

CRYONICS

OCTOBER 1982

ISSUE # 27

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EDITORIAL MATTERS

It may have been unclear to some of our readers that the September issue (#26) of CRYONICS was under the guest editorship of Thomas Donaldson. We apologize for any confusion in this matter.

Elsewhere in this issue we are publishing the first part of the results of the Cryonics Poll which we included with the July issue. However, we received two questions from readers which more properly belong under Editorial Matters (because the answers have to do with you sending us money and we don't want anyone to miss something as important as that).

#1. When we asked if readers had read the IABS booklet, Cryonics: Threshold to the Future, several wanted to know what it was and how they could get it. This booklet is a 20-page introduction to the subject of cryonics and answers some of the basic questions which we are asked every day: "How can someone who is dead be revived?" ---- "How much damage is done by freezing?" ---- "Why would anyone want to live forever?" etc. It is the first thing for you to hand to dubious friends and relatives when you lack the words to answer their questions. It is great to donate to your local public or college library, so other interested people may find it and read it. And you might learn something from it yourself. We are presently working on a new edition; but Mike has a few copies left of the previous edition. To receive a copy, send \$1.00 to the IABS address.

#2. One subscriber commented that it was not fair that only members of BACS, Alcor, and IABS were allowed to take advantage of the gift subscription offer. He was absolutely right. Now any subscriber to CRYONICS may give a one-year gift subscription to a friend, relative, or library for \$5.00. This gift may only be given to someone who is not a current subscriber (no, friends, you cannot renew each other's subscriptions this way) and the receiver must live in the United States. We must receive all gift subscription checks (made out to The Institute for Advanced Biological Studies, Inc.) by November 30th, 1982.

IABS REACTIVATES CRYONICS COORDINATOR PROGRAM

As a few of our more seasoned readers may remember the Cryonics Society of New York (now inactive) once sponsored a "cryonics coordinator program" to stimulate grass roots interest and activity on a nationwide basis. Due to CSNY's coordinator program and their widespread distribution of literature many of the people who currently occupy research or leadership positions in cryonics became involved. We think the cryonics movement could still benefit from this type of effort.

What is needed is a network of people who will act to catalyze interest on a local level. We need people who are willing to distribute literature to friends and acquaintances, allow their addresses to be freely given and meet with and organize people in their area.

For these reasons IABS is reactivating the coordinator program. The IABS Cryonics Coordinator program will be open to interested individuals living anywhere in the United States except in the following areas: Greater Los Angeles/Orange County, San Francisco/Oakland and Hollywood/Miami. We are excluding these areas because there are already cryonics organizations with promotional campaigns and information services present. All other areas of the country are open to the program and interested

people should contact us at the address at the end of this article for information on how they can participate.

The requirements for an IABS Cryonics Coordinator are as follows:

- 1) A preliminary interview conducted by phone;
- 2) Permission to publish the Coordinator's name and address in CRYONICS and to refer interested individuals to the Coordinator via the mail (we would like to publish Coordinators' phone numbers as well, but this is not required);
- 3) Completed personal arrangements for cryonic suspension.
- 4) A willingness to write and talk to people about cryonics using liberal amounts of common sense and patience.

IABS will supply Coordinators with low cost bulk copies of CRYONICS as well as other promotional material from time to time. We hope to be issuing a new edition of our booklet Cryonics: Threshold to the Future within a few months. We hope to make this available to Coordinators at cost. In the more distant future we have plans for a media package and basic organizational information. We are of course always willing to advise Coordinators, or anyone for that matter, individually on how to increase interest in their area. If you would like information on the IABS Cryonics Coordinator Program write or call:

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LETTER TO THE EDITORS

Dear Editor,

During the past year I have been collecting an extensive immortalist library. Buy and sell and spread the word through easier access to information is my intention. I was hoping you might help me to reach others and perhaps fill a void in the movement. I now have almost all of the books on the Committee for the Elimination of Death's list, plus quite a few others. Perhaps the readers could help me to locate hard to find titles like Prehoda's Suspended Animation or Nelson's We Froze the First Man. For many of the titles I have duplicate copies and I would be happy to sell or trade with other immortalists. Anyone who is interested should write me at 1697 Locksley Drive, Cincinnati, Ohio 45230.

Sincerely,
Gregory S. Noe'

OPEN HOUSE WEEKEND

The weekend of September 10th provided an opportunity for about thirty people from Southern and Northern California to get together, talk over issues of interest and inspect progress at Cryovita Labs.

A small but enthusiastic contingent from the Bay Area was present and included Art Quaife, Frank Rothacker, John Day and Norm Lewis. The weekend opened with a reception at Marcelon Johnson's home in Huntington Beach. The reception was the best attended of any of the events and thanks to Marce's excellent cooking and great hospitality was the social high point of the weekend.

Saturday an open house was held at Cryovita so that cryonicists and their guests could wander around and check out the facilities close up. Much of the discussion during the tour revolved around research work which has been going on at Cryovita steadily over the past year. Mike Darwin discussed the major project currently underway which involves extended glycerol perfusion of cats placed on cardiopulmonary bypass with and without 24 hours of cold ischemia (no blood flow). Jerry Leaf explained that much additional information on appropriate perfusion procedures has been gained from these studies. Most of the visitors seemed very impressed and surprised by the wide range of equipment and facilities available at Cryovita: a complete animal operating theatre, (in addition to the operating room for human use), light and electron microscopes, dialysis equipment, extensive analytical instrumentation, and a wide range of cryobiological gear including two Linde controlled rate freezers and an assortment of cryogenic dewars.

Saturday evening everyone gathered again for a pitch-in graciously hosted by Marce Johnson. The evening was a productive one with people forming small groups to discuss business and technical issues of mutual interest.

In contrast to Friday and Saturday which were somewhat overcast, Sunday was a beautiful sunny day. Despite the obvious temptation to head for the nearest beach or pool 28 people showed up in Brea for the IABS/Alcor and Trans Time meetings. A number of important issues were discussed at the meeting including making members accountable to cryonics groups for payment of suspension fees. There was an unexpected but probably useful digression by Herman Earl on how to make cryonics groups financially accountable to their members. Herman raised the issue of the Alcor investment club and the fact that he has been unable to obtain money he invested several years ago despite repeated requests made to the Club's Treasurer, Laurence Gale. It was decided to appoint an audit committee and to resolve Herman's complaint in as timely and direct a manner as possible.

