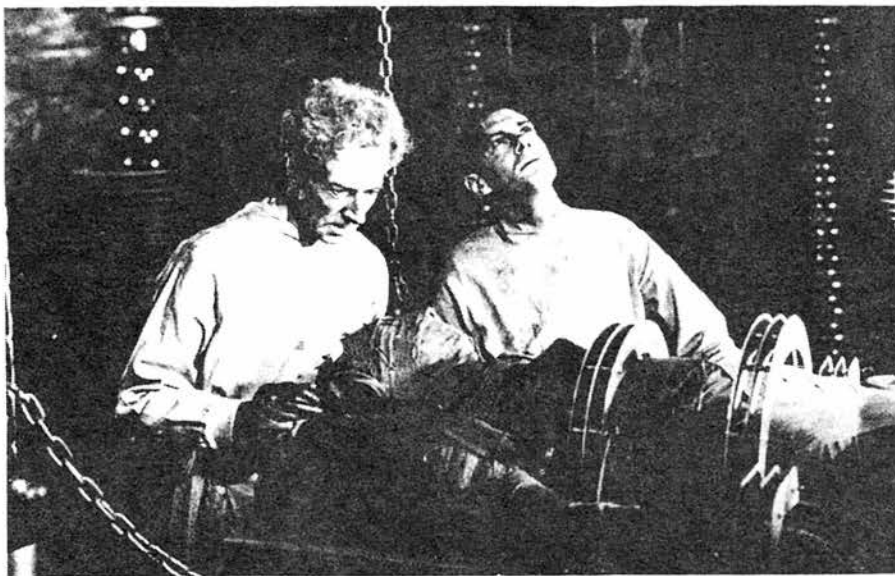
"I had always been tolerant of West's



Portrait of Mary Wollstonecraft by J. Opie
(Courtesy, National Portrait Gallery, London)



H. P. Lovecraft
(Photo courtesy of Arkham House)



Bride of Frankenstein (1935)

pursuits [writes the narrator], and we frequently discussed his theories, whose ramifications and corollaries were almost infinite. Holding with Haeckel that all life is a chemical and physical process, and that the so-called "soul" is a myth, my friend believed that artificial reanimation of the dead can depend only on the condition of the tissues; and that unless actual decomposition has set in, a corpse fully equipped with organs may with suitable measures be set going again in the peculiar fashion known as life. That the psychic or intellectual life might be impaired by the slight deterioration of sensitive brain cells which even a short period of death would be apt to cause, West fully realized. [...] He then sought extreme freshness in his

specimens, injecting his solutions into the blood immediately after the extinction of life. It was this circumstance which made the professors so carelessly skeptical, for they felt that true death had not occurred in any case. They did not stop to view the matter closely and reasoningly."

Here we have young Dr. West confronting the Aristotelians of his day: An organism must be either alive or dead. If an organism is dead, it is dead; and if it can be brought back to life, that is only proof that it wasn't really dead in the first place. West as a young doctor is persecuted by the Dean of his medical school for his ideas on technological reanimation, especially when he makes it obvious that he wants to work with clinically dead



Young Frankenstein (1974)

human subjects; in these stories many of Lovecraft's descriptions of the conservatism of the medical establishment in dealing with the possible reanimation of the "dead," are strikingly prescient (the author can personally vouch for this). Other Lovecraft descriptions in these stories also come across eerily to the modern cryonicist; here, for instance, is a Lovecraftian vision of an early, primitive cryonics lab:

".... we fitted up on the ground floor an operating room and a laboratory, each with dark curtains to conceal our midnight doings. ... It was agreed to call the whole thing a chemical laboratory if discovery should occur. Gradually we equipped our sinister haunt of science with materials either purchased in Boston or quietly borrowed from the college — materials carefully made unrecognizable except to expert eyes — and provided spades and picks for the many burials we should have to make in the cellar. At the college we used an incinerator, but the apparatus was too costly for our unauthorized laboratory. Bodies were always a nuisance — even the small guinea pig bodies from the slight clandestine experiments in West's room at the boarding house."

In the reanimator stories it seems that the corpses rarely come perfectly fresh, and often there is brain damage enough to drive reanimated humans into murderous rages. The pinnacle of reanimation difficulty occurs in the next to last vignette, as a more mature Dr. West, working in an army field hospital, reanimates the body of an aviator who has been essentially decapitated in an airplane crash. In the scene, West reanimates the head and the body separately. If what happens next degenerates into farce (the head and body seem to be metaphysically connected, and the body, carrying the head, escapes), it is only because Lovecraft at last abandons his scientific rigor. Until then, the "ramifications and corollaries" of materialism, of which Lovecraft's narrator speaks, propel the author into a pragmatic view of the potentialities inherent in "dead" bodies which is broadly similar to that taken by modern cryonicists.

Lovecraft and Cryonics

There seems to be something about the cold, and particularly the frozen wastes of the polar regions, that touches writers of scientific horror fiction. The reader will remember that Shelley's Frankenstein ultimately flees into the Arctic, and Edgar

Allen Poe's novel *The Adventure of Arthur Gordon Pym of Nantucket* uses the Antarctic as a setting. Lovecraft, too, used cold as a backdrop for horror (his biographers note that in his private life he also had a lifelong hatred for the cold); and some of Lovecraft's artistic uses for low temperature have since become stock in fiction.

Lovecraft, for instance, was possibly the first science fiction writer to use cryogenic interment to keep monsters fresh. His 1931 novella, *At the Mountains of Madness*, details the exploits of a small university exploration team to the Antarctic continent. While there, an isolated part of the team unearths the frozen remains of eight horrifying half-vegetable, half animal creatures — representatives of an extinct race of beings. The scientists haul the specimens back to camp for dissection (the camp dogs naturally go wild), and find them amazingly well preserved. In a scene that has since become hackneyed (but Lovecraft did it first!), study proceeds on one specimen while the others are allowed to warm up while nobody pays attention to them. The result is carnage.

The vegetable monsters, it turns out, are representatives of an elder race which at one time fashioned the ancestors of all life on Earth. They themselves are life-creators, and one of their creations is a race of giant blob-like slave organisms, which ultimately turn on them and kill them, Frankenstein-style. It seems that the penalty for playing God applies universally. In Lovecraft, even the monsters have monsters to trouble them.

In coming years, the "thing found frozen in the Arctic" was to be used in many science fiction films, from *The Thing* (where a frozen intelligent vegetable owing much to Lovecraft is mimed by a young James Arness), to schlock movies like *The Giant Mantis*, *The Evil of Frankenstein*, and *Navy vs. The Night Monsters*. Through them all ran the idea that not only are there some Things Man Was Not Meant To Know, but also that there are some things Man Was Not Meant To Thaw.

Lovecraft was to return to the theme of the scientific assault on mortality several more times in his tales, and cold is used at least once more as an important device. In the mad-scientist story, "Cool Air," the narrator (a New York City renter) learns that an upstairs neighbor to his new apartment is a reclusive and learned Spanish physician named Muñoz, who as a result of some strange health problem must

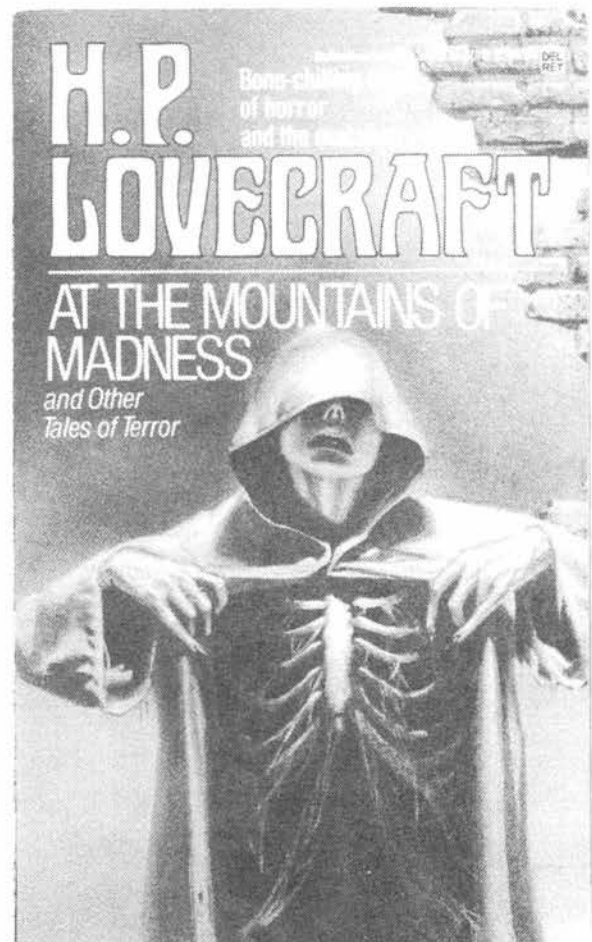
keep his rooms always at the chilly temperature of 55 degrees Fahrenheit. As the story progresses, the narrator suffers a heart attack, and in his need for emergency medical help is forced to turn to his slightly creepy fellow tenant, whom he has never met. Dr. Muñoz turns out to be a cultured gentleman with a touch like ice. As the narrator is being treated within the frigid apartment of his physician-neighbor, he is told certain things about the doctor's immortalist philosophy, and about the possibilities of science:

"But repugnance was soon forgotten in admiration [writes the narrator], for the strange physician's extreme skill at once became manifest despite the ice-coldness and shakiness of his bloodless-looking hands. He clearly understood my needs at a glance, and ministered to them with a master's deftness, the while reassuring me in a finely modulated though oddly hollow and timbreless voice that he was the bitterest of sworn enemies to death, and had sunk his fortune and lost all his friends in a lifetime of bizarre experiment devoted to its bafflement and extirpation."

