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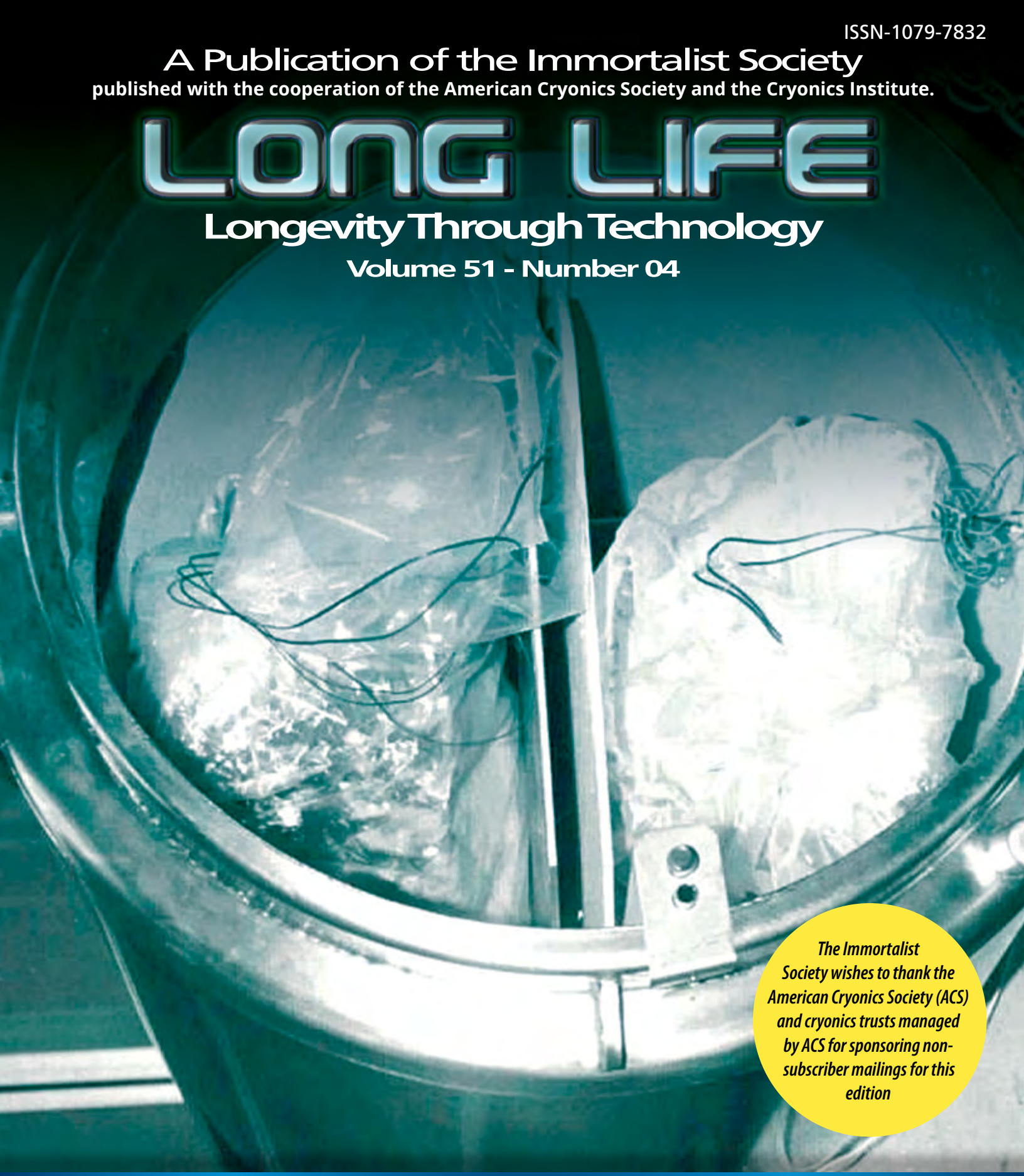
LONG LIFE

Longevity Through Technology

Volume 51 - Number 04



The Immortalist Society wishes to thank the American Cryonics Society (ACS) and cryonics trusts managed by ACS for sponsoring non-subscriber mailings for this edition

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CRYONICS INSTITUTE
Technology for Life

Why should You join the Cryonics Institute?

The Cryonics Institute is the world's leading non-profit cryonics organization bringing state of the art cryonic suspensions to the public at the most affordable price. CI was founded by the "father of cryonics," Robert C.W. Ettinger in 1976 as a means to preserve life at liquid nitrogen temperatures. It is hoped that as the future unveils newer and more sophisticated medical nanotechnology, people preserved by CI may be restored to youth and health.

1) Cryonic Preservation

Membership qualifies you to arrange and fund a vitrification (anti-crystallization) perfusion and cooling upon legal death, followed by long-term storage in liquid nitrogen. Instead of certain death, you and your loved ones could have a chance at rejuvenated, healthy physical revival.

2) Affordable Cryopreservation

The Cryonics Institute (CI) offers full-body cryopreservation for as little as $28,000.

3) Affordable Membership

Become a Lifetime Member for a one-time payment of only $1,250, with no dues to pay. Or join as a Yearly Member with a $75 initiation fee and dues of just $120 per year, payable by check, credit card or PayPal.

4) Lower Prices for Spouses and Children

The cost of a Lifetime Membership for a spouse of a Lifetime Member is half-price and minor children of a Lifetime Member receive membership free of charge until the child turns 18 years of age.

5) Quality of Treatment

CI employed a Ph.D. level cryobiologist to develop CI-VM-1, CI's vitrification mixture which can help prevent crystalline formation at cryogenic temperatures.

6) Locally-Trained Funeral Directors

CI's use of Locally-Trained Funeral Directors means that our members can get knowledgeable, licensed care. Or members can arrange for professional cryonics standby and transport by subcontracting with Suspended Animation, Inc.

7) Funding Programs

Cryopreservation with CI can be funded through approved life insurance policies issued in the USA or other countries. Prepayment and other options for funding are also available to CI members.