Saul Kent discussed promotional strategies in life extension and offered a progress report on both life extension and cryonics efforts currently underway in Florida. It appears that a shakeup of Florida management is likely sometime soon and that cryonics progress may well pick up in South Florida as a consequence. We look forward to hearing more from the Cryonics Society of South Florida in the near future. The meeting then adjourned and the group broke for lunch.

When things got rolling again, it was Trans Time's turn to chair the get-together. A variety of business and administrative issues of interest to both Southern and Northern California people were discussed and space does not permit mention of all of them. It seemed clear that the item of most interest was the continued care of two of the suspension patients currently in storage at Trans Time' facility who now have no funding. This was the longest and perhaps most heated part of the meeting.

A number of strategies were discussed, and it was difficult to reach a consensus on exactly how these patients should be cared for. IABS announced that they had secured enough money for the purchase of a cryogenic dewar to place the patients in (as whole body donors) and that plans were underway to order such a container from a reliable vendor. The plan would then be to transfer the patients to the new container and then relocate them to Los Angeles for continued long term storage.

Objections were raised to this approach with Trans Time expressing concern over damage to economies of scale which might result with relocation of these two patients. No firm decision was reached, and it is anticipated that a number of weeks of continued discussion will be required before any course of action is decided upon.

At the conclusion of the Trans Time meeting the Open House weekend was adjourned and people wandered back to Cryovita where a few hardcore individuals continued the conversation into the wee small hours of Monday morning.

Perhaps the single most impressive event of the entire weekend was the demonstration by Frank Rothacker of a cryogenic pump which he has constructed out of inexpensive and readily available materials. This simple pump will allow Trans Time to empty a large, dual patient MVE dewar of liquid nitrogen in approximately 45 minutes. The availability of such a pump at Cryovita would allow one man to completely drain the MVE A-2542 multipatient neurostorage dewar into the A-8000 backup dewar and transfer all patients single handedly in the event of a vacuum failure. Such a pump will also allow Trans Time to take bulk delivery of liquid nitrogen and reduce nitrogen costs from 42¢ to less than 15¢ per liter. Frank is to be commended for his fine effort and encouraged to continue with such innovations in the future.

For those of you who attended the Open House and are looking forward to getting together again, and especially for those of you who were unable to attend, we have word that the Chamberlains will definitely be hosting another Lake Tahoe extravaganza -- this time in the Spring! Linda Chamberlain has promised us complete details for the November issue of CRYONICS. So, start preparing for it. We look forward to seeing you there!

.....

"I am jealous of everything whose beauty does not die.
I am jealous of the portrait you have painted of me. Why should it keep what I must lose? Every moment that passes takes something from me, and gives something to it. Oh, if it were only the other way! If the picture could change and I could be always what I am now! For that - for that - I would give everything! Yes, there is nothing in the whole world I would not give! I would give my soul for that!"

-- Oscar Wilde
The Picture of Dorian Gray

CRYONICS AND LIFE: OPENING ADDRESS AT THE JOINT IABS/ALCOR MEETING
HELD SEPTEMBER 12th, 1982

by Michael Darwin (Federowicz)

Life is very painful. Sometimes, when I am cut up and hurting inside, I wonder why we cling to it with such determination. 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 backrooms 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 may dream dreams and fantasize but we must not stop there. 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 hearts 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.

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 ten 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 towards victory. We have made that step. □

SCIENCE UPDATE by Thomas Donaldson, Ph.D.

LEARNING AND MEMORY IN MOLLUSKS AND COCKROACHES

As yet we lack any good ideas at all about how our memories are stored. Circumstantial evidence suggests that permanent encoding of a memory will require the synthesis of protein, since drugs which block protein synthesis will severely impair memory. Of course that would only be a necessary, not a sufficient condition for the formation of a permanent memory: we still need to know how this protein might act to produce the memory every time its recall is evoked.

While no one as yet has any real answer to these questions, two recent papers present some quite interesting data on these two questions.

In SCIENCE 9 (215(1982)693) D Alkon et al report some observations of changes in the electrical properties of neurons in the mollusk Hermisenda crassicornis as a consequence of learning. Normally these animals will move towards a light source, but after a training session they can learn to

inhibit their normal response. The authors of this paper observed that from previous work neuronal changes occurred in the type B photoreceptors of the eye (each eye contains 3 such photoreceptors, which should suggest how simple these animals are!). They therefore studied changes in the electrical response of these cells occurring after learning.

When a voltage is applied to these cells, a current of K⁺ potassium ions will cross their cell membrane. There are two such currents, a current I_A which will rapidly cease, and another K⁺ current which occurs later and only slowly will cease. When the authors compared these cells, the cells from animals which had been trained not to seek the light with those which had not been so trained, they found that the I_A current was significantly reduced. Observers who did not know the origin of the cells could separate out those from animals which had been trained from those from animals without training on the basis of the strength of their I_A current.

This change in electrical properties of the cells comes from changes in Ca²⁺ currents which occur during the learning process and cause a prolonged change in the membrane properties. What this change may be of course remains unknown; the authors suggest that it is exactly the change which occurs with learning, and that in this reduction in the I_A current they are seeing the consequence in functioning of a nerve cell of the encoding of a simple memory.

A second paper gives us some additional information on the possible roles of protein production in memory encoding. For what is apparently the first time, DA Barraco et al have shown that at least one of the drugs which inhibit memory, puromycin, will work in cockroaches. (PHARMACOLOGY BIOCHEMISTRY AND BEHAVIOR 15 (1981) 489). We want to know if these drugs will prevent memory in species other than the mammals for several reasons. First of all, invertebrates such as insects and mollusks are much easier and simpler to work with than rats, mice or human beings. Second, both the similarities and differences of their memory processes from our own will shed much light on exactly how our own processes work.