Muñoz has to be at least a Venturist! As the narrator is being treated, he is also told that because "will and consciousness" are stronger than organic life itself, that there are ways of preserving "nervous animation" in the absence of organ function, provided that the body is preserved. Presumably, his host tells him, it might be possible for him to live in some manner without a heart at all.

The narrator recovers, but as the months roll by, he finds Dr. Muñoz becoming worse. The Doctor's face is growing more florid daily and his coordination and mentation are beginning to suffer. He has also begun to give off an odor, and is forced to bathe more and more often in strange aromatic chemicals. The refrigeration machine (an ammonia compressor) is duly modified to provide temperatures as low as 28 degrees, and for a time this succeeds. Then, one day, the machine breaks.

This provokes a crisis. The narrator is

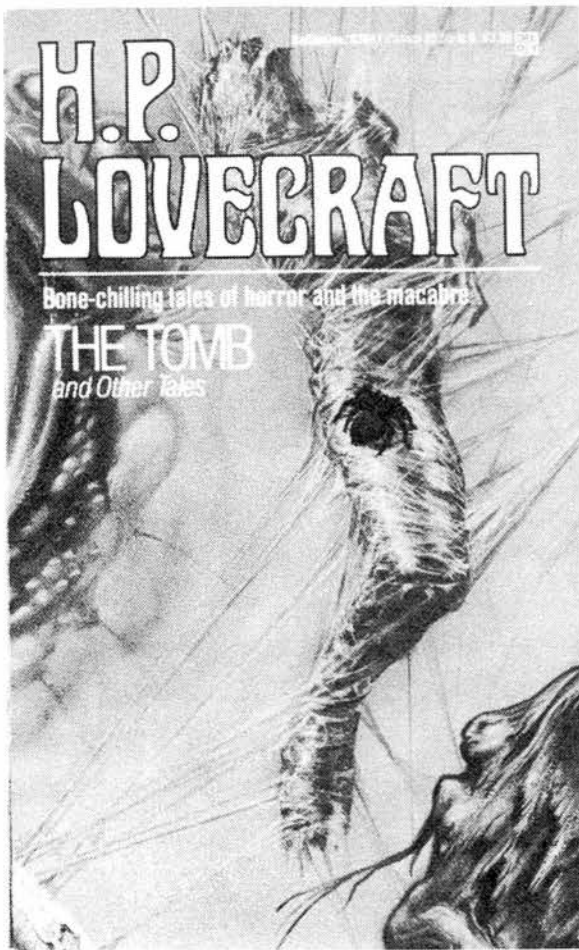


forced to make a trip "far downtown" to a supply house to replace a compressor piston, while his friend is reduced to bathing in ice-water in his bathroom, supplied by ice carried by a local boy. By the time the narrator returns from a difficult trip, however, the local boy has run off, the day is hot, and there is no sound from the apartment but what the narrator describes as "a nameless sort of slow, thick dripping." A door is forced, and the narrator finds:

"A kind of dark, slimy trail led from the open bathroom door to the hall door, and thence to the desk, where a terrible little pool had accumulated. Something was scrawled there in pencil in an awful, blind hand, on a piece of paper hideously smeared as though by the very claws that traced the hurried last words. Then the trail led to the couch and ended unutterably."

It turns out that Dr. Muñoz has not only been sick for 18 years, he has been clinically dead for 18 years. However, he is marvelously well preserved. Or, at least, he had been for a time.

"Cool Air" as a story clearly owes a debt to "The Facts in the Case of M. Valdemar," but Lovecraft's essential change



in Poe's earlier classic tale is to alter at least some of the preservative mechanism from the semi-mystical force of hypnosis to the straightforward one of medical science. The suspended human this time is a scientist-physician, one who (like Faust) plays an active role in his own bargain with the devil of technology. In Lovecraft occurs also, for the first time in fiction, the important device of the scientist deliberately setting out to preserve his own body, upon death, by *cryogenic* means. As such, "Cool Air," vintage 1928, holds some claim to being the world's first cryonics story.

To be sure, Lovecraft's science lacks for accuracy and believability; and his cryonics, introduced purely as a device for heightened horror, is of a do-it-yourself variety. For what (we ask) could be more terrible for a cryonics patient than to be forced to function as one's own doctor and engineer, and to have to take care of one's

own cooling arrangements and repairs alone, while watching oneself slowly decay at a temperature that is too high? Lovecraft is first also to deal with the very ghoulish "What if your fancy equipment blows a gizmo?" problem in cryonics. His answer, as in most of his fiction, is that it won't be pretty.

Does cryonics as an idea owe any historical debt to Lovecraft? There is some indirect evidence for it. Lovecraft's influence on science fiction authors has been wide, and it is sometimes easy to guess which authors have read Lovecraft and which have not.* Since "Cool Air" was first published in March, 1928, we would particularly like to know whether it had an influence on science fiction author Neil R. Jones in his writing of what has classically been considered the first cryonics short story, "The Jameson Satellite," published in July, 1931.

This is the story which Robert C. W. Ettinger said inspired him to his own cryonics-related fiction, and still later, his formal suggestion that cryonics be practiced for real. Readers will remember (see *Cryonics*, Nov. 1991, p. 5) that in "The Jameson Satellite," a professor Jameson directs that his body be sent into Earth orbit when he dies, in order to preserve it. Presumably in 1931 the idea of outer space entailed permanent freezing, and Jameson thereby (perhaps a bit too coincidentally) manages to bypass the very sort of equipment failure and human failure problems that plague Lovecraft's good doctor Muñoz. Did Jones have Muñoz in mind?

In Jones' story, Jameson's frozen body is discovered in the far future by a race of immortal alien robots, who remove his preserved brain and place it in a robot body, a process which confers functional immortality on it. Functional immortality as a disembodied brain, cared for mechani-

cally by aliens from outer space? Wild as this may seem for 1931 vintage science fiction, readers may be interested to know that Lovecraft had worked this same theme also, just the year before. In the Lovecraft story, clandestinely visiting alien beings occasionally kidnap overly curious or meddlesome humans, by the simple process of removing their brains into sealed metal containers, for easy transport across space. The Earthling-brains are then available to be tapped for their knowledge (they can see, hear and speak with the aid of mechanical devices), but of course are utterly helpless. At one point, one of the disembodied brains (for reasons that are never clear) tries to convince the narrator to agree to let himself be brain-transferred to a mechanical housing in the same fashion. In the speech, the brain (housed in a cylinder connected to several devices, sitting on a table) speaks mechanically:

"Do you realize what it means when I say I have been on thirty-seven different celestial bodies, planets, dark stars, and less definable objects? [...] All this has not harmed me in the least. My brain has been removed from my body by fissions so adroit that it would be crude to call the operation surgery. The visiting beings have methods which make these extractions easy and almost normal — and one's body never ages when the brain is out of it. The brain, I may add, is virtually immortal with its mechanical faculties and a limited nourishment supplied by occasional changes of the preserving fluid."

Again, this is a quote from Lovecraft, not Jones. The Lovecraft story is titled "The Whisperer in Darkness," and it was published in 1930. "The Jameson Satellite" was published in 1931. Did Jones read Lovecraft and find both his cryonic and cyborgian ideas there? The reader's guess is as good as mine.

Conclusion — Complete Alienation as Ultimate Horror

Whatever the literary heritage of "The Jameson Satellite," it is an interesting fact that the basic ideas of [1] cheating immediate death by having one's body cooled, and [2] cheating ultimate death by having superior technologies transplant

* To pick an interesting example, Lovecraft's 1935 *Venus*, featuring steaming tropical jungles and reptilian natives with chest tendrils, is also the *Venus* of Heinlein's *Between Planets* written a generation later. In another Lovecraft story the aliens, who have faces covered with wriggling feelers, want to capture the hero and transport him to their main base of operations on Pluto — a plot that shows up decades later in Heinlein's *Have Space Suit, Will Travel*. And Lovecraft's elder "Gods," always waiting for a dimensional hole to open so they can reclaim an Earth they used to rule, are reminiscent of the Sons of the Bird in Heinlein's *The Unpleasant Profession of Jonathan Hoag*. And so on. So we can surmise that Heinlein read quite a bit of Lovecraft.

one's brain into a mechanical support device, had each already been anticipated in Lovecraft's stories a couple of years before Jones used them. That Lovecraft originally came up with both of these ideas, however, *in his search for a better horror story*, is something that bears remembering by cryonicists. Where Jones seizes on the positive aspects of an isolated brain failing to age, Lovecraft before him probably conceived of the idea as the nearest and best literary approach to unending scientific Hell, if only the unaging brain were made powerless. (Indeed, Jones, possibly in a nod to Lovecraft, does have a sequence where his immortal and unkillable cyborg hero is trapped for a time in just such a way, with no communications and no prospects of help). Such dark thoughts, no matter if shaken off later, are typical first reactions to the idea of scientific immortality, and the reader will remember that "a trip to scientific Hell made possible" can be fairly said to be the theme of the first cryonics story by Robert Ettinger himself ("The Penultimate Trump" (1948), see *Cryonics* May, 1991).