8) Cutting-Edge Cryonics Information

Members currently receive free access to Long Life Magazine online or an optional paid print subscription, as well as access to our exclusive members-only email discussion forum.

9) Additional Preservation Services

CI offers a sampling kit, shipping and long-term liquid nitrogen storage of tissues and DNA from members, their families or pets for just $98.

10) Support Education and Research

Membership fees help CI, among other things, to fund important cryonics research and public outreach, education and information programs to advance the science of cryonics.

11) Member Ownership and Control

CI Members are the ultimate authority in the organization and own all CI assets. They elect the Board of Directors, from whom are chosen our officers. CI members also can change the Bylaws of the organization (except for corporate purposes).

The choice is clear: Irreversible physical death, dissolution and decay, or the possibility of a vibrant and joyful renewed life. Don't you want that chance for yourself, your spouse, parents and children?

To get started, contact us at:

(586) 791-5961 • email: info@cryonics.org

Visit us online at www.cryonics.org

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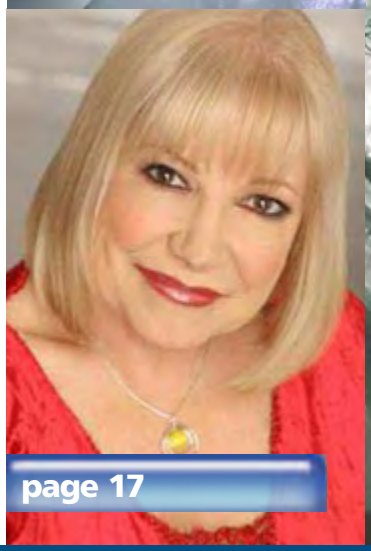

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LONG LIFE
MAGAZINE

A publication of the Immortalist Society

ORGANIZATION NEWS

FEATURE STORIES

ONLINE PDF HYPERLINK COMPATIBILITY

Since different browser configurations handle pdf links differently, if you have trouble opening any hyperlink(s) in the magazine, try these steps:

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2. Download the pdf file to your desktop. Open downloaded file in Adobe Reader or your preferred PDF viewer.
3. Change PDF viewing settings / extensions on your browser (*advanced users only*)
4. Try a different browser (especially if you're using Internet Explorer.) We recommend Google Chrome.

You've signed up for Cryonics Now what should you do?

Welcome Aboard! You have taken the first critical step in preparing for the future and possibly ensuring your own survival. Now what should you do? People often ask "What can I do to make sure I have an optimal suspension?" Here's a checklist of important steps to consider.

- ☐ Become a fully funded member through life insurance or easy pre-payments

  Some members use term life and invest or pay off the difference at regular intervals. Some use whole life or just prepay the costs outright. You have to decide what is best for you, but it is best to act sooner rather then later as insurance prices tend to rise as you get older and some people become uninsurable because of unforeseen health issues. You may even consider making CI the owner of your life insurance policy.

- ☐ Keep CI informed on a regular basis about your health status or address changes. Make sure your CI paperwork and funding are always up to date. CI cannot help you if we do not know you need help.

- ☐ Keep your family and friends up to date on your wishes to be cryopreserved. Being reclusive about cryonics can be costly and cause catastrophic results.

- ☐ Keep your doctor, lawyer, and funeral director up to date on your wishes to be cryopreserved. The right approach to the right professionals can be an asset.

- ☐ Prepare and execute a Living Will and Power of Attorney for Health Care that reflects your cryonics-related wishes. Make sure that CI is updated at regular intervals as well.

- ☐ Consider joining or forming a local standby group to support your cryonics wishes. This may be one of the most important decisions you can make after you are fully funded. As they say-"Failing to plan is planning to fail".

- ☐ Always wear your cryonics bracelet or necklace identifying your wishes should you become incapacitated. Keep a wallet card as well. If aren't around people who support your wishes and you can't speak for yourself a medical bracelet can help save you.

- ☐ Get involved! If you can, donate time and money. Cryonics is not a turnkey operation. Pay attention and look for further tips and advice to make both your personal arrangements and cryonics as a whole a success.

CRYONICS INSTITUTE
Technology for Life

LONG LIFE

A quarterly publication of the

Immortalist Society

24355 Sorrentino Ct. Clinton Township MI 48035-3239

President: York W. Porter Vice-President: Debbie Fleming
Secretary: Royse Brown • Treasurer: Leonie Blaney
Director-at-Large: Stephan Beauregard

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CI EXECUTIVE REPORT

Dennis Kowalski - President, Cryonics Institute

Presidents Report 7-14-20

Hello Everyone,

It's been a challenging year for all of us with the COVID 19 pandemic, mass protests and other concerning events happening around the world. As the President of an international organization, I consider how these events impact our membership around the globe, particularly in the case of how lockdowns and travel restrictions could impact a patient's transport to CI for their cryopreservation. Rest assured, we are doing all we can to work around any national, regional or local restrictions as needed, but the most integral part of our cryopreservation team will always be you, our local member, who best know their own circumstances, region and laws.

So please take note if you are in poor health or otherwise nearing end of life and eventual cryopreservation. In light of the ever-changing circumstances, this is an excellent time to look into your standby and transport arrangements. It is especially important now to determine if there are any unusual travel, medical or other unique circumstances or temporary restrictions in place due to the pandemic or other events. Even if your arrangements are already in place (and if they are, my personal kudos to you for planning ahead!) it is in your best interest to review and confirm those arrangements in case something has changed. If you haven't made those arrangements, perhaps facing the unprecedented times we are going through will help provide the impetus to take them more seriously and actively plan for and make the necessary arrangements.

In spite of all that, I would still like to strike a note of optimism here and say whatever difficulties we are facing, I remain certain that we will collectively overcome these setbacks and grow to become a stronger and better world. Regarding the pandemic, I think recent news about the governments, research centers, doctors and scientists everywhere working hard to find solutions is a reason to be hopeful this will be over soon. I realize there are many conflicting reports out there, but I choose to focus on the positives and like everyone else, sincerely hope for a resolution to all this sooner rather than later.

