

## Cryonics Immortalist Column

American Cryonics News and Views by Jim Yount {picture of freezer chest and ice chests}{caption} LOW TECH! Not all equipment needed in a suspension is high tech. Pictured here is a chest freezer which we just installed at the ACS office along with our ice chests for transporting the cold stuff. The used J.C. Penny's freezer cost a whopping \$35.00 and will hold enough ice to freeze even our largest members. Low Tech: Man With A Load of ICE It is a standing joke among cryonicists that anyone with a bucket full of ice can declare himself a cryonics company and hang out a "We freeze to please" sign. This fact has been of considerable concern. Since there are virtually no "industry standards," and little regulation, unscrupulous individuals might misrepresent themselves and victimize customers. David Baker's recent article in the Dickinson Law Review (see below for complete reference) echoes that concern "For twenty-five years, all but a handful of governments have remained quiet regarding cryonics." (page 710). In spite of this lack of government or industry selected watchdogs or establishment of standards, the cryonics organizations and companies have, by and large, conducted their business honorably without the kind of consumer fraud some would-be regulators fear. Freezing customers is only the first step. Anyone hanging out a shingle is immediately confronted with the problem of how to keep customers frozen, a feat which requires considerably more money, effort, and dedication than simply showing up at the hospital with a bucket of ice. Provided that the man with the bucket of ice has somehow made arrangements so his customer's remain frozen, is there anything really wrong with his business operation? Perhaps not. We certainly know that there are many cases where circumstances of death are such that a high tech procedure does not "deliver the patient to the future in the best possible condition." For example, when there has been considerable delay after cessation of vital functions, the circulatory system is often totally unusable as a pathway to introduce cryoprotectants and a "straight freeze" is all that can be done. The man (or woman) with a load of ice can be fast. If his best technology is simply to pack the patient with ice (water ice), he can concentrate on speed. The rapid initiation and continuation of cooling may be the single most important factor in preservation and one on which we all agree. There will be no delays to load complicated suspension equipment and supplies for the iceman. He simply grabs his ice and goes. Since ice-packing is such a simple procedure, with minimal cooperation and instruction, it can be initiated by almost anyone. Ice is cheap. If ice bath cooling is all the technology used, the patient's suspension funds will largely remain intact which may increase the cryonaut's chances of completing the time trip. Once the ice man has ice-packing down pat he may want to progress to another level of technical sophistication. However, while there is little disagreement among thoughtful cryonicists on how to pack ice, there is not a consensus on what should be the next step. There are cryonicists whose opinion on technical matters I respect, who argue that unless we are competent to perform the technically sophisticated procedures introduced by Jerry Leaf, then it is better to simply stick with the "straight freeze." In my opinion, the "quality" of suspensions can be improved (over a straight freeze) by relatively simple procedures. Key to judgment of "quality," for a suspension performed by people not skilled in the more complex procedures is SPEED OF COOLING. If the patient's core temperature can be more quickly lowered by following a procedure other than simple ice packing, then (generally) the quality of preservation will be enhanced. In particular, flushing chilled saline solution through the circulatory system, after cannulation by a mortician, can speed cooling considerably. There are obvious problems with this: 1. lack of sterile (and sometimes even sanitary) conditions; 2. high pressure embalming pumps may rupture capillary walls; 3. exposure of personnel to infectious blood; 4. problems of nonavailability of proper saline solutions. The list could go on. Introduction of a cryoprotectant to the saline solution as temperature decreases is the next logical step. In taking this step, we are going beyond rapid cooling to an attempt to minimize damage from the freezing process itself. We also stray further into controversy among knowledgeable cryonicists. Even when a particular protocol has been decided upon, the introduction of cryo-protectants can be tricky business. Even so, I favor the introduction of low concentrations of glycerol into the saline solution, but use of high concentrations should only be attempted by skilled technicians. There are a number of tasks which are beyond the skills level of the man with ice, but which most doctors, nurses, and other medical people can perform. The ice person, who is not afraid to ask, can often persuade these professionals for some elementary bedside assistance. It has been our experience that this is so, even when such help may be