As a master of psychological horror, one of the principal fear responses which Lovecraft sought to stimulate was the human dread of alienation; the fear, as social beings, of being utterly cut off from all social contact and familiar surroundings, while still remaining sentient. This horrible feeling of strangeness and apartness flows through nearly all of Lovecraft, and there is evidence that the author himself felt during life to have been a sojourner outside of his proper time. The general theme, however, goes back to the beginning of the science fiction genre. *Frankenstein*, as has been noted, is a tale of the horrors of alienation (neglect as a child, physical unattractiveness) perhaps even more than scientific resurrection. The theme recurs in Shelley; her only other science fiction novel (*The Last Man*) is a tale of the last man on Earth. Lovecraft, like Shelley, seems to have been led to many of his novel and prophetic ideas via an attempt to simply pull all the "fear of isolation" strings at once, while at the same time trying to keep mystical events to a minimum.*

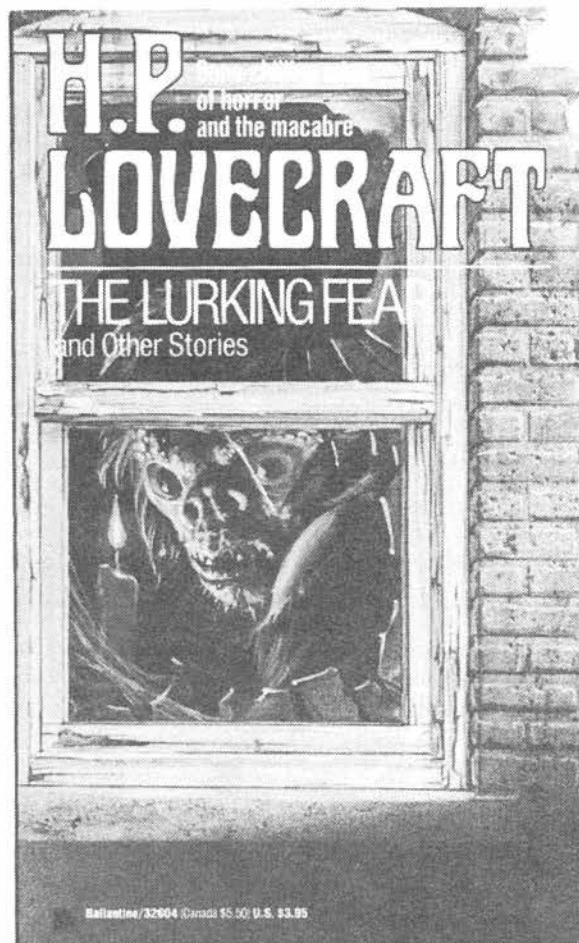
Consider the "alienation factor" of waking up in another body, or a mechani-

cal body. Or the alienation of waking up out in deep space, surrounded by. . . *aliens*. Or waking in a distant time, completely out of touch forever with all that you ever knew. Or waking up as a disembodied head or brain, after being reanimated by scientific means. All of these themes occur in Lovecraft stories, and so potent is their peculiar vision of horror for Lovecraft that he cannot wish them even on his monsters without some expression of empathy. Indeed, in *At The Mountains of Madness*, the narrator at one point is moved to pity regarding the resurrected Antarctic vegetable-creatures and their anachronistic plight in modern times, beset as they are with humans and dogs:

"Poor devils! After all, they were not evil things of their kind. They were men of another age and another order of being. Nature had played a hellish jest on them — as it will on any others

that human madness, callousness, or cruelty may hereafter dig up in that hideously dead or sleeping polar waste — and this was their tragic homecoming. They had not even been savages — for what indeed had they done? That awful awakening in the cold of an unknown epoch — perhaps an attack by the furry, frantically barking quadrupeds, and a dazed defense against them and the equally frantic white simians with the queer wrappings and paraphernalia.[...] Scientists to the last — what had they done that we would not have done in their place?"

The writer's point is precisely that the monsters are not evil, but rather it is the situation they are placed in that is evil, and we ourselves would do no better if it were us waking from an equally long suspension. Perhaps that is Lovecraft's opinion in a nutshell — resurrecting someone (even someTHING) unto social isolation is "madness, callousness, cruelty." If so, it is an opinion he does not hold alone. All of



the horrific visions of alienation which Lovecraft so artistically constructed in fiction have plagued, and still continue to plague, modern cryonicists in their occasionally calloused attempts to advance their own peculiar idea. It is not the idea of eventually being pulled forever out of one's culture, one's family, and all one's relationships *per se* that terrifies the average person contemplating cryonics (for death obviously does all that); but the terror is rather the idea that all this could happen to you on being revived in the future, and you would KNOW IT. Would feel it and suffer it in a place where you do not fit in. And perhaps (in some way, like Lovecraft's kidnapped brains) not even then have a way out again in death.

Women seem to have a more social nature than men; it is probably no coincidence that a woman was the first person to adequately express in fiction the possibilities of social isolation and horror inherent in advanced technologies of

* Humans seem to be herd animals, and an amazing fraction of science fiction builds literary tension in a way not too much more complicated than the tension you feel when you try to stop a rented horse on a trail alone while the other ponies go on ahead. Of course there are variations: for example, Arthur C. Clarke's contribution to this subgenre is to give the isolated and stuck hero some kind of a transmitter so that he can talk to people as he meets his doom. The subject of isolation and self-sufficiency in fiction and life as it relates to cryonics is probably worth another essay.

resuscitation. Today, 176 years after Mary Shelley's nightmare, cryonicists still find themselves failing to sell their idea either to women or to a culture still deeply imprinted with Shelley's Gothic vision of a being reconstructed from the dead, and then cast out of society to suffer. Question: Do cryonicists themselves sometimes

sound like the disembodied brain of Lovecraft's story — coolly and mechanically advertising the attractiveness of functional immortality and future space travel, at the cost of having to mourn who-knows-how-much of the familiar social world, and world of family life as we know it here at the quaint and familiar end of the

twentieth century?

Yes, they probably do. And — depend on it — the chill that runs up the spines of many people who listen to the cryonics idea for the first time, is one that H. P. Lovecraft knew well.

Suspension of Patient A-1410

Tanya Jones

Suspension Standby has never before been as remote or as time-intensive as the one provided for James Hourihan, A-1410. Jim called Alcor for the first time in February of this year to ask for information about becoming a Suspension Mem-

ber. He had cancer, and wasn't very optimistic about his long-term chances. But, as he explained to Ralph Whelan, he expected to have at least 12 to 24 months to pursue various therapies intended to slow and maybe even stop the growth of the cancer.

As with many who enter the sign-up process, Jim procrastinated somewhat in completing his application. In fact, after sending in his Application and receiving the usual (considerably simplified) pile of paperwork in return, Jim did not contact Ralph for a few months. Since Alcor receives calls from people with terminal conditions rather frequently, and only a small fraction of those ever follow-up, Ralph didn't really expect to hear from Jim Hourihan again. More likely, Alcor would receive a brief note from Jim's family some months in the future, explaining that Jim had died, and *Cryonics* magazine was no longer welcome in their mailbox.

Instead, Ralph received a phone call on June 17. Jim was calling from the emergency room of a hospital in the Boston area. He explained that the cancer had invaded the

wall of his stomach, and was causing internal bleeding. The cancerous invasion was inoperable, and would cause his death within 48 hours if it did not abate.

Ralph quickly outlined for Jim just how problematical his situation was. First of all, his paperwork was not in place. Remediating that would have to become his highest priority. Second, his funding wasn't approved. He was hoping to use an employment life insurance policy to fund his suspension, which is somewhat more complicated than a personal policy. Third, and worst of all, Alcor's primary Remote Standby and Transport Team was already deployed to Colorado, preparing for the suspension of Jim *Glennie!* (See "A Well-Loved Man" and "More on Jim's Journey" in the September, 1992 issue of *Cryonics*.)

Naturally, Jim was scared. He wanted a team standing by *right now*. Ralph reminded him once again to see to the paperwork *immediately*, to have someone Federal Express it to Alcor the next morning, and to rest assured, in the meantime, that everything possible would be done to get a team out to him.

With the primary transport team in Colorado, a local group would have to prepare to carry off this transport without assistance from Alcor Central. The New York Stabilization Team, being nearby and well-prepared for such an event, was immediately contacted. Alcor New York team members Stanley Gerber, Gerry Arthur, and Curtis Henderson prepared for the four hour drive to Jim's hospital, on what could be the very first application of their cryonic suspension skills (beyond many training sessions). Upon arrival, they made the first contact and initial arrangements inside the hospital where Jim was receiving critical care (with later assistance from Tony Reno, K. E. Nelson, Walter Vaninni, and Dr. David Greenstein of the Boston area).

Stanley Gerber was designated the hospital/family liaison, and he quickly obtained permission to set up the emergency response equipment (which had been brought from New York by van) in an un-



Photo: Carlos Mondragón

Keith Henson prepares for the Phase II cooling of Jim. To the right, having the appearance of an open refrigerator, is Keith's automated cooling system, seeing its first use in this suspension.

occupied critical care ward directly across the hall from Jim's room. Shortly after their arrival, Arel Lucas was deployed from northern California. About 16 hours after the New York Team arrived, Arel joined them. The four of them maintained a constant watch for another two days before being joined by Michael Darwin and Tanya Jones, both of whom had departed for Boston from Riverside just before the completion of Jim Glennie's suspension.

Greeted at the airport by a somewhat disheveled Stan and Curtis, Mike and Tanya were then briefed on the rather tense situation that faced them at the hospital. Jim's family, although familiar with the concept of cryonics, had been unaware of Jim's strong desire to sign up for suspension. It came as something of a shock. Compounding their distrust of Jim's unexpected request for suspension was the appearance of the New York team. The dedicated New Yorkers, well-spoken and polite, had worked furiously and round-the-clock to prepare the critical care ward for the impending (or so it seemed) transport, in the process neglecting little things, like showering, shaving, and shut-eye. Their efforts were in Jim's best interests, but the family would have preferred to see dapper, professional-looking representatives working 8-hour shifts.

So Stan, Curtis, and Gerry were dispatched to get some well-deserved rest while Arel gave Mike and Tanya a brief tour and introductions to the family and some of the hospital staff. Jim's mother

and his fiancée, Devra, became our primary points-of-contact. They were cool and distant and seemed reluctant to talk with us at first. They expressed concerns about cryonics and were worried that this whole thing might be a scam. Once Mike and Tanya explained that the team from New York was comprised of *volunteers*, more concerned with preparedness than appearance, the atmosphere began to lighten. Over the next several hours, questions and answers flew. Mike spoke with Devra, and I spoke with Jim's mother, Mrs. Winslow. We both spoke to the hospital staff.