As a cryonicist, I have confidence in the future and am optimistic thinking about the rapid pace of technological advances and what the future holds. I appreciate all the comforts we enjoy today and look forward to what's in store for tomorrow. In many ways, I believe it is fair to say that we are generally spoiled as a society when we step back to consider all that we have now compared to what our ancestors had as little as 50 or 100 years ago. Advances in communications and connectivity come to mind, with the explosion of the internet and internet-enabled devices and applications. Transportation continues to become faster, more convenient and more environmentally-friendly and efficient. Business and industry constantly drive innovation and introduce new products and services to make life better.

But most important, mankind continues to revolutionize healthcare and advance our knowledge of medicine and the human body. Dedicated researchers are constantly finding new ways to fight diseases and ailments. The average life expectancy continues to rise. People worldwide have more access to healthcare and access to cures and procedures undreamt of decades ago. The track record of success makes me wonder "What revolutionary advances are ahead?" rather than worry that our current problems can never be solved.

All these things give me reason to be hopeful rather than fearful of both the far and near future. I think cryonicists in general are more in tune with technology and futurism and tend to have broader knowledge of scientific progress and

potential and therefore have a more positive outlook on the future.

Please try to consider this when you see or read the negative stories and comments flooding the news and social media. I try to put it all in a greater perspective, understanding and appreciating the incredible resources and talent we have working to solve our problems and this helps me keep a positive attitude.

The Cryonics Institute continues to operate efficiently and is in a good place despite the isolation restrictions and quarantines in place in the State of Michigan. I am extremely proud of our staff and their continued professionalism during these trying times. I am also happy to have many volunteers and donors within our membership who selflessly contribute their time, experience and financial donations to help make CI better and stronger. This includes the CI Directors who work diligently with both professionalism and humility to ensure CI functions smoothly and constantly continues to improve.

2020 ELECTIONS

This reminds me of the upcoming CI elections and our Annual General Meeting, which will take place on Sunday, Sept. 13. There will be four director spots up for election in this year's annual election to serve a three-year term. I anticipate that the four incumbents, Stephan Beauregard, Myself, Steve Lucyx and Andy Zawacki will be running. In addition, any challengers are also welcome to run for these spots on the board. Being a Director on the CI board is an important responsibility and can be challenging, but is certainly rewarding helping to direct the course of the Cryonics Institute (and the larger cryonics movement)) and therefore well worth the effort.

Board Members serve three-year terms, with four positions up for election each year on a rotating basis. Board positions are open to Voting Members only. To qualify as a Voting Member of the Cryonics Institute a CI Member must be age 18 or over and either be a Lifetime Member or have been a Yearly Member for at least three years. Additionally, only CI Members with an executed Cryonic Suspension Agreement and having full up-to-date funding for the Cryonic Suspension Agreement may be Voting Members. This means your annual proof of funding has been provided to CI, unless CI owns your insurance policy or you have prepaid your suspension fee.

Interested parties can submit their Ballot statements if they wish to be considered for election to the CI board of Directors. **Ballot statements must be postmarked or received by email at the CI Facility no later than Saturday, July 24, 2020.**

In order for candidates to be included on the paper ballot before the election they must submit a bio / candidate statement **of 150 words or less** before this date. A photograph is optional, but encouraged.

All voting members will receive their ballot and voting instructions via mail prior to the 2020 AGM

I would also like to take this opportunity to announce my own candidacy for the CI board where I currently have the honor to serve as your President. If you are happy with the overall progress that you have seen with CI and the direction we have been heading in over the past several years, then I would be happy to serve you as a director for another three years and respectfully ask for your vote.

2020 AGM

This year's AGM will be held on Sept 13th Sunday at noon. Unfortunately, It will have to be a virtual meeting. due to state and practical restrictions related to COVID isolation mandates presently in place in Michigan, USA, including social distancing rules. Because of these restrictions, we are unable to hold this year's meeting at our normal location where CI members would be in close proximity to each other.

We will have our normal line up of speakers and at least one guest speaker, and hopefully can also conduct a question and answer session in the new online format.

Please see the CI website cryonics.org (news section) and follow our social media accounts for the specifics on how to attend the virtual meeting. Details will be coming very soon. The process should be simply clicking a link on any internet-enabled device to join the webinar at the appropriate time.

On the bright side, this does give our international and out-of-state members an easy way to participate, so we are hopeful this allows more people to get involved. However, I really enjoy the social networking side of the AGM and do hope next year we can go back to our normal in-person meeting.

Sincerely,

Dennis Kowlski - President, Cryonics Institute

Cryonics Institute Membership Statistics:

As of February 2020 the Cryonics Institute has 1,890 members, up 60 from our last report. Of the 1,890 Members, 277 have arrangements for Suspended Animation Standby and Transport.

There are 187 human patients and 189 pet patients in cryopreservation at CI's Michigan facility.

CI continues to be an industry leader in terms of both membership and practical affordability for all.

CI MEMBERSHIP

JULY 2020

* New Members = Increase in Membership since last issue

Members	1,703	Pets	189	TOTAL
Patients	187	DNA/Tissue	308	1,890
		SA	277	

ACS Examination and Assessment of the Cryonics Institute for 2019

By: York W. Porter

Voting Member, Cryonics Institute

President, Immortalist Society

Member, Board of Governors, American Cryonics Society (ACS)

Introduction:

One of the long-term concerns in cryonics is to ensure, to the degree reasonably humanly possible, that cryonics patients who are obviously unable to directly speak for themselves are adequately cared for. The definition of adequate care would encompass the time period, of course, from the time they are placed in the initial hands of a cryonics provider until such time as they are placed in long time storage at cryogenic temperatures (said storage which may be termed "cryostorage"). It would also include the need to reasonably insure long-term cryostorage in a stable way until such time as the patient may be revived, repaired, and rejuvenated.

While the initial procedures may be of a relatively brief nature, taking only hours or, perhaps, a day or two, cryostorage in particular may entail time periods that could involve decades or possibly even centuries. It is readily apparent that, both in the short run and in the long run, insuring that quality services are a reality and not just a vague but laudable goal of otherwise well-intentioned people is only achievable, in whole or in part, by various methods of quality control.