In brief, Barroco et al trained cockroaches on a simple T-maze, and then gave them large doses of two well-known memory inhibiting drugs, puromycin and cycloheximide, afterwards. In mice both puromycin and cycloheximide will cause the animals to forget what they have learned, but the most interesting fact about this experiment is that ONLY puromycin had this effect on the cockroaches. Both drugs inhibit synthesis of proteins, but both also act differently. A second interesting fact is that on a much simpler task, habituation to the T-maze, the puromycin-treated cockroaches showed no loss of memory. This means that puromycin at least apparently acts specifically on more complex memories.

Of course we don't know what the meaning of this difference between the two drugs may be. Barroco et al suggest that puromycin may act in a much more specific way than simply to inhibit the production of all proteins: for instance, it may act on specific proteins which remain unaffected by CXM. It would be of great interest to study other measures of protein synthesis in learning in cockroaches, for instance the incorporation of labelled amino acids into proteins caused by learning, as scientists have already done for vertebrates. Possible connections between protein synthesis and change of membrane properties of neurons remain to be worked on.

CRYONICS ORGANIZATION LIST

Alcor Life Extension Foundation
4030 N. Palm #304
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(714) 738-5569

Bay Area Cryonics Society
7710 Huntridge Lane
Cupertino, California 95014
(415) 841-7681

Trans Time
1122 Spruce St.
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extension)
5047 Southwest 26th Dr.
Portland, Oregon 97201
(also handles many books on life
extension and futurism.)

WHAT YOU CAN DO -- PART II by Thomas Donaldson, Ph.D.PHYSICAL ARRANGEMENTS

Besides purely legal and paper arrangements there is a lot more you can do to arrange the physical necessities of suspension. In doing so, you have a major tool: REMOTE STANDBY.

As you may know, Trans Time has obtained all the equipment and supplies necessary to do a suspension and packed them all ready to transport by air to any location outside the Bay Area on short notice. Trans Time will do this if necessary after your legal death in any case, simply if you are a suspension member of one of the cryonics societies which has contracts with Trans Time. All cryonics societies now existing have some arrangements with Trans Time. Both BACS and ALCOR have a full contract by which Trans Time agrees to suspend every suspension member of their two societies. The Cryonics Institute has special arrangements by which you can arrange to be suspended by Trans Time as an individual, even though CI offers other options; similarly CSSF has such arrangements. The possibilities for Remote Standby therefore exist for every member of a cryonics society.

Even if you are the only one in your state to be a suspension member, there is at least one thing you can do to greatly improve your chances. You can arrange with Trans Time for Remote Standby services BEFORE LEGAL DEATH. Unlike Remote Standby after legal death, Remote Standby before legal death requires special financing arrangements, since money from life insurance or trusts remains unavailable so long as you remain alive...even if you are unconscious and terminal. It is possible to arrange to finance Remote Standby directly through Lloyds insurance brokers, or else to set up special trusts to pay the cost directly if you already own sufficient wealth to finance Remote Standby. Exactly how much is needed depends on your distance from California and the number of Trans Time personnel who will want on location to suspend you (a minimum of two). As an indication only, a Remote Standby to New York may cost about \$5000.

Remote Standby is very important. You may think you are all alone in your State, but you are not really alone at all. All the members of your cryonics society, all over the US, are at least potentially ready to help you, and even more particularly you can hire Trans Time to come to your aid with direct physical help.

What Remote Standby means is that in about 9 hours after you get into trouble you can have cryonicists present right in your own home to help out. Furthermore, even if you have two other cryonicists to help out in your state, you will still benefit quite considerably by Remote Standby services. In the first place, the two other cryonicists in your state will probably experience quite severe workload problems in making any preparations necessary for your suspension. For instance, it takes two people to load someone onto a respirator; there will be many errands to be run, for ice and to officials convincing them that all is in accord with the law. They will need help on the scene; it will very likely prove invaluable to have people there who have actually participated in suspensions before and know how to handle all the problems which can arise.

We must be clear on the point that even if you don't have Remote Standby, you can put something together which will be better than NOTHING AT ALL with the aid of any other cryonicists available nearby. If you are the only cryonicist in your State, without Remote Standby there is little you can do, but if there are other cryonicists it makes sense to do some further things even without Remote Standby. For instance, if you have at least 3 cryonicists, and probably more, you can start thinking about getting in some supplies and equipment. My own personal feeling, however, is that if the 3 of you can afford the costs of supplies and equipment, you can afford the cost of insurance for Remote Standby, so you shouldn't be thinking about these other things until Remote Standby is settled.

But let's suppose that you have worked out arrangements to bring a Trans Time team to your location. It then becomes appropriate to do still more. The very first step, which you are likely to find VERY time-consuming and frustrating, is to find a mortician who will cooperate to the extent needed to allow a Trans Time team to carry out a suspension at his mortuary. In my experience this is a very lengthy process, since many funeral directors and morticians are quite unwilling to deal with us. The only thing to do is to accept "no" answers whenever they are given and proceed on to the next funeral director on your list. We have already obtained some draft documents by which the funeral director will agree, in advance and in writing, to provide these services to your cryonics society and thus, indirectly, to you. You don't want to have him agree with you, because you will be dead and contracts between dead people cannot be enforced. What you want to do is to have your CRYONICS SOCIETY sign the agreement with the funeral director, but YOU will

have to find a funeral director who is willing to go, by yourself.

Next after that (or if there are enough of you, you can try doing these things simultaneously) is to start accumulating supplies. It's very important here that with Remote Standby YOU DON'T HAVE TO BE ABLE TO CARRY OUT A COMPLETE SUSPENSION IN ORDER TO SIGNIFICANTLY IMPROVE YOUR CAPABILITIES. If you arrange for Remote Standby, you will receive a list of all the supplies and equipment which the Trans Time team will bring. Besides these, there are other things too bulky to bring, but which may be helpful. Exactly what you try to get first will depend on both the money and energy you have available, and on the exact impact you want to have on your preparations. As a guide, I have the following comments:

If you look through the Trans Time list, you will discover that the Trans Time technicians will bring quite large quantities of water with them. Water is very heavy and costs very little. It also can be stored for long periods without going off. Freight costs are a quite substantial part of the cost of bringing Trans Time agents to your location, and a very high part of these freight costs consist of the cost of the water. One way to reduce these charges, and therefore to reduce the cost of Remote Standby both in terms of the insurance needed and the cost billed to your estate, is to keep the water on hand. Pharmaceutical grade water can be obtained from Cryovita Laboratories in the United States. One of the first sorts of supplies to buy is that. The necessary water will cost you several hundred dollars: if there are 3 cryonicists available in your State, that means about 100 dollars each. That's not very much.