With his family feeling a bit more at ease, the hospital began to feel more at ease. Little did we know, that trust was about to be shattered. The first family member to sit down with us for a frank discussion of Jim's prognosis was Ed, Jim's brother. Ed openly told us the concerns that the family had about our presence, and together we were planning how to proceed. We were sitting in a lounge quite some



Photo: Carlos Mondragón

Prior to the beginning of surgery, surgeon Nancy McEachern and Arel Lucas (Instrument Nurse for this case) discuss the procedure.

distance from Jim's room when Mr. Winslow, Jim's step-father, arrived in a near panic. He informed us that the press had been called and wanted to interview us. I think that he was expecting that Mike and I would be gleefully rubbing our hands together in anticipation of a media circus. The exact opposite was the case. Mike and I were appalled that the media knew about Jim and the fact that he was a candidate for cryonic suspension. We asked that the media *not* be given any information, as it might compromise the quality of care that we'd be able to provide. Mr. Winslow was surprised at our complete lack of enthusiasm about press involvement, but he agreed whole-heartedly that the media should be told nothing. Perhaps this was the moment when we began to gain their trust.

Jim recovered from the internal bleeding. It was the hospital's policy to use extraordinary measures to save the life of every patient in their wards, even if it meant pumping multiple liters of blood products into the patient on a daily basis,



Photo: Carlos Mondragón

The eyes have it. Dan Spitzer appears furiously impatient as he observes the surgical proceedings.



Photo: Carlos Mondragón

Nancy McEachern and Mike Darwin perform the delicate open-heart cannulations.

line, trying to locate a mortuary which would be willing to work with us. He found one which was a thirty minute drive from the hospital. This mortuary backed out of their verbal contract with us, on the night Tanya and Arel left: *just when their services could be needed the most (when Jim gave us a scare!).* They did, however, recommend another mortuary which could assist us with the rather special requirements of Massachusetts law. (A body cannot be shipped out of Massachusetts unless it's embalmed!)

This second mortuary caused us a few problems as well, not the least of which was sending us a bill for over \$4,000.00 for ten days' storage of equipment! (We didn't even use them for the transport.)

Jim's condition began to improve once again. After two weeks in Boston, Mike returned to Riverside, leaving Naomi to monitor Jim's condition. Jim had been released

from the hospital, and he went home with hospice care. His condition continually improved, despite the ever-present danger of bleeding out through his stomach. Jim was even taking in solid food again, something which he'd been unable to do for some time.

It was his relatively good health that prompted the decision to cease the standby. After two weeks in Boston herself, Naomi returned to Riverside. This decision was also based on the understanding that Jim, Devra, and Mrs. Winslow would be re-locating to California at the same time, to assure a rapid transport and successful suspension for Jim.

We set up a fully furnished apartment in the same complex where Ralph and Tanya were living in Riverside, placing them a 15-second walk from their apartment, and ten minutes' drive from the Alcor facility. The apartment complex manager was sympathetic to Jim's plight, and everything was arranged in three days. We even received permission to park the ambulance in the handicapped parking

space closest to their apartment. Unfortunately, Jim's flight to California was delayed once, and then canceled altogether. He didn't quite feel able to leave his family and friends, given the circumstances.

With that development, we had to do some hard thinking about re-deployment of a standby team. Financially, it was untenable. Ethically, what else could we do? The arrangement then became that Alcor would only send personnel if the family and physicians agreed that no more heroic efforts would be used to prolong Jim's life. This was as much for our benefit as it was for Jim's. By this time, he was on morphine and frequently was combative and forgetful, even with the people he loved most. Everyone, including Jim, agreed that this was the way things would proceed.

And they did. On July 24, the decision was made to return Mike, Tanya, and Naomi to Massachusetts. Two days later, we landed in the late evening and went to visit Jim immediately. He was looking well. In an attempt to gauge his condition, we used pulse oximetry, a non-invasive procedure which measures the oxygen saturation level in arterial blood. His saturation levels were high, so Mike opined that there'd be no problems that night. We found the nearest local motel and got a few hours of sleep, under the impression that we'd have the entire next day to complete our preparations for the transport.

At 9:00am the next morning, Devra called to tell us that Jim had suffered respiratory arrest. We immediately jumped into our rented van and drove to his house. Devra and Mrs. Winslow had already packed Jim's head in ice. The hospice nurse had been called to pronounce, but she was still twenty minutes away. This gave us a little time to prepare, but certainly much less time than we'd been anticipating.

Although we had a vast majority of the transport equipment in the van and with us, we were missing some critical pieces which were being stored at (Alcor member) Dr. Greenstein's office. Naomi, who best knew the area, drove like a bandit to get the portable ice bath (PIB) and the rest of the equipment while Mike and Tanya drew up the medications and set up the heart-lung resuscitator (HLR). For the second time in as many months, a patient arrested without the transport team in the next room. In Jim's case, we had planned to do all of the equipment set-up that

which is the course of care that Jim required. Despite his surprising recovery, though, Jim's situation was still delicate enough that the full team stood by for several days, even going so far as to recruit Steve Bridge from Indiana for a weekend when Stan, Gerry and Curtis were sent home. Stan's dedication in assisting with this transport nearly cost him his job as an EMT, due to his extended absence.

Tanya and Arel left Boston a week into the standby. But just hours after they left to return home, the call came through that Jim's condition had taken a drastic turn for the worse. In an attempt to get sufficient trained personnel on-site for the transport, as only Mike Darwin and the local members were remaining, Naomi Reynolds was sent on the first available flight from northern California to Boston. Little did any of us know, Jim was going to rally yet again.

One of the things Stan had done, prior to the arrival of Mike and Tanya, was go through the Boston yellow pages line by

morning (after some rest). The decision to wait was based on his oxygen saturation levels, which are usually an excellent indication of a patient's prognosis. Unfortunately, although we weren't certain of this at first, Jim's respiratory arrest occurred after he had had many hours of undetectable (to any viewer) gastric bleeding.

Pronouncement took place at about 9:25am, after the nurse arrived, and we were finally able to begin the transport protocol. When we began the HLR support, no ventilation was used. Past research has shown that after prolonged ischemia, the administration of oxygen to a patient can do more harm than good. To confirm that Jim had bled out through his stomach, dark, grainy bits of coagulated blood having the appearance of coffee-grounds were expelled through his mouth with each compression of the HLR.

Most of the transport medications, including an extra bolus of heparin to prevent clotting, were administered. It was about this time that Naomi returned. She had stopped to pick up some ice as well. The PIB, however, was missing some important parts — like the bolts necessary to stabilize the bath for transport. The PIB was unusable.

At the last minute, Mr. Winslow had recommended a friend of his who very generously allowed us to use his mortuary facilities for the washout. Luckily, Mr. Winslow's mortician friend had an ambulance cot which he didn't mind getting a little wet. Jim was then loaded onto the cot and taken to the mortuary, which was a lot

closer than either of the two previous had been.

After the surgical equipment was laid out and the pump was set up, Naomi prepared the organ preservation solution, and Mike and Tanya performed the femoral cut-down (the process used to access the femoral artery and vein for blood washout). Just before the cut-down began, Walter Vaninni and Tony Reno were called to assist with the very fast clean-up and re-packing that was needed to make the flight to LAX.

It was almost a textbook cutdown. A local embalmer was observing the procedures with some interest, and he was ready to step in if his help were required, but it wasn't necessary. Jim, as a fairly young man (28) had large femoral vessels and not one ounce of unnecessary weight on his frame. The cutdown and subsequent washout went very well indeed, and both were performed in near-record time.

Once the washout was complete, Jim was loaded into the transport box, sharing



Photo: Carlos Mondragón

Dan Spitzer stabilizes the cardiotomy reservoir while Thomas Donaldson (left) looks on.

the narrow case with a great deal of ice. In addition to providing his facilities, the mortician arranged a *police escort* for the trip to the airport that afternoon. Although the airport was only about ten miles away, at peak rush hour traffic that trip could be expected to take us two hours. It took twenty minutes. And the police escort is the only reason we were able to make the only direct flight to LAX of the evening.

To make the flight, we had to clean up as quickly as we could, so that when the police arrived we could take our gear and *run*. Mike drove with Devra and Mrs. Winslow, who had both managed to get reservations for the same flight. Tanya rode with Jim and the mortician, behind blaring sirens and flashing lights. Walter and Naomi drove the van with the transport equipment in the back.

The police escort left us at the cargo bay for the airlines. Jim was offloaded and weighed (510 lbs., including ice and transport box), and the box was labeled for the flight. No problems there.

The problems began again when Mike



Photo: Carlos Mondragón

Ralph Whelan (right) and volunteer assistant "Fred" pass the time at the heart-lung machine during the prolonged surgical procedures.