As part of its mission, the American Cryonics Society (ACS)

has as one of its purposes the desire to help insure that quality services are offered by any organizations that engage in or may engage in the cryonics care of past, present, and future ACS members. Part of that attempt to help insure that quality services are provided is an annual assessment of relevant cryonics agencies.

It should be noted that the efforts of ACS are very similar, if not identical to, the situation that exists when outside agencies conduct assessments of hospitals and other health care facilities. The efforts by ACS to take somewhat of an "independent look" at a facility and provider should be viewed in a similar fashion, as an adjunct to the internal efforts of the organization itself in trying to make sure quality service is at the top of the list. It can also be viewed to some degree as a professional partnership, so to speak, between both ACS and the cryonics service provider. This is true since both entities will have as their goals the best care for cryonics patients that can reasonably be provided under any particular set of circumstances.

It should be noted that in the interests of helping to insure quality, ACS has as its intention annual visits (and more often if it seems warranted) of organizations and facilities as needed on behalf of ACS members. It also has the desire to engage in an attempt to continually improve the ACS assessment regimen. It is ACS' firm belief that such work, along with internal efforts by cryonics services providers, will further help to insure that no cryonics patients are placed in significant jeopardy.

Some Particulars of the Cryonics Institute Examination

In the particular case of the Cryonics Institute, and as a representative of the American Cryonics Society, this writer conducted the assessment for 2019 of the Cryonics Institute (CI) on behalf of ACS. CI is located at 24355 Sorrentino Court in Clinton Township, Michigan. This assessment was conducted during the general time period of the annual Fall membership meeting of CI. As a long time suspension member of CI, I have become well aware of both how the organization works and of its physical plant layout and functioning. Further, I have a good familiarity with the main personnel and Board Members of the Cryonics Institute. In particular, Mr. Andrew Zawacki, who serves as one of the main full time employees of CI and who also serves on the CI board as it's Chief Operations Officer and as Board Secretary, has been known by me for several decades now. Both as a CI member and in my capacity as an officer for over 20 years in the Immortalist Society, I have been in and around the CI facility on numerous occasions.

Physical Plant

With the main part of the building measuring about 60 feet wide by a hundred feet long, with an additional rectangular area of about 1000 square feet forming an offset at the front of the building, the CI facility, purchased in 1994, is located in a small industrial park in Clinton Township, Michigan. It replaced a much smaller facility that was outgrowing its usefulness. The building, in accordance with a CI policy of having no debt was purchased outright. (It should be noted that CI now has also acquired an additional facility but, at the time of the 2019 examination, this facility was still being upgraded for future use and, as such, was not included in review efforts for 2019). At first glance, as a very functional structure, the CI facility's exterior, which is surrounded in the industrial park by other similarly built structures, is neat and orderly. The parking area is well maintained with its surface having been upgraded sometime back from asphalt to concrete as the asphalt surface had significantly deteriorated over the years. The concrete surface is still in excellent condition. The parking area gives ample space for workers and normal visitor's traffic. General access to the industrial park and to the particular facility itself is by well-paved roads that should make for ready access by fire and police personnel as needed. The exterior of the building gives a utilitarian appearance that is, however, kept up extremely well and which should give a good impression of competence to anyone showing up at the facility.

At the front of the building, occupying a roughly a thousand square feet space or so, is located an office area, resting area/privacy room, and a filing cabinet room. Also present is an associated coat closet/utility closet and a rest room facility for use by staff and visitors. (A second handicapped accessible rest room is the cryostat area mentioned below). In recent years, a tiled floor covering has been laid in this general area that has greatly upgraded the appearance of the office area as opposed to a previous but lesser substantial flooring. In any endeavor, from education to medical work to many other fields, the appearance of a facility is important in the messaging it gives to both folks employed by the organization and by present and potential future members and visitors to the building. It is significant that individuals are able to look at a facility with the subliminal message received by them that the people involved in the effort associated with

the facility are quite serious about the effort and that they genuinely care about what they are doing. Various labors over the past few years at improving the general appearance of CI's physical plant have, in this writer's opinion, been well carried out and help a great deal in the professional image of the organization.

As a minor example, the tiled floor, in a more utilitarian sense, not only gives a very nice appearance, but is very substantial and should stand up better to foot traffic than did the floor covering that preceded it and the tile floor covering should make dealing with making spills of any kind relatively easy to clean up. It does, though, help to give the impression that the building is a well designed and maintained and part of a well carried out endeavor in which attention to detail is not overlooked.

At the end of a short hallway in the office area is a door that leads to the region where the cryostats (cylindrical devices which store patients) are located. As one goes into the cryostat region, just off to the right, is the perfusion room where patients are initially prepared for the procedures associated with cryonics. This perfusion area is well organized and arranged in such a way that is quite conducive for easy access to any materials and/or equipment needed to carry out this essential cryonics activity.

Sprinkler System Piping/Fire Extinguishers

Also in this area are entrance and supply pipes related to an automatic sprinkler system in the building that was initially paid for, in large part, by the American Cryonics Society. This piping and valve arrangement appeared to be well maintained and in apparent effective operating order. This development, though going back several years, was a major improvement in the facility in this writer's opinion. The bywords in cryonics have to always be, of course, "quality" and "safety".

It should be noted that, in addition to the sprinkler system, individual hand held fire extinguishers were in various locations in the building and appeared to be in good operating conditions.

Former Member Meeting Room

As one continues through the cryostat area, and also off to the right, is a fairly good sized room that appears somewhat larger than the perfusion room. In previous years this room had been used for member meetings and, at other times, for storage of some books and other materials. Since that time period and in conjunction with the general upgrades in the facility, the room now serves as both a meeting/conference room for smaller groups of people and as a "memorial room" where families may gather during visitation times after their loved one has been placed under the care of CI.

A noted feature of the room is a large screen television where, at times, photos of some of the patients under the care of CI are displayed in sequence. The general thrust of CI is centered, of course, on the value of each individual's human life and the reasonable possibility that future medical science may be successful in assisting individuals who have undergone cryonics care. The display of photos of real individuals under CI's care helps to emphasize that and "humanizes" the endeavor and the organization a great deal.