Once you've bought enough water, you can think about some other things. One of the second most useful items to buy is a heart-lung resuscitator together with the necessary ancillary equipment. This is a lot more costly: you can expect to pay about \$2500 for these in toto; if there are 3 of you, that's about 700 dollars each. Yes, that seems stiff; but here are some suggestions. The way to handle this problem is not to sit by the road pining that a Mercedes-Benz is not available to take you where you want to go, but to think of ways to share out the cost, at a somewhat lesser capability. Find the 7 cryonicists closest to where you live, and find out which of these cryonicists is most centrally located. Write to them. Form a corporation, or a contractual agreement between the different cryonics corporations which you have all formed already (remember?) by which you will all club together to buy a heart-lung resuscitator and store it in the most central location. If the closest cryonicists won't join, then write to some who are farther away. The method is clear; the point is that RIGHT NOW, the closest cryonics HLR is in California, but with a little effort you can arrange to keep one a lot closer, maybe even exactly in your home town. It may take 9 hours to bring you an HLR from California while it only takes 3 hours to bring you an HLR from a town in the next state....or perhaps even less. By making these arrangements you will gain valuable time.

Furthermore HLRs and other medical equipment are occasionally available for much less than \$2500 secondhand or at auction.

You needn't stop just at water and an HLR. There are other things, such as an operating table and lights, which will help out a good deal, especially since the team will not be able to bring them. As time goes on, you can spend additional money on upgrading your local capability: the idea of buying some of the supplies needed, and storing them in a central location, is quite open-ended, and if the number of cryonicists in your area grows significantly you can respond by buying more things, duplicating some of your equipment to be kept much closer to members than before, and moving up slowly to a full

suspension facility. The essential point to remember is that because Trans Time already has all the necessary equipment, you can improve your situation quite considerably by a relatively small expenditure of money. Even just getting in water will lower the cost of Remote Standby considerably. Any sort of equipment at all means that much less which the Remote Standby team must bring.

GROWTH

I said before that nothing in what I will say needs any increase in the number of cryonicists in your area. You may have to deal with officials of all kinds (certainly unpleasant) but not at all with members of the general public. You don't have to beg endlessly for people to join your cryonics society. But something needs saying about this point at the close of my discussion. It is this: nobody wants to join a society whose sole activity consists of begging other people to join. By acting that way the most you will do is to seem foolish and ineffective. But if you and the cryonicists nearby set about seriously trying to increase capability in your area, even in small ways such as legal preparations and the acquisition of a supply of WATER, you will present any prospective cryonicists who have not joined but may be thinking of doing so with a quite different picture. You will be a group of people, small of course, who are systematically setting about all the tasks needed to improve your capability. You will be declaring BY ACTS RATHER THAN WORDS that people CAN do something, even isolated where you are, to increase their chances for suspension. Not only this, but the more facilities and arrangements you prepare in your area, the stronger the case will be for other people to join with you. By doing all of these things, you will have made that much less to do for anybody who wants to join you.

If you are serious about cryonics and want to increase your chances, the best thing to do is to start on these things and FORGET how few cryonicists there are in your state.

"FINAL" ON REMOTE STANDBY INSURANCE

Art Quaife

For several years now, Dr. Thomas Donaldson and myself have been negotiating with Crawley Warren (a Lloyds of London broker) to obtain a group Remote Standby insurance package. A number of Cryonics readers returned our questionnaire to obtain this insurance. After mailing these questionnaires to Crawley Warren, they responded that their underwriters have lost interest in the proposal; they do not believe we have enough insurable applicants to make it worth their while. It appears that the group policy is dead for now (or in profound hypothermia).

Persons wishing to obtain Remote Standby insurance may be able to obtain the same individual policy that Dr. Donaldson has obtained from another Lloyds broker:

Mr. John H. Naylor
F. Barkworth & Co. Ltd.
62-63 Fenchurch St.
London, England EC3M 4AQ

When writing, you can refer to Dr. Donaldson's policy #16526/9/8. This policy may cost you a little more, and the wording needs to be "Americanized", but the precedent does exist that they have already issued this policy.

GOALS FOR CRYONICS

Would you tell me, please, which way I ought
to go from here? asked Alice.

That depends a good deal on where you want
to get to, said the Cat.

I don't much care where, said Alice.

Then it doesn't matter which way you go,
said the Cat.

Lewis Carroll--Alice's Adventures in Wonderland

The obvious wisdom of the Cat's statement is that you can't plan your route until you know where you want to go. The ideas behind cryonics have now been around for over thirty years. During this time several routes have been taken. Perhaps, it is time to stop and reconsider where we want to go. We can also think about the routes we have taken, where they have led, and to plan new routes for the future.

Let us begin by specifying our goals. How should cryonics be practiced in contemporary society? Consider these goals:

1. Cryonics services should be readily available to anyone who wants them. Suspensions should be available in all hospitals and other major medical facilities. Paramedics and other emergency personnel should be trained and equipped to begin suspension procedures. The public should be educated about how to utilize and assist with suspension procedures.
2. Cryonics research should be conducted on the same scale as other major areas of medical research.
3. Funding for cryonics treatment should be available through both public and private insurance programs.
4. Our laws should be changed to take cryonics into account. Individuals should have the right to request and receive suspension treatment before legal death. Individuals should also have the right to refuse suspension treatment. Family members should have a right to information about a suspended relative's care and should be able to participate in decisions about the care. The quality of cryonics treatment should be assured by the same controls that are appropriate for other areas of medical treatment. Money that has been set aside for cryonics services should be protected by the same controls that are appropriate for other financial areas such as banking and insurance. Suspendees should regain control of their assets after reanimation.