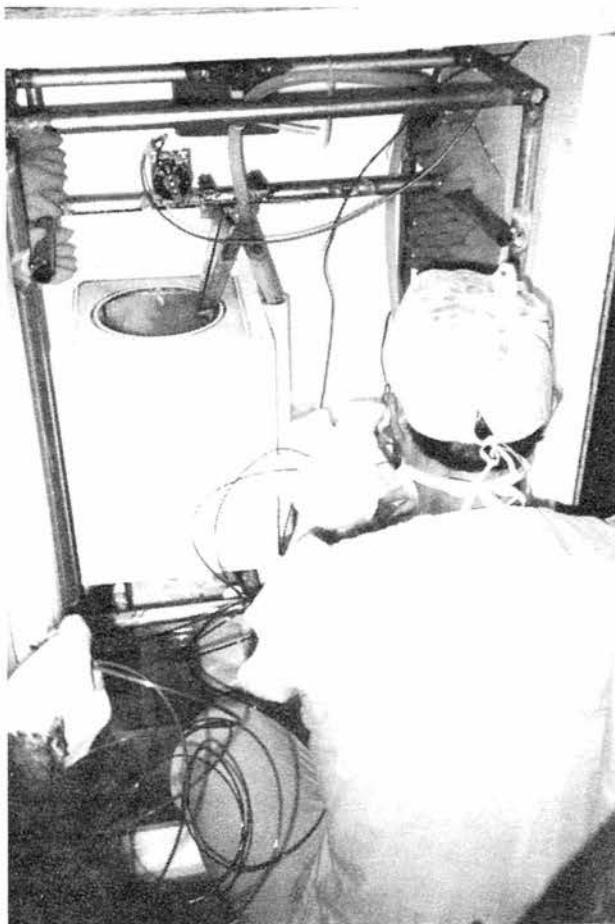


Photo: Carlos Mondragón
 Mike Darwin secures the probes and the bags at the beginning of Phase II (silicone oil) cooling.

stand-by list, with the glowing assurances of the ticket agent that we'd *certainly* be on the flight.

Devra graciously offered her seat to Mike, in case we didn't make the flight. In the meantime, I hovered near the gate agents, hoping that hovering made a difference. It didn't. For all that 17 people *volunteered* to take the next available flight to LAX, we were unable to secure seats for Devra, Naomi, and myself. I went up to yet another gate agent and tried again to get all of us on the plane. Unfortunately, I was only successful in begging one more seat. Devra and Naomi took a flight which left about 15 minutes later, but wasn't directly to Los Angeles. They arrived two hours after we did, after a miserable flight and an excruciating, long day.

Jim was picked up at the airport by Carlos Mondragon and Mike Darwin. Bill Seidel drove Mrs. Winslow to her hotel and then dropped Tanya off at

the lab. Jim arrived shortly thereafter, as did the new contract cardiac surgeon, Dr. Nancy McEachern. (Later that evening, when Naomi and Devra arrived at LAX, Alcor member Judy Sharp taxied them to the Riverside facility.)

Surgery began some time later, and proceeded a little slower than we'd become accustomed to with the previous

contract surgeon. Dr. McEachern was new to the cryonic suspension business, and Jim had a few anatomical abnormalities in store. Despite the time involved in the surgery, which was comparable to the time Jerry Leaf used to take on every case, the perfusion was completed in about three hours and without major complications. At 05:50am on 28 July, the final samples were taken, showing that a venous concentration of 5.5 molar glycerol had been achieved. Shortly thereafter, cephalic isolation occurred, and Jim was lowered into the Silcool bath for the next cooling phase.

For the first time, some of the volunteers assisting in a suspension were ordered to bed before the completion of the perfusion. The idea was that they could then get a few hours sleep and perform clean-up duties as required. Lack of sleeping space was a problem. Two of the volunteers slept in their cars. Still, they were refreshed sufficiently that the clean-up wasn't much of a hardship. Despite minimal direction, the clean-up was performed much faster than usual. It's amazing what even an hour of sleep can do to restore presence of mind.

Jim Hourihan is now in liquid nitrogen. His family has returned home. Despite the many difficulties, he got his wish: he has been cryonically suspended. Like so many of Alcor's members, Jim is a young, sharp, software engineer with bright eyes and big plans. His passage into the future is probably not what he once hoped it would be, but that it can be at all is a tribute to the many volunteers who worked so hard for someone they knew not at all, to a family committed to the wishes of their son, and to a courageous young man who isn't ready to stop living.

arrived at the ticket counter to collect our tickets for the flight, and the agent couldn't find our reservations in the computer. And the flight was not only full, it was overbooked! Mrs. Winslow and Devra had already checked in and were ready to go to the gate at this time. Their tickets were fine. Ours were non-existent. As a result, we were placed at the top of the

Cryonics One Decade Ago *Edited and Abstracted by Ralph Whelan*

From the October, 1982 Issue of Cryonics:

Cryonics and Life: Opening Address at the Joint IABS/Alcor Meeting Held September 12th, 1982

by Michael Darwin

Life is very painful. Sometimes, when I am cut up and hurting inside, I wonder why we cling to it with such determina-

tion. Such moments come often to human beings and if we look outside the Western world, we can see that such moments stretch out to last almost a lifetime for many people. But while these hours of pain may dominate the human condition, they do not control it. For in most, if not all of us there are instants, perhaps only brief flashes like lightning in the distance, of triumph and of the joy of life. Holding a lover, watching a child grow, sweating forth a creative idea; these are the things

that motivate us, these are the things that make us live.

Cryonics is life. Because of this it is a frustrating business, confronting us with problems at every turn, seemingly hopeless at times with the odds stacked ridiculously against us. I will not spend time here today telling you what the problems are. We have had a whole weekend to discuss the obstacles in our way. I would like to talk to you instead about solutions. About a deep and abiding sense of optimism which

drives me and makes me believe that this idea will succeed. It is something I have felt in distant glimpses for a long, long time but only recently have come to see on a daily basis.

Inviting all of you to Los Angeles was the first step in sharing this discovery. Seeing Cryovita and meeting the many people who have helped to make a reality the incredible triumph that Cryovita represents is reason enough for you to start to feel some sense of the wonderful possibility of what we are doing. To those of you sitting out there who started out, like me, in the dirty back rooms of mortuaries with a few hundred dollars worth of supplies, seeing Cryovita can provide you with nothing so much as a sense of pure elation at the progress that has been made. A corollary of that elation must be a deep sense of gratitude towards the man who made so much of that progress possible. Jerry Leaf is without any doubt the most decent and dedicated man I have ever met. It is a privilege to be with him and to have the honor of calling myself his partner. It is men like Jerry who give me a good measure of hope that we will succeed. We need more people like Jerry. We cannot hope to launch a recruiting effort to find more of such quality people. But we can start, as I have, by trying to be more like him, by trying to be more thoughtful and more level and harder working. Even a little progress in this way would make for great changes.

There are moments of tremendous satisfaction for me here in Southern California. Moments of satisfaction I never dreamed were possible when I left Indiana over a year ago. When I see people working for this idea; sweating at Cryovita or producing a steady stream of effort to handle administration like Betty Leaf or Paul Genteman have done, I get the feeling that this thing might just work! When I walk into a bookstore and see *Life Extension* is number one on the *New York Times* Best Seller List, I feel a certain sense of excitement I have not felt before except in my dreams. There can be little doubt that we are moving in the right direction. The commitment of other cryonicists around me and the growth of physical and administrative facilities are all incredible reasons for optimism.

If there is anything you take away from this weekend I hope it is an awareness of this progress and a commitment to make continued growth a reality. I hope you have seen what progress can be made by the productive effort of working human

hands. I hope you carry away a strong desire to talk less and work more. As Voltaire said in *Candide*: "We must work in the garden." We must go on to the hard business of fashioning those dreams into a reality that all mankind can share. The first step is in realizing that we are not too small or too weak or too witless to participate. We are none of those things. Almost all of the good which has come in this world has come not from effortless genius, but from the hears and hands of

men and women who toiled and suffered to see their dreams become a reality. We must not forget the word *sacrifice* or its capitalist corollary, *investment*. Neither cryonics or any other significant change in the world will come easily or pay off quickly. It will take work and no small measure of faith to make this idea succeed. We must be prepared for it. Believe me, the moments of satisfaction which come when progress is quietly assessed are well worth the struggle.

How Many Are We?

Alcor has 326 Suspension Members, 463 Associate Members (includes 153 people in the process of becoming Suspension Members), and 25 members in suspension. These numbers are broken down by country below.



Country	Members	Applicants	Subscribers
Argentina	0	1	1
Australia	14	1	3
Austria	0	1	1
Canada	11	4	20
Denmark	0	0	1
France	0	0	4
Germany	2	0	1
Holland	0	1	0
Italy	0	2	2
Japan	1	1	0
Mexico	0	0	1
Norway	0	0	1
Portugal	0	0	1
Spain	6	2	0
Sri Lanka	0	0	1
Turkey	0	0	2
U.K.	12	5	7
U.S.A.	275	141	261

And we will succeed. Perhaps not personally. But we will succeed because we are right. For each of us as individuals this idea may not work. We have no way of knowing if those who we have loved and held in our arms and needed so passionately and so well will ever open their eyes again and touch our lips with love and gratitude. We cannot know that. But after a lifetime of letting go, of losing, closing black cuts in the earth and living with much deeper ones in our hearts, we are

right to say, "Damn it, No! No more of this! I have had enough and I will take a stand and I will fight. I will pay everything I have and mortgage even these precious hours of life and love against the chance that I will win." This is right. This is fighting and not surrendering. This is what we are born to do as human beings and we can never give it up. If life is taken from us, we will fight to get it back; if we lose, we will never know and we will have died with the satisfaction of hope and courage,

certain in the knowledge that we are and were right to take a stand and to fight.

Such feelings, such certainties are in us deeply. They are the same certainties and feelings that spread life out over this globe four billion or more years ago. These feelings are the stuff that all good and progress are made of. Just saying, "I have had enough, I will not surrender, I will stand and fight death," is three quarters of the way toward victory. We have made that step.

Reviews

Bright Air, Brilliant Fire: On the Matter of the Mind

by Gerald M. Edelman

Reviewed by Thomas Donaldson

Some time ago I reviewed another book by Edelman, *Neural Darwinism*. Edelman's thesis in *Neural Darwinism* was that we learned through a process of selection of neuron groups. It was a neural version of the kind of selection by which our immune system learns to recognize antigens (or for that matter, by which Darwinian theory operates on evolution of life forms). It also presented learning as resulting from one special kind of neural net; the special feature came from the fact that selection of a nerve pathway or group comes from inbuilt general drives by the learning animal to survive, combined with its particular environment at the time of learning.