Cryostat Region

The cryostat area in general has continued to gradually fill up as more individuals are received to be placed under CI's care. This has been the subject of great discussion among the CI Board and the reason that CI announced, some time back, that a second location had been obtained for future expansion. It should be noted that the obtaining of this second facility, at the time of this writing, is still not of an "emergency" nature and storage spots still remain at the existing facility. The CI Board of Directors was though, in this writer's opinion, just engaging in prudent foresight with an attempt to plan and provide for facilities that should be adequate for the foreseeable future in the operations of CI. Since interest in cryonics seems to be, fortunately, gradually accelerating, CI is simply acting in a very prudent manner in trying to prepare itself for future patients that will no doubt come under its care.

Work Area/Attic

In the very back of the facility stands a general work area, which is quite utilitarian in its nature. It is also separated from the general patient/visitor area as well as the cryostat area by a couple of walls and some doors that can remain locked as necessary when non-CI personnel are in the building. There is also in this region an attic area that exists for storage of various supplies and materials. The work area is also well stocked with tools and supplies that are needed from time to time by CI personnel.

Bulk Storage Tank/Cryostat Refilling

After exiting outside through a side door at the back left of the cryostat area, one can turn to the right and come upon a large bulk storage tank that is enclosed by dual chain link fencing. Both gates of the chain link fencing are secured with locks. Inside the fencing rests a large bulk tank from which liquid nitrogen is withdrawn to refill the cryostats as needed. This system has resulted in financial savings to CI over the smaller volume liquid nitrogen delivery methods that CI used in its earlier days. If there should be a short-term increased need for additional liquid nitrogen between deliveries, it would also serves as a "reserve" of liquid nitrogen in case supplies were to be delayed in being received. The bulk tank is refilled periodically by a liquid nitrogen delivery truck that basically assures that a supply of liquid nitrogen is always available.

This large bulk tank appeared to be in excellent condition. There is a supply system leading from the bulk tank that winds up in a nozzle and hose system. This system then allows cryostats to be filled directly via the nozzle and hose system with the dispensing of liquid nitrogen through the top of the cryostat. There is a metal "catwalk" that workers can utilize in helping to accomplish this task.

There have been no interruptions in adequate liquid nitrogen deliveries and no patients have been subjected to any period of decreased liquid nitrogen supplies. Lack of ready availability/purchase of liquid nitrogen was a factor in the one major disaster in cryonics that occurred several decades ago.

Cryostat Construction/Operation

Although for a number of years the Cryonics Institute staff did "in-house" construction of its cryostats, at this point in time an outside company, to specifications provided by CI, now manufactures these. No major failures of any kind have been noted with any cryostats and the units utilized by CI have been extremely reliable. All cryostats in use at the facility at the time of the ACS assessment were intact with no visible signs of leaks/malfunction/damage. The fiberglass construction of the latest cryostats utilized by CI should allow reasonably ready repair of defects or problems that might occur.

A plus in monetary savings for CI has occurred due to the fact that the use of liquid nitrogen per patient has been much less than CI initially planned for. This has been due to the fact that the cryostats used, in the aggregate, have turned out to be much more efficient than was originally thought.

It should be kept in mind that the cryostats basically function like large thermos bottles that do not require electricity in their day-to-day operation. Further, the liquid nitrogen, although an "ultra cold" liquid, does not actively "boil" inside the cryostats in the manner water does in a pan on a red-hot stove eye. The liquid nitrogen in the cryostats instead simply slowly evaporates. It is then replaced as needed by CI workers in the manner described above on a regular basis. CI personnel check cryostats devotedly in order to insure that levels of liquid nitrogen are always properly maintained.

Emergency Electrical Power Available

In the general region of the cryostat area there is also located a so-called "cool down box". This computer controlled device (which can also be operated manually if need be in the case of a computer failure) is utilized in the effort to slowly lower patient's body temperature to that of the liquid nitrogen that they will be exposed to in the cryostats. It appeared to be in good appearance and working order at the time of the inspection.

For those items such as the cool down box and other electrically powered devices such as lights, computers, etc., a 10 kW generator is on site to provide that power in case of failure of the electrical power coming into the building.

Personnel

Andy Zawacki

As mentioned above, this writer has known Mr. Zawacki ("Andy") for several decades now. Mr. Zawacki is well known to be very polite, very honest, and to be a very pleasant and helpful person to deal with. He is also a very key person in the decades long effort to bring CI from its relatively early days of operation to the point that it is now. Working for CI since around 1985, Mr. Zawacki, as mentioned earlier, also serves on the CI Board of Directors. In his dual role as employee and CI Director, Mr. Zawacki ("Andy") has been in an excellent position to keep the CI Board of Directors well informed as to problems and concerns in the day-to-day operations of CI.

This writer has dealt with him personally for around thirty years now and has found him to be unfailingly loyal to CI, deeply concerned about the welfare of the organization, and deeply concerned about the welfare of its many mem-

bers. These characteristics, both personal and professional, make Mr. Zawacki a very pleasant person to deal with. With a wealth of knowledge of the history of CI, as well as its day in/day out operations and the procedures utilized in cryonics as well, Mr. Zawacki remains a quite valuable employee.

Hillary Martenson

Working for CI for the past several years, Mrs. Hillary Martenson has been an excellent addition, in this writer's opinion, to CI's personnel roster. Mrs. Martenson is an obviously quite intelligent and industrious young woman. Further she has formal training in Mortuary Science and holds a bachelor's degree in that area. Utilizing Mr. Zawacki as somewhat of a mentor, she has turned out to be a "quick study" and a major asset to CI as well as well as its many members. Mrs. Martenson, just like Mr. Zawacki, is very pleasant to deal with. With the addition of Mrs. Martenson in particular, in this writer's opinion, CI is building a roster of people to continue to help provide high quality services. Ms. Martenson has been a licensed funeral director since April 28, 2015 (Michigan Mortuary Science License Number 4501007964). Ms. Martenson's formal background in mortuary science is also a big asset in dealing with numerous funeral directors worldwide as well as in her dealing with members and their families during what can be, to say the least, very stress filled times.