Suppose that cryonists could have things exactly the way they wanted them. Would the above goals be satisfactory to all? Probably not. The goals imply a high level of public support and involvement. This will likely lead to a greater degree of governmental control than some cryonists would like. Suspendees do not vote. What if the government passed a law restricting reanimations? There could also be such a thing as too much immortality. Not only would your friends and relatives become immortal, but so would your enemies! What would happen to the existing cryonics companies? Would they go out of business as hospitals took over?

After a goal has been set, the next step is to plan a strategy for achieving the goal. Cryonists have used two basic strategies:

1. The direct approach--go to the leading medical and scientific authorities and convince them to support cryonics.
2. The do-it-yourself approach--cryonists buy the equipment and supplies, and do the suspensions themselves.

The direct approach failed. The medical profession has always been highly resistant to change, especially changes initiated from outside of the medical profession. Surgeons were against the use of anesthesia. They were against sterile operating techniques. Doctors were against inoculations, against medical insurance, and against group medical practice. Anesthesia was rejected because it had been discovered by a dentist, and dentists were not considered professionals by the surgeons of the time. The inertia of the medical profession is compounded by today's complex regulatory machinery. For example, if an anti-aging pill were invented today, we would all be dead before the FDA would permit us to use it.

The do-it-yourself approach to cryonics has been fizzling and sputtering along for fifteen years. At one time, cryonics organizations were springing up all over the country. Today, most of them are gone. The few remaining organizations have gradually increased their capabilities, but still fall far short of existing medical procedures. At the rate we are going, universally available cryonics will not come for another century.

Perhaps, we can learn some lessons from the home computer industry. The home computer was born in a small workshop in Albuquerque, New Mexico. At first, it was sold only to electronics hobbyists. It was sold as a kit that had to be wired and assembled. The demand soon grew to cause back orders of several months. Computer clubs sprang up around the country in much the same way as the cryonics societies sprang up a few years earlier. Numerous individuals set up small companies to manufacture computer accessories. The early companies soon expanded and improved their products. The new products were geared to a wider market segment, and the demand for home computers became even greater. Soon large established manufacturing companies began to notice what was happening. Radio Shack, Heathkit, and Atari started selling home computers. Finally, last year,

the best established and most prestigious computer company in the world, IBM, entered the market.

Home computers are an example of the benefits of the do-it-yourself approach. There was a demand for home computers along with the technology to produce them. The established companies failed to recognize that. They felt that there was too little demand from individual consumers and that the development of an inexpensive computer might compete with their other products. Also, their distribution methods were not geared to selling to individuals. Under these circumstances, the direct approach of persuading IBM to manufacture home computers would have been as fruitful as trying to talk the head of the AMA into joining a cryonics society.

Do-it-yourself computers were a spectacular success. Do-it-yourself cryonics has been a spectacular flop. Why? Early home computers were a tangible product that the consumer could take home, plug in, turn on, and try out. The product sold itself, and the word spread. Buyers and sellers of home computers could deal directly with each other without depending on the cooperation of the established commercial computer companies.

Cryonics depends heavily on the established professions. Doctors must sign death certificates. Hospitals must release bodies. Morticians must sign interment forms. Chemicals and instruments cannot be sold without a doctor's prescription. Imagine how far the home computer industry would have gone if computer parts could be sold only with a prescription from a licensed computer technician.

Cryonists need the cooperation of the established medical profession. The question is how to get it. What about medical consumer groups? What lessons have they learned about making changes in the medical profession? What about legislative lobbyists? How well can they deal with medical issues? It took doctors sixty years to accept anesthesia, but only ten years to accept medical insurance. What is the best way to speed up the acceptance of cryonics?

Cryonics will not advance without greater public demand. Why is the demand for laetrile so much greater than for cryonics? Is the scientific justification for laetrile greater? Why do useless products, such as "feminine sprays" sell so well? What are the subconscious factors that turn potential consumers away from cryonics and how can these subconscious factors be overcome?

Worldwide, there are about 200 cryonists. Is that the true extent of the market? Why are they scattered about the way they are? Could a marketing expert find a way to develop a larger segment of the market?

The most important thing that cryonists must do is establish goals and priorities. From there, strategies can be planned. If one plan doesn't work, we must find out why, and then find another plan that will work.

-- Frank Rothacker

CRYONICS POLL RESULTS -- PART I

by Steve Bridge

Introduction

We want to thank the 66 subscribers who sent in their poll responses. This is about 39% of our subscribers, which is a much higher rate of return than for most magazine polls, and it is also high enough to be statistically valid. We especially thank those readers who took the time to give detailed answers and comments, several of which extended to added pages. Cryonics is obviously made up of a fascinating and widely varied group of people. We wish we could meet you all. Those of you who did not respond are still welcome to send us your comments and suggestions for improving our magazine or the movement as a whole. You still have your self-addressed stamped envelopes which we sent with the polls, and we would hate to see them go to waste. Better yet, send us an article for publication. We will give you plenty of suggestions in these two poll summaries.

Before I get into the actual discussion of the poll results, there are several reader's questions or comments which I feel need an immediate and separate response.

A. For your questions about the gift subscription to CRYONICS and your questions about how to get the booklet, Cryonics: Threshold to the Future, see Editorial Matters, page 1.

B. *One reader wanted to know if there was a cryonics publication mailing house where one could get diverse publications.* At this time there is no such place, but see Gregory Noe's letter elsewhere in this issue for one possible source. Also, Art Quaife, President of Trans Time, has a few copies left of The Prospect of Immortality. They are available for \$4.95 (California residents add 6% sales tax.), payable to Trans Time. The address is 1122 Spruce St., Berkeley, CA 94707.

C. *Someone wanted a list of cryonics group names with addresses and telephone numbers.* Such a list is provided elsewhere in this issue.