That is, a rat learns a maze not just out of curiosity but because it is hungry and seeks food. The most important feature of this kind of neural net is that it learns on the basis of its own inbuilt drives, not because a programmer has "taught" it. (Many kinds of neural net do require actual teaching).

Edelman won the Nobel prize in physiology or medicine in 1972. Despite that, his book *Neural Darwinism* was not well or clearly written. His latest book has far more clarity and better writing. In it, he explains his own theory (which he admits

has large elements of speculation) about how human brains work, straight up to issues which philosophers debate, such as consciousness, attention, and language. Clearly these subjects interest cryonicists a good deal.

At present (1992) it's not at all clear that the core of Edelman's theory of learning (that is, neural selection) will really stand up under experiment. But in a broad sense his theory comes close to sketching out an explanation of all those features he describes. Even for learning, he points out some features which learning in real living creatures (not machines, built by us for our purposes) must satisfy. The major such feature is that, even at the level of forming categories, it must link together our *desires* with our environment. He rightly points out that every human idea up to the most abstract bears some relation to our human desires.

As we evolved, and our brains grew larger, other abilities took form upon that base. The earliest was *consciousness*, which came about through neural circuits which integrated all our various perceptions, both of our internal state (desires, fears, pains) and our outside perceptions. Consciousness, then, even at a low level, helps us understand relations between

these different perceptions. And Edelman brings up some very interesting points about consciousness in terms of brain anatomy when he discusses several kinds of brain injury: for instance, one kind makes its victims quite unable to recognize faces. . . in the particular sense that they have no *conscious* recognition. The interesting point about this injury is that its victims will show other signs that they do in fact recognize these faces — even if they aren't conscious of it. A second example comes from another kind of injury producing blindsight: a condition in which victims, if asked, will say that they see nothing, but can still accurately point to named objects in their vicinity. From brain anatomy, Edelman suggests that consciousness in this simple sense began with the earliest vertebrates, about 300 million years ago.

This simplest form of consciousness isn't the consciousness of human beings; that involves an even larger frontal cortex, with circuits which not only connect together all the related percepts we feel at one time, but also allow us to recall other situations from the past, and by letting us recognize others, gives us a sense of self. Only human beings and the higher apes have such abilities. (Note that in his theory the existence of a self depends on the existence of others).

Theories of consciousness and self based on our brain anatomy and biology have one major advantage: they do not involve us in infinite regress. Edelman brings out this fact, and the reasons behind it, when he discusses the question of consciousness. Where is this self that controls our body? Postulating an immaterial soul fails to answer this question, since then we would have to ask over again: where is this self in the soul? How does this *soul* become aware?

Edelman's treatment of memory, and our ability to form general concepts of the world around us, may seem quite unfamiliar to many people accustomed to computers. At the same time, it avoids yet another infinite regress. First of all, our memory comes directly from the physical connections between our neurons. These connections extend to those parts of our brains that deal not only with perception but also with our desires. We remember and behave differently because we have different connections: each of us is a unique piece of hardware. There is nothing here resembling memory chips at all; these connections *are* our long-term memory. (Although Edelman does not discuss this point, the fact that rearranging connections takes time probably accounts for the multiple levels of short-term memory scientists have found.)

In this case, the infinite regress avoided is that of memory itself. To say that our memory was coded into *on-off* switches creates another question: how does that code connect to our perceptions and behavior? Computer memories hold symbols only; in our computers they take their meaning and interpretation from the

fact that human programmers wrote them. But we have no Programmer for our own brains. To understand how brains work, we must at some point find direct, not symbolic, connections between our thoughts, our desires, and the outside world. (The incidental fact that no sign of "brain memory codes" has yet appeared merely emphasizes this point.)

By this time you will have worked out that Edelman believes that using computer analogies to understand how brains work goes badly off track. In the central part of his book he only alludes to this point in passing, preferring to develop his own theory rather than criticize that of others. However he does include a Postscript in which he directly discusses the fundamental errors in this idea and in other ideas (such as that of Penrose, that somehow quantum gravity will also explain to us how our minds work). Those inclined to argue these points may wish to examine this Postscript.

However you should *not* think that Edelman believes that brains must essentially be biological. In one chapter, *Is It Possible to Construct a Conscious Artifact?*, he discusses several laboratory

models (using computers for simulation of very primitive brains) showing how his theory can work. Although it would need a much more powerful computer than any that presently exists, a simulation of a conscious brain, and even (for an even larger computer) simulation of a brain operating like our own, remains quite possible. The essential points he makes about brains and thought do *not* depend on any specific substrate. But they would quite emphatically not operate like a computer — even if we use a computer to simulate them.

Although I have specific doubts on many details, he deserves commendation for stating it. It points to a set of ideas which, modified by experiment, could give us (by early in the next century) the first reasonable theories of how minds work inside brains. In their broadest form, these ideas aren't even unique to Edelman. One can see them in several other recent discussions reviewing the present status of the memory problem. But so far as I know, Edelman is the first to write them all down in connected form, ready to be criticized and developed. That is, of course, the merit of scientific speculation.

Business Meeting Report *by Ralph Whelan*

The September meeting of the Alcor Board of Directors, open to the public, began 1:02 pm. and took place at the Alcor facility in Riverside, California.

Since the board would be voting on all nine board seats, the meeting began with a discussion of the voting procedure for new directors and officers. The voting was conducted by secret ballot, and it was agreed that if there was a tie for one or more of the seats, the candidates "competing" for those seats would then constitute a new ballot, and voting would continue with the *original* nine directors having as many votes to cast as there are available seats. Paul Wakfer noted that we should conduct business relevant to the existing board *prior* to voting in a new board. The only business specifically relevant to the existing board was the approval of the July and August minutes, so that topic was moved to the top of the agenda.

Page 2, paragraph 3 of the July minutes will be changed to include Naomi Reynolds, Keith Henson, and Steve Bridge in the list of persons present in the Boston standby. Page 3, paragraph 5 of the August

minutes will be changed to indicate that Carlos' memo (which the board approved) implemented roughly one third (by dollar value) of the Patient Care Trust Fund Advisory Committee's (P.C.T.F.A.C.) suggestions. Page 4, paragraph 3 of the August minutes will be changed to indicate "Carlos and Keith" rather than "Saul and Keith."

With those changes, the minutes were unanimously approved.

Carlos Mondragón read a list of people who were suggested to him by various members for potential board seats. He then nominated all of the people on that list. Each nominee was then allotted a maximum of 5 minutes for "campaign speeches." Three persons who were not nominees also described their preferences. Ballots were then handed to the 9 directors. Bill Seidel, Mike Perry, and Ralph Merkle were designated (by mutual agreement) voting tallyers, and they collected the voting sheets of the directors.

The results of the voting for perpetuation of the board are as follows (the number of votes received follows each name):

Hugh Hixon (6), Carlos Mondragón (6), Dave Pizer (6), Mark Voelker (6), Steve Bridge (5), Keith Henson (5), Allen Lopp (5), Brenda Peters (5), Ralph Whelan (5)

When the voting results were announced, Charles Platt raised the issue that sealing the voting sheets in an envelope (which was the intention of the tallying committee) could lead people to question the integrity of the vote counting. Other persons then expressed interest in seeing the voting results for the remainder of the candidates. Dave Pizer made a motion that the tallying committee should "unseal" the voting sheets, check the voting results for *all* candidates, reseal the voting sheets, and announce the remainder of the voting totals. The motion passed unanimously.

The new board then interrupted the public meeting for a 35-minute private session, to orient new board members and to prepare an agenda for the remainder of the meeting.

When the public meeting resumed, Keith Henson reported that our most recent standby and transport (the James Hourihan case) cost over \$21,000, which is at least

seven times the allotted cost for standby and transport (\$3,000). The family did reimburse Alcor for some portion of this added expense. Keith solicited suggestions for abating this. Charles Platt suggested that we use at most one person from Riverside on a standby, with the remainder being local volunteers. The lack of adequate transport equipment outside of Alcor Central (that is, equipment that is *not* present at most local chapters) was considered, in that perhaps the high up front cost of supplying chapters with more equipment will save costs over the course of several suspensions. The topic was tabled for further study.

A member of Alcor has submitted a research proposal which will test memory survivability in salamanders. The proposal requires \$3,000. The board voted unanimously to approve the research proposal. *Cryonics* magazine will report further details of this research effort as they become available.

There was considerable debate about whether it is reasonable to use Endowment Fund money to purchase equipment from Cryovita. Eric Klien argued that money should never be removed from the Endowment Fund, since when the Fund was created the membership was told that only the interest would be used for operations. Ralph Whelan responded that this is in fact an Operating Endowment investment, since the money will be repayed to the Endowment through the course of the next several (eight or so) suspensions with at least the interest the money would receive had it not been used for this loan. Eric responded that this was a high-risk investment, and was not reasonable for that reason. Keith Henson responded that at the rate Alcor is currently doing suspensions (six per year) there was not much risk that the money would not be repayed.

However, Paul Wakfer indicated that he would be willing to finance the purchase for Alcor, with an arrangement whereby we pay Cryovita (instead of repaying the Endowment) on a monthly basis for interest accrued on the amount owed to Cryovita, and pay off the principal in \$3,000 blocks as each suspension is performed. Carlos made a motion for the board to authorize his pursuing this, which was seconded and voted in with two abstentions. (Hugh Hixon and Brenda Peters are Cryovita shareholders, and thus could not vote.)

Dave Pizer made a motion that if our attorney does not advise us re the 1 Mil-

lion A.D. funds within two months, we should simply take the existing money. The motion was seconded, but failed with three in favor and five opposed.