Mike McCauley

CI has also hired Mike McCauley, who happens to be the father of Hillary Martenson. At the time of the ACS examination, Mr. McCauley was involved in facilities work and general improvements for CI. As the workload has gradually increased at the Cryonics Institute, he has been a welcome addition to the CI team.

Dave Fulcher

Mr. Dave Fulcher is an additional employee of CI and has been so for quite a number of years, offering a further "safeguard" in the case of illness and/or loss of other employees.

Governance of CI

The Cryonics Institute is a member owned non-profit Michigan corporation. The assets are owned by the members collectively and utilized solely for the benefit of said members.

The day in, day out operation control of CI is vested in a 12 person Board of Directors. So-called "voting members" of CI presently vote for one third (four individuals) each year to serve on that Board of Directors. Voting members are those CI members that have paid an initial membership fee and that have suspension contracts that are up to date and fully funded at the time of the vote.

The type of voting that is utilized by CI in the election of its Board Members is normally known as "cumulative voting". This is a fairly common mechanism in many corporations. The process begins by the allotment to each voting member of the same number of votes as there are Board of Director's positions up for election. In the case of CI, this would be four total votes that would be available for each voting member to utilize. Members may then cast those four votes in any combination they wish. That is to say, they may cast all four votes for one candidate or they may "mix and match" votes if they so desire. In "mixing and matching", they may cast one vote for one candidate and three votes for another, or two votes for one candidate, two votes for another, or one vote for each of four candidates, etc. The four candidates receiving the top four number of votes after all ballots are totaled in the election become the new Board Members. Each Board Member serves a three-year term each.

The big advantage of this method of voting is that it helps insure that a minority viewpoint can be represented on the Board of Directors even in the face of substantial opposition to that viewpoint and the candidate that represents it. A relatively small group of voters, working together, may insure that at least one seat on the Board of Directors is occupied by an individual sympathetic to and/or agreeing with their viewpoint. With the number of directors elected each year at present set at four, a group consisting of only twenty percent of the voting members can cast all of their four votes apiece for one particular candidate. If they can then persuade only one additional voting member to cast at least one of their four votes for that same candidate, the candidate will be insured a position on the CI Board of Directors.

Since each successful candidate serves for a time period of three years, over this same time period a group can insure the election of three members of the Board of Directors by using this same "bloc voting plus one" methodology as just mentioned. This doesn't mean that the group can hold a majority interest on the Board, of course, but it does make sure that the three individuals the group can elect over that three-year period can act as a very significant force on the Board. They will be privy to any documents, actions, Board minutes,

etc. that the organization possess/has engaged in and can, thereby, act as a tremendous "watchdog" for the members. They may also engage in direct and active participation in the Board meetings. In a sample of various actions they can take, they can argue for a particular position, they can make motions at Board meetings and they can look at organization expenditures to help insure that only proper and authorized disbursements are made. They can inspect the organization's facility and operational records and actions, consult with CI's legal counsel as well as, if need be, outside legal counsel and experts, etc., etc. and can help to make sure that a so-called "dictatorship of the majority" would be an extremely difficult thing to carry out.

Officers of the Corporation

It should also be noted that the twelve members of the Board of Directors vote on their officers and do so on an annual basis. After the election for Board of Directors is over as carried out by the membership, the Board of Directors then is the group that determines who shall be the President, Vice-President, Secretary, Treasurer, and Contract Officer of CI. The Board may establish other offices but, at the next annual meeting, these offices must be approved by the voting members.

Ability of Board to Assign Presidential Duties

Even the President of the organization, who holds within limits more or less CEO status and authority, is in a position where they must be quite cognizant of the wishes of the majority of the Board of Directors. This means that they must, therefore, attempt to be in tune with the wishes and desires of a relatively wide number of members in the organization. The Board of Directors may also interact with the President by the assignment of specified duties to the President. This acts as a further mechanism to prevent any one individual who holds the office of Board President from abusing their authority.

Further Checks and Balances

In any organization, a strong willed and forceful personality might be able to greatly influence the operation of things, especially in the absence of principled and strong willed opposition. In the case of CI, however, without a fairly total abdication of responsibility among the Board of Directors ***and*** of the membership as a whole, such an attempt would seem to be short lived.

Further "checks and balances" to prevent one person from gaining excessive authority are represented by the fact that members of the Board of Directors may be removed without cause by the membership (subject to provisions within the Michigan Nonprofit Corporation Act). Further, it only takes five percent of the membership (or five members, whichever is greater) to stop new or non-customary action by the Board of Directors or of the corporation's officers. In the case of such opposition by a relatively low number of members, a special meeting of the membership must be called.

Two persons who are members of the Board of Directors may also do the same. This particular aspect of CI bylaws/operations gives great "check and balance" power to any minority group utilizing strategic voting under the cumulative voting procedures as outlined above. The action of the Board is then "suspended" in either event until either a majority of a quorum at a membership meeting votes to confirm a Board/corporation officer's action or until a petition representing the majority of the members is presented to do the same.

The membership also retains the "final vote" of any corporate action by the ability of them to pass corporate resolutions ("standing rules") that can control how the organization must be run. These standing rules may be passed by a majority of a quorum present at a scheduled meeting or may be brought into effect by a petition signed by two-thirds of the voting membership. These would be binding on the operations of the corporation, as long as they are consistent with local, state, and federal statutes/regulations.

An additional mechanism that keeps democracy at the forefront is the ability of only ten percent of the members (or ten members, whichever is more), to send a petition that would result in a special meeting of the membership. A majority of the Board of Directors may do the same. Thirty days notice must be given to the membership as to the date of the meeting, whether called by the Board or by some of the members. Members may vote by proxy (either general or specific) on any issues that come before a meeting of the membership. Board members may also use proxies in Board meetings.