D. *A physician wrote, "Why all of the carping at the Cryobiology Society? Why doesn't everyone just join it and take it over? It can't be a very large organization?"* Apparently we have not been very clear about this issue in our discussions of our problems with the Society for Cryobiology. It seems there are several cryobiologists who worry that we actually would take it over. In the past three years several cryonicists have tried to join the society, but they have received no response. The problem is that the small group of people who actually run the Society have made some of their own "unofficial" rules concerning whom is to be accepted for membership. First, each applicant must be sponsored by someone who is already a member. At present, if the sponsor is one of the few Society members who are known to be involved with cryonics, the application is simply ignored. Second, each applicant is required to submit a curriculum vitae, listing educational and research background to prove professional or research student status. Such a restriction immediately limits the number of cryonicists who could qualify for membership to less than ten. An attempt by the Society's Board of Governors to make official these rules and this

power to limit the membership was blocked (at least temporarily) this summer at the Society's Annual Conference. Jerry Leaf, one of the few public cryonicists who is a member of the Society for Cryobiology, will report on this meeting and other related developments in the next issue of CRYONICS.

E. *Another reader strongly suggested that we totally drop the use of the word "cryonics."* It is perhaps an unfortunate and confusing name in some ways, particularly in the public confusion with "cryogenics." However, it is a name which is in general use and it appears we are more or less stuck with it. "Cryostasis" has been suggested as an alternative, but it never seemed to catch on. Does anyone else have comments or suggestions on this issue?

F. *At least one reader appears to be confused about the relationship between CRYONICS and the various cryonics societies.* This magazine is a publication only of the Institute for Advanced Biological Studies, Inc. While we work closely with other societies, such as Alcor and BACS, and occasionally print announcements for them, we do not have direct influence over their policies. If you have complaints about your society, write to that group's Board of Directors. (We suggest you write to the Board with complaints rather than to an individual. A letter to a Board of Directors legally must be read to that Board, and so will get more public attention.)

G. *Four readers complained about the size of print in CRYONICS and wanted us to return to an 8½" X 11" format.* It is strictly a matter of money. Returning to the larger format would almost double our printing costs and greatly increase both postal costs and collating time. We can't afford it now, but we will consider it again if we ever grow large enough.

H. *"Where are the opposing views on neuropreservation?" writes one anti-neuro reader.* Yes, indeed, where are they? Several people have told us in person that they disagreed with certain articles. We have always asked them to write us an article or letter for publication which will give their point of view. They have rarely done so. Readers can hardly expect a publication edited by only two people to give all sides on all issues without a lot of contributions from other writers. If you want your opinion expressed, then you write the article. We will print it.

I. *We got comments from a female writer who didn't think our writing was good enough and from a retired male who thought cryonics needed more mature leadership.* We have no quarrel with either one of those comments. We would love to have help with both the writing and the leadership. I suspect the other cryonics groups feel the same way. Won't you make yourselves known to us and volunteer your services or send us articles?

J. *There was some comment from readers who felt isolated by distance from other cryonicists.* If you would like to correspond with other subscribers, send us a short letter and we will print it with your name and address. Or if you just would like to find out if there are other cryonicists living in your area, write to us and we will advise you privately.

The Results Themselves

I am attempting to summarize this data as much as possible so the reader does not get buried under a mass of statistics. The complete set of statistics is available, however, for those of who love tables and numbers. Send \$3.00 for a photocopy to Steve Bridge, 1720 N. Layman, Indianapolis, IN 46218.

66 polls were returned to us, but the total number of answers is larger for many questions because of multiple responses.

1. *Are you currently a member of a cryonics organization?*

57-Yes

9-No

2. *Have you previously been a member of an organization which no longer exists?* 20-Yes. Cryonics Society of California had 9; CS New York and the Life Extension Society each had 4. Other groups mentioned were CS of France, CS of Michigan, CS of Indiana, CS of Illinois, Cryonics Youth Association, and the Student Cryonics Society.

We would be happy to hear from any former members who would like to write a short history or reminiscence of one of these organizations.

3. *Are you signed up to be frozen?* 41-Yes. 16-members of an organization who are not signed up.

Note: In the rest of this article, I will occasionally divide the respondents into three groups:

Suspension members (41)

Members not signed up (which I will call just "members") (16)

Non-members (9) (However, some questions have 10 answers, because a husband and wife used one form and gave dual answers to some questions.)

Unsigned (i.e., members plus non-members----total of 25)

4. *If you are not signed up, what is the most important reason for your reluctance?* 10 of the members and 3 of the non-members circled "financial." 2 members and 3 non-members indicated "inadequate ratio of benefit to risk." The other three answers offered in the poll got only minimal response.

"Other" included 2 overseas subscribers who mentioned the problems involved in living too great a distance from an organization. Also:

Lack of confidence in survival of movement --2

Lack of confidence it will work from a legal and economic standpoint.

Lack of confidence in the abilities of current organizations to carry out their contracts.

5. *How did you first hear about cryonics?*

Newspaper or magazine --24 (I wish we had asked for specifics.)

The Prospect of Immortality --14

Television --10

Friend or relative --9

Other: Arrived at the logic independently and went looking for others.-2
 Rumor that Walt Disney was frozen.
Man Into Superman.
 College lecture by Robert Nelson.
 Info table at Libertarian Convention.
 Entry in Reader's Guide to Periodicals under "Immortality."

6. *In what year did you first hear about cryonics?*

It is clear when the heyday (so far) was for cryonics. Of the 41 Suspension Members, 28 of them (68%) first heard about cryonics before 1969. In contrast, of the 25 unsigned people, only 10 (40%) had heard of cryonics before 1969. (Some of the unsigned wrote that they still planned to become suspension members someday.)

7. *How many times did you hear about cryonics before you contacted someone?*

These answers were especially surprising to me. 20 of the Suspension Members and 8 of the members said "once." Apparently to some people this was such a powerful idea that they immediately became deeply interested. In addition, 6 Suspension Members actually said "none." This answer generally meant that they went seeking people on their own or that they were immediately involved by a friend. 7 more Suspension Members answered "2" or "3".