against official hospital or nursing-home policy. CPR is a routine cryonics procedure in cases where it is possible to initiate resuscitation shortly after clinical death. A little training, even if "on the job" by someone already trained, can increase the suspension-worthiness of "he (or she) who bears ice." Part of the work of launching the cryonaut through time is simple administration or "anyone-can-do-it" labor. Making calls to get "remains" released, arranging transport, moving ice and patient from place-to-place are all ice-man tasks. While recognizing the value of someone with dedication but little training, we must also acknowledge the limitations of such untrained people. Years ago, when considering the question of what should be acceptable industry standards for a cryonics service company or organization, Fred and Linda Chamberlain emphasized the importance of honest representation of whatever skills or technical level had been attained. "Yes, my cryonics supplies and equipment consist of a bucket filled with ice. But my ice is just as cold as the ice of everyone else, and my bucket does not leak." So, here's to the man with a load of ice. He could save your life. Send Your DNA on Ahead In a syndicated article by Nicholas Wade, first published for the New York Times, it is reported that Dr. James Bicknell of Third Millennium Research, Inc., of Seattle will package your DNA for a trip through time. You rub your finger with piece of gauze, send it to Dr. Bicknell. He "extracts" the DNA from your skin cells on the gauze, and returns it to you in a neatly sealed capsule inside a metal case. The price of the processing is \$35.00, payable to Third Millennium Research when you mail in your finger-scrappings. We haven't yet checked out this report. However, the concept of storing minute biological samples for purposes of determination of identity appeals to many cryonicists. We have previously reported on our own efforts to preserve hair (with intact follicles) in a container filled with an inert gas (nitrogen) and a desiccant. It could be questioned whether it is best to extract DNA now, or simply store a biological sample in an inert gas unprocessed; but for \$35.00, what do you have to lose? (except \$35.00). Some Insurance Companies Use DNA Samples to Establish Identity A number of insurance companies are now requiring a "finger prick and blood collected on a gauze swatch" in addition to blood collected in a vial, of all new life insurance applicants. I haven't seen anything from the insurance companies to confirm this, but speculation is the companies are establishing a DNA bank to help prevent insurance fraud. If the DNA of the remains of the person represented as the insured matches the DNA of the sample of the person who applied: no problem, the claim is paid. If no match: we've got a problem, the claim is denied. It may be that access to the DNA "fingerprint" will be available to ACS, executors, or to the individual insured, through the freedom of information act. If so, our own need for a bank of DNA samples may be supplemented by the insurance companies. David Baker's Article in Dickinson Law Review ACS was among the people and organizations receiving copies of David M. Baker's article entitled "Cryonic Preservation of Human Bodies -- a Call for Legislative Action," which was published in Volume 98, number 4 (Summer 1994) of the Dickinson Law Review. I vaguely remember talking to Mr. Baker by telephone, who as I recall, first published this article as a thesis or dissertation while a law-school student. Since a number of other people have written, or are writing about the article, a full critique would be redundant; instead, I'll comment briefly. Mr. Baker concludes that there is very little regulation of cryonics, and this regulatory vacuum serves neither the public nor cryonics advocates. His final paragraph of both the article and his summary states: "The minimal government action to date has been unjustly harsh, ineffective or insufficient. The twin goals of addressing the public concerns and solving the cryonicists' dilemmas, regarding the practice of cryonics, can best be met through state adoption of a uniform and comprehensive act." I am in agreement with Mr. Baker's conclusion. While some cryonicists argue against any government control, the political realities are such that for a practice as complex and controversial as cryonics, regulation is inevitable. The industries which have the least regulation are those which have been able to impose self-regulation through national organizations which establish standards and self-policing practices. The cryonics organizations and companies haven't exhibited the adherence and necessary interorganizational cooperation to engage in self-regulation. At best we may be able to work with state regulators to help draft laws which aren't too burdensome, and which don't simply regulate cryonics out of existence. Mr. Baker's notion of cryonics history and trends appears to be simplistic and somewhat inaccurate. Baker's history has us flourishing in the late 1960's and early 1970's, almost disappearing in the 1980's and reviving and prospering in the 1990's. The movement could better be characterized as one of slow painful growth all along. Publicity, and perhaps public perception, has been very uneven, but those committed to the concept are unlikely to drop out because of any but the most severe problems. Also troubling is Baker's reliance on secondary sources, largely magazine and newspaper articles. So many of the articles on cryonics have been inaccurate, sloppily written, and poorly researched. This error-ridden literature then becomes the basis of research for future authors, thus extending and compounding the

errors. Authors of scholarly works should take special care to avoid this error compounding. Two Cellular Phones on One Line During a recent suspension, Sandra Russell's cell phone proved very valuable. It allowed us to keep in contact with each other to a much greater extent than on previous suspensions. We have been gathering material, with the intent of purchase of one or more cellular phone for emergency use in future suspensions. A company in Alabama, CTwo-Plus-Technology (phone 205-264-0264) is in the business of converting, or adjusting cell-phones so more than one phone can be used on a single line. Minimum line-charge is a very significant cost of cell-phone ownership. Having more than one phone on a line should allow more flexibility and a greater safety margin. There are disadvantages to having more than one phone on a line: it isn't possible to use both phones at once and hence parties using the two phones can't talk to each other or to a third party simultaneously. During suspensions, messages could be relayed by a third party. Our answering service can function for this purpose for more routine matters. A complicated kludge could also establish communication between the two phones by use of a home-base message system. It would work like this: Mutt uses his cell phone to call his home phone number and records a message. He then uses his cell phone to page Jeff directing him to call the home number. Jeff calls home and uses his remote message retrieval function to rewind the tape on the home recorder to play back Mutt's message. He then records his own message in reply, and pages Mutt, who in turn calls home to retrieve the answering message. After reading this, do you get the idea that either Mutt or Jeff would soon get a second cell-phone line? Needless to say, we would never expect to use such a complicated system for suspensions.