Keith Henson circulated a draft of a patent policy for insuring the interests both of Alcor as an organization and for specific employees of Alcor re patentable inventions. Keith's motion to pass the draft was not seconded because various board members felt too unfamiliar with the concept. The topic was moved to the agenda of the October meeting.

Allen Lopp explained that Alcor member Austin Tupler has offered to underwrite an independent audit for Alcor's books, to upgrade the credibility of Alcor's financial statements. He then explained that persons interested in picking the auditor, overseeing the proceedings, etc., should contact Austin Tupler or Allen Lopp to become a part of the newly forming Audit Committee.

Dave Pizer suggested that we get an estimate from the auditor(s) in advance, and then form a fund (that Austin Tupler and others will underwrite) that should meet this estimate in advance of the commencement of auditing.

The October meeting agenda will include a discussion by the Board on what it might do to increase membership participation in selection of directors.

Eric Klien circulated several documents detailing his opinion that the money now in the various Alcor funds is being mismanaged. Eric cited the dates and amounts of several removals of money from the Fund, stating that none of the removals should have been performed. He used this information to conclude that Alcor is running at a deficit, rather than at a surplus, as Carlos has asserted.

Dave Pizer then went to great trouble to explain that when Carlos stated that Alcor is running at a surplus, he was referring to how our finances compare with our *projected* finances for this period. Carlos pointed out that Eric is listing only money being removed from the Fund, instead of listing money going in and receivables as well. Carlos maintained that the Endowment has never suffered the kind of depletion that Eric describes.

Brenda moved that all of the persons now handling Alcor's money be bonded, under the proviso that Austin Tupler provide the funding for this in advance. The motion passed unanimously.

Dave suggested that Eric give written suggestions to the board — by a week

before the next meeting — on how Alcor could handle its books to the satisfaction of Eric and other concerned parties.

Brenda then expressed great concern that her investigation into the "Trust" in the Patient Care Trust Fund was frustrated by a) her inability to find a resolution in previous minutes making this a trust, and b) the lack of a written communication by Alcor's attorney in this matter that simply naming it a trust gives it trust-like protection. It was generally agreed that an attorney should be consulted for further advice on how to make the P.C.T.F. more like a trust, but no resolution to this effect was passed.

Keith made a motion that we should vote again on naming Patient Care Trust Fund just to assure anyone interested that it IS a trust, whether we can find the original declaration to that effect or not. The motion passed unanimously.

On the suggestion of Leonard Zubkoff, it was unanimously agreed that there will now be an "Action Items" section of the minutes, and that it will be the responsibility of the Chairman of any given meeting to identify action items and point them out to the secretary for listing under "Action Items" and for addition to the agenda of the next meeting.

Michael Riskin brought up the topic of an "ombudsman" (a liaison between members and the board), offering to perform this duty himself. It seemed appropriate for the members to choose their own liaison, rather than have a board-appointed one, so Michael will be ombudsman for 90 days, during which time he will write an article for *Cryonics* informing the membership of their opportunity to vote for an ombudsman, and he will prepare a special mailing to that effect. The board voted on and unanimously approved the proposal.

The topic of severance packages for Alcor employees came up. There was some discussion of severance packages in relation to specific employees, and then the topic was generalized. Dave Pizer made a motion that Ralph Whelan, Mark Voelker, Dave Pizer, and Brenda Peters form a committee to form a policy on severance packages for Alcor employees, and to investigate prior severance packages to insure that they were handled properly. The motion passed unanimously.

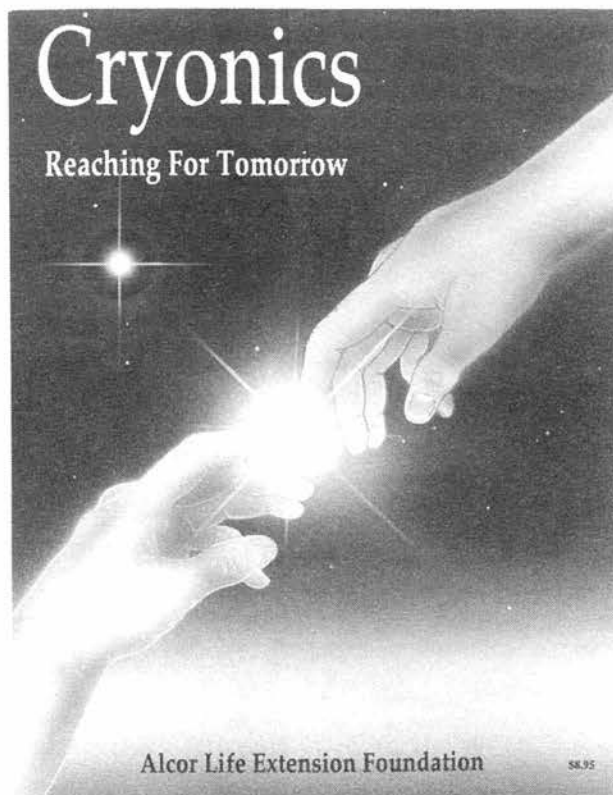
The meeting was adjourned at 6:44 p.m.

Cryonics Is. . .

Low-temperature preservation of terminal patients when medicine is unable to heal them. This treatment is called *cryonic suspension*. The goal of cryonic suspension is the transport of today's terminal patients to a time in the future when cell/tissue repair technology is available, and restoration to youth and health is possible — a time when freezing damage is a fully reversible injury and cures exist for virtually all of today's diseases, including aging.

It is our belief that if human knowledge and medical technology continues to expand in capability, people with conditions that would cause them to (incorrectly) be considered dead by today's medicine will be routinely restored to life and health. This coming control over living systems should allow us to fabricate new organisms and sub-cell-sized devices for repair and resuscitation of patients who will have been waiting in cryonic suspension.

There is already substantial scientific evidence available that current suspension techniques are preserving memory and personality — and that the repair and resuscitation technologies we envision will be developed within the next 50 to 150 years.



Non-members may call toll-free (800) 367-2228 or write (see reverse for address) and receive the book, *Cryonics - Reaching for Tomorrow* for free (regular retail price: \$8.95, member price: \$5.00.)

Alcor Is. . .

The Alcor Life Extension Foundation: a non-profit tax-exempt scientific and educational organization. Alcor currently has 25 members in cryonic suspension, hundreds of Suspension Members — people who have arrangements to be suspended — and hundreds more in the process of becoming Suspension Members. Our Emergency Response capability includes equipment and trained technicians in New York, Canada, Indiana, and Northern California, with a cool-down and perfusion facility in Florida and the United Kingdom.

The Alcor facility, located in Southern California, includes a full-time staff with employees present 24 hours a day. The facility also has a fully equipped and operational research laboratory, an ambulance for local response, an operating room and the world's largest and most technically advanced cryogenic patient storage facility.

All Alcor Directors and Officers are required to be full suspension members.

Call toll-free (800) 367-2228 or write (see reverse for address) for the free book, *Cryonics: Reaching for Tomorrow*.

Table of Charges and Dues

Sign-Up Package: \$100 (certain limitations apply; call 1-800-367-2228 for details)

Whole Body Suspension Minimum: \$120,000

Neurosuspension Minimum: \$41,000

Outside U.S. Surcharge: \$10,000

Annual Adult Dues: \$288.00

Additional Adult Family Member Annual Dues: \$144.00

Additional Family Member Child's Dues (under 15 years of age): \$72.00

Adult Student Annual Dues (must be full time student): \$144.00



You can tour the Alcor facility in Riverside, California under the expert guidance of the Alcor staff. The facility is open to small groups (15 people or less) who wish to learn how terminal patients are placed into suspension and how they are cared for at -320°F .

The Alcor tour also features a discussion of the scientific evidence that patients in cryonic suspension have a realistic chance of being restored to life, health, and youthful vigor as well as a fascinating exploration of the advances likely to come in the 21st century and beyond. The tour provides an invaluable opportunity for you to have your questions about cryonics and the prospect of an extended human lifespan answered.

The Alcor tour is free of charge. If you'd like to make arrangements, call (800) 367-2228.

Yes, I want to make cryonic suspension arrangements with Alcor. Please send me _____ Sign-Up Package(s).

Name _____ Age _____

Address _____

City _____ State _____ Zip _____ Phone _____

Sign-up fee: \$100 per person.

Payment enclosed (check or money order). Bill me.

I understand that an Alcor Sign-Up Coordinator will contact me at the above number.

Order Form

NOTE: All prices include postage and handling and are in U.S. dollars. Minimum order \$5.00. Overseas orders must be paid for with U.S. dollars by Traveler's Cheques or International Money Order. (Overseas orders add 10% for shipping.) All orders are subject to availability and all prices are subject to change.