My experience in getting involved in cryonics was completely different. I discussed it at least weekly for about a year before I decided to become involved even minimally. This is obviously not a typical situation; but then how many people get that sort of opportunity for discussion? Perhaps we are easily getting the people to whom the idea is immediately striking, but getting very few of the people in whom the idea must be carefully nurtured through careful thought and discussion. Is it possible that those 34 people are the only ones in the world who could be persuaded to contact someone at first listen and that everyone else needs a great deal of persuasion? In that case, we need to work out systems for talking to more people for longer periods of time. And eventually we need to make cryonics a fitting subject for cocktail party conversation, so that people could start persuading themselves. After all, how many people are converted to a new religion after one hearing (not counting those for whom the alternative was death at a sword)?

8. *Why did you first become involved in cryonics?*

9. *What is your prime motivation for currently being involved in cryonics?*

There was not a great deal of difference between the answers for these two questions. The most common answer was a combination of "desire not to die" and "desire to see the future." On #9, "desire not to die" was circled by 31 Suspension Members and "desire to see the future" by 17. Surprisingly, perhaps, the distribution of answers for members and non-members was almost the same, with one interesting difference. 7 non-members circled "desire not to die," but only 1 mentioned "desire to see the future" as a reason. Perhaps this lack of a strong positive goal (as opposed to merely "desire not to die"--so what do you do after you don't die?) is part of what keeps these people from being more involved. Indeed, 3 Suspension Members accen-

tuated the positive by putting for "other" some variation on "desire to live."

Apparently the "they're all afraid of decay" line used by some of cryonics's critics is a myth with no basis in fact. Only one person circled "fear of decay" in #8, and no one did in #9.

One other interesting answer--one person became involved after his own clinical death and resuscitation. That would make an excellent article for our readers.

10. *Do you consider yourself a "cryonicist?"*

| | | | |
|--------------------|---------|-------|---------------|
| Suspension Members | Yes--36 | No--2 | ?--3 |
| members | 13 | 1 | no answer --2 |
| non-members | 4 | 3 | 1 |

One Suspension Member who said "no" was the fellow who didn't like the word "cryonics" (see Intro to this article, Part E).

One "?" asked, "What is a 'cryonicist'" (Anyone care to answer that question in print for us?)

Another "?" said that he was "reluctant to be identified with some of them" (cryonicists, that is).

11. *How many years have you been actively involved in cryonics?*

| | <u>S</u> | <u>M</u> | <u>N</u> |
|-------|----------|----------|----------|
| 15+ | 10 | 1 | 1 |
| 10-14 | 12 | | 2 |
| 5-9 | 13 | 4 | |
| 3-4 | 3 | 2 | |
| 2 | 1 | 1 | 1 |
| 1 | 1 | 4 | |
| 0 | 1 | 4 | 5 |

S = Suspension Member

M = member

N = non-member

An answer of "0" generally meant someone who had never been "actively" involved.

High answer was 18 years.

Average (for S only) --9.6 years.

Median --10 yrs.

12. *How do you handle discussing cryonics?*

| | <u>S</u> | <u>M</u> | <u>N</u> |
|---|----------|----------|----------|
| A. No one knows I'm involved. | 1 | 3 | 3 |
| B. Only closest friends know. | 6 | 1 | |
| C. I've told most friends, but not relatives. | 5 | | |
| D. I've told everyone I care about. | 13 | 1 | 1 |
| E. Discuss it freely and openly. | 16 | 9 | 5 |
| F. Preach cryonics everywhere. | 2 | 2 | |

The figures for M and N are fascinating. It may be less of a personal threat to discuss cryonics freely if one is not himself signed up. We hope that someday the people in "A" and "B" categories decide to stand up for their convictions.

13. *What social problems has cryonics caused you?*

Most people, including 20 of the Suspension Members and 17 of the unsigned, said "none." 7 Suspension Members had difficulties in a marriage or serious relationship which were caused by cryonics involvement; 3 saw serious relationships terminate. A small number circled "loss of job," "loss of friends," or "outcast from social circle."

"Other" included: financial burden --2; lawsuit with no justification --2; less willing to make friends outside of cryonics; low salary; a discredit from all those who know me (one of the "preachers" from #12); contempt, rejection, threats, strange looks, etc.

As might be expected, Suspension Members experienced more problems.

14. *What social benefits have you received from cryonics?*

Only 9 of the Suspension Members said "none" on this question, while 16 of the unsigned said "none." 27 Suspension Members saw "gain of new friends with similar goals" as a benefit. A few others thought they were seen as a celebrity or at least more interesting by their friends. 7 Suspension Members and 1 member met their spouse or lover through cryonics.

"Other" included: feeling of having a worthwhile goal; feel like I'm doing something about death; TV-radio contacts.

****Now we're going to skip over to the Personal Section of the Poll.

29. *Age*

| | <u>S</u> | <u>M</u> | <u>N</u> |
|-------|----------|----------|----------|
| 60+ | 2 | | 1 |
| 50-59 | 6 | 2 | |
| 40-49 | 13 | 7 | 3 |
| 30-39 | 13 | 3 | 5 |
| 20-29 | 7 | 4 | 1 |

Overall average = 40

Median = 39

High = 68 (Both high and low are Suspension Members.)
Low = 20

30. *Gender*

| | <u>S</u> | <u>M</u> | <u>N</u> |
|---|----------|----------|----------|
| M | 34 | 15 | 9 |
| F | 7 | 1 | 1 |

31. *Married?*

| | <u>S</u> | <u>M</u> | <u>N</u> |
|-----|----------|----------|----------|
| Yes | 18 | 5 | 4 |
| No | 23 | 11 | 6 |

32. *Number of Children*

| | <u>S</u> | <u>M</u> | <u>N</u> |
|----|----------|----------|----------|
| 6. | 1 | | |
| 5. | 1 | 1 | |
| 4. | | | 1 |
| 3. | 4 | | |
| 2. | 7 | 2 | 1 |
| 1. | 5 | 1 | 2 |
| 0. | 23 | 12 | 5 |