With all these mechanisms and safeguards, member control capability within CI is ample and abundant. As in any organization nothing, of course, can fully insure the proper operation of that organization except an involved and informed and well-intentioned membership and similarly active and knowledgeable Board of Directors. Further, it is always necessary

for well-meaning people to be willing to be assertive in the face of what might be considerable opposition. This necessity is true in any organization and/or governmental unit in the world. Nothing can save one from himself but the several procedures outlined above give CI members the ability to be the final arbiters of CI actions.

Financial/Legal Matters

Three individuals currently serving on the Board of Directors have work experience and/or training in the field of organizational and/or professional finances. One of the major wys of failure, is through inadequate attention paid to a group's financial status. The presence of three financially savvy people on the Board thereby greatly decreases (but, of course, cannot entirely eliminate) this problem. An additional method of "self-checking" is that one of these individuals, from time to time, goes to the CI facility for an informal "audit" of CI financial operations. To date no irregularities have been found during these internal audits.

In addition to information being available to the Board, a regularly occurring financial statement is provided to all members present at the annual meeting. This statement is prepared by an individual with an extensive background in auditing and financial statements. Some of these individuals have financial expertise just as do some members of the Board of Directors. One member/interested person who works in the area of financial planning and who is from the state of Florida stated to this writer that he was more than capable of handily reading such statements and that their presence gave him good information that CI was being run in a responsible financial manner.

As an additional safeguard, these statements are placed, as well, on both the websites of the Cryonics Institute and the Immortalist Society. Further, the Immortalist Society, as has been its custom for several years, places both its own financial statement, as well as the financial statement of CI, within the pages of its magazine. A printed written record published independently of CI helps, in a minor way, to maintain a clear record of CI's financial activities, i.e., the record may not be changed without it being noticeable to someone double-checking such figures from the account published in the magazine and any statement published independently.

The provision of that record on both CI and IS websites allows that financial information to be readily available to numerous members and interested persons worldwide who may have financial expertise themselves. It basically makes it possible for anyone on the Internet to look at CI finances with a critical eye to errors and/or potential problems.

The Cryonics Institute has utilized, for years, the services of David Ettinger, who is Robert Ettinger's son, as the Board's legal counsel. Mr. Ettinger is well familiar with both Michigan law and the operations of CI and the challenges it has faced over the years. He has been in practice for a number of years now and has been involved in cryonics since his youth.

As additional legal resources, two individuals are on the CI Board of directors who are also formally trained in the law and both are graduates of law school (though, at present, both work in other areas than direct legal practice). The combination of Mr. David Ettinger plus the additional individuals with formal legal training has, in this writer's opinion, greatly aided to help allow CI to avoid legal problems to begin with. This has helped avoid the tremendous and sometimes organization threatening expense, time, and disruption in operations that is regrettably involved in litigation. The avoidance of litigation down through the years has certainly been an aid in helping insure CI has continued to survive and prosper.

Internal Quality Controls

CI has as its policy the goal of having its own internal inspections and quality control. This is a very positive thing as it enhances quality assurance at CI by the setting up of a systematic effort to insure that people, procedures, equipment, and finances (the four resources of any organization) are all operating/available in a way that allows quality service to the individuals that have been placed under CI's care. As in the area of hospital work, which this writer has been engaged in (with the exception of a one year period) since 1974, organizational efforts to keep up high internal standards, coupled with a periodic "outside" look by independent agencies/individuals, serve to strengthen any organization's safe and effective operations.

Some Specific Security and Safety Measures

A security company provides electronic surveillance for CI. There is an alarm system as well as numerous cameras placed throughout the CI campus to help decrease the possibility of break ins and/or disruptions to daily operations. Images from the cameras are accessible to CI employees with a cell phone app. Stickers announcing the use of electronic security measures are posted in prominent places to dissuade

any persons of ill intent.

An electronic air quality system exists that insures that excessive levels of nitrogen vapors/low oxygen levels are taken care of.

Patient records are kept in multiple locations, both inside and outside of the building, in secure, confidential, and fire resistant areas.

At 21250 Fifteen Mile Road, which is about two and a half miles away, is a local fire station. About four miles away from CI is the Clinton Township Police Department located at 37985 Groesbeck Highway. Officers of Clinton Township, as in most towns and cities, are on active patrol at any one time. For non-destructive first responders, CI uses the KNOX-BOX® Rapid Entry System.

CI maintains telephone lines at all times both for routine and emergency use. Both regular landline telephones and wireless cellular telephones are used.

Conclusions:

One of the longest standing providers of cryonics services has been the Cryonics Institute. It is governed through a methodology that allows relatively effective oversight by its members and by its Board of Directors. Due diligence is still, of course, as in any organization a necessity on the part of the membership/Board of Directors members but the governing structure is in place for them to do so. There are several "checks and balances" available both in the bylaws of the organization and in Michigan law that should be of considerable help in maintaining stable operations given that same due diligence by the membership/Board of Directors. CI's safe, efficient, and legally correct operation in a financially stable and efficient manner is greatly increased by the fact that individuals of special expertise are on the Board of Directors, especially in view of the fact that the Board of Directors is in charge of the day in, day out operation of CI. Nevertheless, members should be reminded that the ultimate fate of CI rests in their hands and each member should become as actively involved as reasonably possible.

A well-maintained and reasonably secure physical plant exists and is relatively near both fire and police assistance. Electronic security measures are in place. Police department assistance should arrive very shortly after any untoward incident occurs. Monitoring of safe air levels in the building exists with mechanical ventilation available as needed to keep air inside the facility at a safe level of oxygen and, therefore, inhabitability. Paid for by the financial assistance that was enabled by a trust administered by the American Cryonics Society, a sprinkler system helps keep fire danger to a very low level, especially in a building that is fairly fire resistant to begin with. Hand held fire extinguishers exist in the building as well. Fire department resources are relatively close by and should be a few short minutes away after any notice is provided to them. Patient records are duplicated and kept in secure locations. All cryostats have proven to be very reliable and have resulted, in the aggregate, to a cost savings to CI patients due to the lower than expected use consumption of liquid nitrogen by the cryostats. CI seems to be managing its finances in a way that should both be considered reasonably prudent and in a way that should alert the Board and/or diligent members to potential problems. With the addition of another facility, space for any reasonable number of patient inflow seems to be secure for the foreseeable future.