Cryonics Magazine

Subscriptions:

- United States: \$35.00/year
 Canada and Mexico: \$40.00/year
 Outside North America: \$45.00/year

Cryonics back issues:

U.S., Canada and Mexico: \$2.50 each. Issues: _____
 Outside North America: \$3.50 each. Issues: _____

Membership

- Alcor Suspension Membership Packet \$100.00

Books

Cryonics - Reaching For Tomorrow	\$5.00	_____
Engines of Creation	\$10.95	_____
The Prospect of Immortality	\$11.00	_____
Man Into Superman	\$14.00	_____
Great Mambo Chicken & the Transhuman Condition	\$18.95	_____
The 120-Year Diet	\$5.95	_____
The Tomorrow Makers	\$18.95	_____
Immortality, Scientifically, Now	\$11.95	_____

Brochures

Alcor Life Extension Foundation	\$0.75	_____
Why Cryonics Can Work	\$0.25	_____

Articles and Reprints

Why We Are Cryonicists	Free	_____
Alcor: The Origin of Our Name	Free	_____
Technical Case Report: Neurosuspension of Alcor Patient	\$3.00	_____
The Journey Begins: Alcor Member Enters Biostasis	\$2.00	_____
The Scientific Validity of Cryonic Suspension: A Bibliography	\$3.00	_____
Long-Time Alcor Member Enters Biostasis	\$2.00	_____
The Cryobiological Case For Cryonics	\$2.00	_____
Mathematical Analysis of Recirculating Perfusion Systems, With Application to Cryonic Suspension	\$2.50	_____
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The Cost of Cryonics	\$3.00	_____
Freezing of Living Cells: Mechanisms and Implications	\$3.00	_____
Will Cryonics Work?	\$4.00	_____
Her Blue Eyes Will Sparkle	\$1.00	_____
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Many Are Cold But Few Are Frozen: A Humanist Looks at Cryonics	\$2.00	_____
A Stunning Legal Victory	\$2.00	_____
What You Can Do	\$9.00	_____
Reviving Cryonics Patients	\$7.00	_____
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Slide Presentation:		
Suspension Members	\$200.	_____
All Others	\$350.	_____

Gift Items

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Alcor Sweatshirt, Size: _____	\$17.00	_____
Alcor Mug	\$6.00	_____
Alcor Patch	\$5.00	_____
Alcor Bumper Sticker	\$2.00	_____
Lapel Pin	\$5.00	_____
Tie Clasp	\$5.00	_____
Hat Pin/Broach/Stick Pin	\$5.00	_____
		Total _____

The literature above can be ordered by using this form, or by telephone with Mastercard or Visa by calling Alcor: 1-800-367-2228 (toll free).

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Please pay by check, money order, or credit card.
 Overseas orders require an additional 10% (of total) for shipping.
ALCOR, 12327 Doherty Street, Riverside, CA 92503

Advertisements, Personals, Meetings and Announcements

Advertisements And Personals

The Alcor Life Extension Foundation and Cryonics reserve the right to accept, reject, or edit ads at our own discretion and assume no responsibility for their content or the consequences of answering these advertisements. The rate is \$8.00 per line per month (lines are approximately 66 columns wide). Tip-in rates per sheet are \$200 (printed one side) or \$240 (printed both sides), from camera-ready copy. Tip-in ads must be clearly identified as such.

MARY NAPLES, CLU and BOB GILMORE — CRYONICS INSURANCE SPECIALISTS. New York Life Insurance Company; 4600 Bohannon Drive, Suite 100; Menlo Park, CA 94025. (800) 645-3338.

J.R. SHARP — INS. BROKER — ALL TYPES OF INSURANCE, ANNUITIES, LIVING TRUSTS and LIFE TRUSTS. Assisting Alcor Officers & Members since 1983. P.O. Box 2435, Fullerton, CA 92633. (714) 738-6200 or FAX (714) 738-1401.

EXTROPY: The Journal of Transhumanist Thought, #9. Hans Moravec on Time Travel and Computing. Plus: Persons, Programs, and Uploading Consciousness, Nanotechnology and Faith, Extropian Principles 2.0, Exercise and Longevity, Genetic Algorithms, reviews. \$4.50 from Extropy Institute; PO Box 57306; Los Angeles, CA 90057-0306. E-mail info from more@usc.edu.

Do you want to keep up with science and technology bearing on cryonics? *PERIASTRON* is a science newsletter written by and for cryonicists, only \$2.50 per issue. *PERIASTRON*, PO 2365, Sunnyvale CA 94087.

"I'D RATHER BE DEAD THAN READ?" — NO WAY! Read *Venturist Monthly News* — News about various cryonics topics — send for free sample copy — Society for Venturism; 1547 W. Dunlap; Phoenix, AZ 85021.

LIFE EXTENSION FOUNDATION OF HOLLYWOOD, FLORIDA provides members with "inside" information about high-tech anti-aging therapies. For free information call 1-800-841-LIFE.

Meeting Schedules

Alcor business meetings are usually held on the first Sunday of the month (July, Aug., & Sept.: 2nd Sunday). Guests are welcome. Unless otherwise noted, meetings start at 1 PM. For meeting directions, or if you get lost, call Alcor at (714) 736-1703 and page the technician on call.

The SUN, OCT 4 meeting will be at the home of:
Marce & Walt Johnson
8081 Yorktown Avenue, Huntington Beach, CA

Directions: Take the San Diego Freeway (Interstate 405) to Beach Blvd. (Hwy 39) in Huntington Beach. Go south on Beach Blvd. approximately 4-5 miles to Yorktown Ave. Turn east (left) on Yorktown. 8081 is less than one block east, on the left (north) side of the street.

The SUN, NOV 1 meeting will be at the home of:
Tanya Jones and Ralph Whelan
11241 Heathrow Dr., Riverside, CA

Directions: Take the 91 to Riverside, and get off going south on La Sierra, which is on the east side of Riverside. Go right on Indiana to Wickham. Go left on Wickham to Heathrow. Go left on Heathrow. 11241 is about 2/3 of the way down the street, on the left. NOTE: Tanya and Ralph have four (4) cats. If you are allergic, take precautions.

There is an Alcor chapter in the San Francisco Bay area. Its members are aggressively pursuing an improved rescue and suspension capability in that area. Meetings are generally held on the second Sunday of the month, at 4 PM, followed by a potluck. Meeting locations can be obtained by calling the chapter's Secretary, Lola McCrary, at (408) 238-1318 or (E-mail) Lola@lucid.com.

The SUN, OCTOBER 11 meeting will be held at the home of:
Ralph Merkle and Carol Shaw
1134 Pimento Ave., Sunnyvale, CA

After the business meeting and potluck there will be an *Introduction to Cryonics* talk at 7 PM, followed by a question and answer period.

Directions: Take US 85 through Sunnyvale and exit going East on Fremont to Mary. Go left on Mary to Ticonderoga. Go right on Ticonderoga to Pimento. Turn left on Pimento to 1134 Pimento Ave.

Alcor's Souther California chapter will meet at 2:00 PM on October 18, at the home of Marcelon and Walt Johnson. Their address is 8081 Yorktown, in Huntington Beach; tel: 714-962-7898. Directions: Take the 405 to Huntington Beach and exit at Beach Blvd. going south. Go 2.5 miles to Yorktown and turn left. 8081 is about 1/2 block down, on the left.

The Alcor New York Group meets on the the third Sunday of each month at 2:00 PM, at 72nd Street Studios. The address is 131 West 72nd Street (New York), between Columbus and Broadway. Ask for the Alcor group. Subway stop: 72nd Street, on the 1, 2, or 3 trains. If you're in CT, NJ, or NY, call Gerard Arthus for details at (516) 689-6160, or Curtis Henderson, at (516) 589-4256.

Meeting dates: Oct. 18, Nov. 15, Dec. 20, Jan. 17.

New York has a newsletter, its members are working aggressively to build a solid emergency response capability with full state-of-the-art rescue equipment, two Alcor Certified Tech's, and four State Certified EMT's.

The Alcor New York Stabilization Training Meeting meets on the second and fourth Sundays of every month, at 2:30 PM, at the home of Curtis Henderson. The address is: 9 Holmes Court, Sayville, L.I. For details call Curtis at the above number.

Alcor Indiana has a newsletter and a full local rescue kit, and two of the members have taken the Alcor Transport course. If you are interested and in Indiana, Illinois, Kentucky, Ohio, or Michigan, the Indiana group meets in Indianapolis on the second Sunday of each month, at 2:00 PM. Call Steve Bridge at (317) 359-7260, or Richard Shock at (317) 872-3066 (days) or (317) 769-4252 (eves) for further information.

There is a cryonics discussion group in the Boston area meeting on the second Sunday each month at 3:00 PM. Further information may be obtained by contacting Walter Vannini at (603) 595-8418 (home) or (617) 647-2291 (work).

Alcor Nevada is in the Las Vegas area. Their meetings are on the second Sunday of each month at 1:00 PM in the Riverside Casino in Laughlin, Nevada. Free rooms are available at the Riverside Casino on Sunday night to people who call at least one week in advance. Directions: Take 95 south from Las Vegas, through Henderson, where it forks between 95 and 93. Bear right at the fork and stay on 95 past Searchlight until you reach the intersection with 163, a little before the border with California. Go left on 163 and stay on it until you see signs for Laughlin. You can't miss the Riverside Casino. For more information, call Eric Klien at (702) 255-1355.

There is an Alcor chapter in England, with a full suspension and laboratory facility south of London. Its members are working aggressively to build a solid emergency response, transport, and suspension capability. Meetings are held on the first Sunday of the month at the Alcor UK facility, and may include classes and tours. The meeting commences at 11:00 A.M., and ends late afternoon.

Meeting dates: Oct. 4, Nov. 1, Dec. 6, Jan. 3.
The address of the facility is:
Alcor UK, 18 Potts Marsh Estate, Westham, East Sussex

Directions: From Victoria Station, catch a train for Pevensy West Ham railway station. When you arrive at Pevensy West Ham turn left as you leave the station and the road crosses the railway track. Carry on down the road for a couple of hundred yards and Alcor UK is on the trading estate on your right. Victoria Station has a regular train shuttle connection with Gatwick airport and can be reached from Heathrow airport via the amazing London Underground tube or subway system.

People coming for AUK meetings must phone ahead — or else you're on your own, the meeting may have been cancelled, moved, etc etc. For this information, call Alan Sinclair at 0323 488150. For those living in or around metropolitan London, you can contact Garret Smyth at 081- 789-1045, or Russell Whitaker at 071- 702-0234.

Other Events of Interest

The annual Alcor Turkey Roast will be held December 6, 1992. See the notice on page 1 of this issue.

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1-800-367-2228 (toll-free, non-members only) or 1-714-736-1703 (members).**