33. *Family members involved*

12 Suspension Members have family involved, including 5 spouses. One member has a spouse involved.

34. *Occupation*

| | | |
|-------------------------|--------------------|---------------------|
| Biological sciences --4 | Lab Technician | Numismatist |
| Medical Sciences --3 | Medical Techn. | Minister |
| Physics, Chemistry --3 | Electronics Techn. | Management |
| Engineer --4 | Auditor | Management Advisor |
| Computer Programmer --5 | Social Sciences | Funeral Director |
| Lawyer --4 | Banker | Cab Driver |
| Writer --4 | Librarian | Clerk |
| Real Estate --4 | Piano Teacher | Marketing and Sales |
| Accountant --4 | Acting | Manufacturing |
| Investor --2 | Grocery Clerk | Government |
| Education --3 | Research | Dry Wall Contractor |
| Business Owner --2 | Housewife | Unemployed --1 |
| Linguistics Research | Composer | Student --2 |
| Account Executive | Receptionist | Retired --2 |
| Correctional Sergeant | Draftsman | No answer --2 |

35. *Education*

| | <u>S</u> | <u>M</u> | <u>N</u> |
|----------------|----------|----------|----------|
| Less than H.S. | 1 | 1 | 1 |
| High school | 2 | | 2 |
| Some college | 11 | 5 | 2 |
| Bachelor's | 9 | 6 | |
| Master's | 8 | 1 | 2 |
| Doctorate | 10 | 3 | 3 |

36. *Annual income*

| | <u>S</u> | <u>M</u> | <u>N</u> |
|------------|----------|----------|----------|
| 0-10,000 | 7 | 5 | 1 |
| 10-15,000 | 6 | | |
| 15-25,000 | 6 | 1 | 3 |
| 25-50,000 | 11 | 7 | 2 |
| 50-100,000 | 3 | 3 | 2 |
| 100,000 + | 3 | | 1 |
| No answer | 5 | | |

Suspension Members are, on the average, pretty well educated but certainly not rich. 19 Suspension Members have incomes under \$25,000. Interestingly, several of the people with the higher incomes among the unsigned listed "financial" as one of the main reasons they had not signed up for suspension. Perhaps a look at priorities is in order here.

37. *Religious Background*

| | <u>S</u> | <u>M</u> | <u>N</u> |
|------------|----------|----------|----------|
| Protestant | 18 | 6 | 7 |
| Catholic | 10 | 3 | |
| Jewish | 8 | 3 | |
| Atheist | 5 | 3 | 1 |
| None | 2 | 1 | 1 |
| Non-denom. | | | |
| Christian | 1 | | |
| Agnostic | | | 1 |

38. *Current Religious Conviction*

| | <u>S</u> | <u>M</u> | <u>N</u> |
|------------|----------|----------|----------|
| Protestant | 1 | 1 | 1 |
| Catholic | 3 | 2 | |
| Jewish | 2 | 2 | |
| Atheist | 19 | 6 | 4 |
| None | 13 | 4 | 2 |
| Non-denom. | | | |
| Christian | 1 | | |
| Agnostic | 3 | 1 | 1 |
| Unitarian | 2 | | |
| Humanist | 1 | | |
| Theist | | | 1 |
| Cryonicist | 1 | | |

40. *Sexual Preference*

Heterosexual --58 Homosexual --3 Bisexual --3 Celibate --3

39. *Philosophical--Political Orientation*

Note: This was kind of wild. Most people circled more than one answer and some combinations sounded very strange. What a political debate we could have! This certainly proves that cryonicists do not all think alike. A desire to live may be their only common ground.

Because of these combinations, the results are listed both by individual item and by the particular combination of items.

| <u>Individual item</u> | <u>S</u> | <u>M</u> | <u>N</u> | <u>Combinations</u> | <u>S</u> | <u>M</u> | <u>N</u> |
|------------------------|----------|----------|----------|---------------------|----------|----------|----------|
| A. Liberal | 7 | 5 | 2 | A only | | 1 | 1 |
| B. Moderate | 6 | 3 | 1 | B only | 2 | 3 | |
| C. Conservative | 8 | 2 | 4 | C " | 2 | 1 | 1 |
| D. Republican | 5 | 3 | 2 | D " | 1 | 3 | |
| E. Democrat | 6 | 4 | | E " | 1 | 1 | |
| F. Libertarian | 16 | 1 | 3 | F " | 5 | 1 | 1 |
| G. Anarchist | 8 | 1 | 3 | G " | 2 | 1 | |
| H. Randite | 6 | | 1 | H " | 1 | | |
| I. Socialist | 1 | 1 | | A-E | 4 | 2 | |
| Pragmatist | 1 | | | A-E-I | | 1 | |
| Independent | 1 | | | A-B-C-D-F | 1 | | |
| All of above, | 1 | | | A-F-G-I | 1 | | |
| depending on mood | | | | A-C-D | | | 1 |
| Situation Conse- | 1 | | | A-C-D-F | 1 | | |
| quentialist | | | | A-C-Fascist | | 1 | |
| Whatever best | 1 | | | B-C | 2 | | |
| serves human needs | | | | B-E | 1 | | |
| Objectivist | | 1 | | B-F-G | | | 1 |
| Fascist | | 1 | | F-G | 2 | | |
| Racist | | | 1 | F-H | 2 | | |
| No answer | 2 | | 1 | F-G-H | 3 | | 1 |
| | | | | C-D | 2 | | 1 |
| | | | | C-G-Racist | | | 1 |

All other added items were single answers.

41 a. *Hours of television watched per week*

| | <u>S</u> | <u>M</u> | <u>N</u> |
|----------|----------|----------|----------|
| Too many | 1 | | |
| 40+ | 1 | 1 | |
| 30-39 | 1 | | 1 |
| 20-29 | 1 | 2 | |
| 10-19 | 9 | 6 | 3 |
| 6-9 | 10 | | 2 |
| 1-5 | 13 | 6 | 2 |
| 0 | 5 | | 1 |

Cryonicists apparently watch well below the national average for hours. However, it should also be noted that in previous surveys, the respondents consistently underestimated the number of hours they actually watch.

High --60

Low --0

41 b. *Type of shows watched*

| | | | |
|-------------|-----------------|---------------------|--------------|
| News --33 | Drama --6 | Educational --5 | (many others |
| Comedy --9 | Action --5 | Sports --4 | with 1 vote) |
| Movies --8 | Documentary --5 | Talk Shows --3 | |
| Science --6 | PBS --5 | Science Fiction --3 | |

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