It should be noted clearly, in summation, that no examination regimen is able to absolutely guarantee proper operations of any organization. The Cryonics Institute seems, however, to continue to function in a well thought out and rational manner which can only lead to a reasonable expectation of its continued operation and the safety of individuals it cares for. There are, of course, extreme (and extremely unlikely) natural disasters for which one cannot be fully prepared for (i.e., the "Supervolcano" of Yellowstone Park erupting, the possibility of a giant asteroid hitting the planet Earth, etc.) and no reasonable amount of human effort, at present, can eliminate those devastating but extremely unlikely possibilities. CI continues, however, to apparently work diligently within its manpower and financial resources to deal with any reasonable and manageable threats to its continued existence and to its patient's safety. As more manpower and finances gradually become available over the decades, it is only rational to expect those efforts will be redoubled and that CI will continue to improve its operations. As reported in previous ACS reports, CI's operations give a reasonable level of assurance that individuals under the care of CI are in no immediate danger and that the prospects of their continued long term storage and care, at least for the foreseeable future, are excellent.

(It should be noted by readers that the American Cryonics Society is a totally independent organization from either the Cryonics Institute or the Immortalist Society and the responsibility for the contents of this report lies entirely with the American Cryonics Society).

FIRST CASE OF CRYOPRESERVATION OF A BRAIN IN ARGENTINA

September 9th, 2018

Introduction by York W. Porter, President, Immortalist Society:

Long Life is deeply pleased to offer this report from our friend Rodolfo "Rudy" Goya, long time cryonics advocate from Argentina. Dr. Goya's report should be heartening to cryonicists worldwide. It shows what a dedicated group of individuals can accomplish with a "can do" attitude in spite of substantial obstacles that may be initially in the way. Their use of communications between each other and with knowledgeable people in the fields of cryonics and cryobiology was especially noteworthy to myself as I can remember the days, prior to the Internet, when information about cryonics was much, much, much more difficult to come by than is the case at present.

This group from Argentina, apparently spearheaded to some degree in this particular instance by the patient's daughter, used communications extensively and kept going in that effort in their formulating of a working plan to keep them on track when the patient needed the team. For any individuals contemplating a similar effort or even just thinking about forming a cryonics group in their part of the world, a major suggestion would be to follow the example set in Argentina and to reach out actively to existing cryonics groups for some information and guidance. I have found folks in the cryonics community to hold very strongly to the viewpoints they have (yours truly included) but to also be, by and large, very open to communicating information to other individuals interested in the field. Take advantage of that willingness to share if you need to.

Speaking of the preparations for the situation Dr. Goya writes below in part "The task was extremely difficult…". I'm sure that statement is very, very true. But, again, they persevered and I'm sure it's equally true when he writes, "She was granted a 'second chance at life'." Deep admiration is due to this brave and determined group in Argentina.

FOREWORD (by Rodolfo G. Goya)

Mrs. Beatriz Lidia Billone was born in Argentina where she devoted most of her life to education as exemplified by her founding eighteen schools. A committed cryonicist, Beatriz lived in a country where, like in very many others around the world, cryonics was an unborn activity until recently. But her destiny was to become the first person in the country to be cryopreserved, which makes her a pioneer in the history of Argentinian Cryonics. She was granted "a second chance at life".

Like any human endeavor that aims at what most people consider an impossible goal, cryonics needed visionaries that were also men and women of action, ready to commit their lives to achieving their dream. Robert Ettinger in the US, the founder of cryonics, was such an individual. And within our tiny cryonics group, we have two persons of this kind, Mr. Francisco Lascaray and Mrs Maria Entraigues-Abramson, Mrs. Billone's daughter, who has resided in the US since 1992 but is part of our group. What follows is a brief narrative of Mrs Billone's case.

Beatriz Lidia Billone

Introduction

In 2012, former Cryonics Institute president Ben Best, visited Argentina, delivered a conference at the School of Medicine, National University of La Plata city, gave interviews to the media and that was the spark that ignited cryonics activity in the country. After Mr. Best's visit, a small group of individuals interested in cryonics began to consider the possibility of creating a self-help group in the country. Initially the progress towards the organization of a functional self-help team was very slow as we lacked the funding and critical mass of members necessary for enabling the group to implement effective cryopreservation of a brain, let alone a full body. A number of organizations including, but not limited to, the Cryonics Institute, Cryonics-UK and other organizations and individuals with cryonics and cryobiological expertise, provided us with valuable advice.

In late August, 2018, Mrs. Billone was hospitalized in Buenos Aires with a prognosis that allowed very little hope of a recovery. In August, Maria came to Argentina in order to arrange the best possible medical care for her mother. At the same time, Maria worked with our group in order to set up the best possible brain cryopreservation strategy that circumstances allowed, in case Mrs. Billone's medical treatment failed. The task was extremely difficult due to the unpreparedness of our group to face the challenge. Here we report the protocol used to implement the necessary preservation procedures for the brain of the first patient in Argentina to be cryopreserved and ultimately destined to be stored at a cryonics facility in the US.

Patient's clinical condition upon hospital admission

The patient was admitted on August 10th, 2018 to the Instituto Cardiovascular Buenos Aires (ICBA) presenting a septic shock caused by an abdominal infection focus consequential to an intestinal perforation related to diverticulits. She was a Caucasian female, age 78, with a clinical record listing obesity, sedentary life, insulin-resistant diabetes as well as cardiovascular and renal deficiencies.

Initial preparatory steps

As the health of the patient was progressively deteriorating and clinicians began to anticipate an imminent fatal outcome, our small group set in motion preparations for rapid cryopreservation of the patient's brain as soon as she was pronounced dead. Three members of the Argentine group volunteered to participate in the process namely, Mr. Francisco Lascaray (Buenos Aires city), Maria (temporary in Buenos Aires) and a third member residing in La Plata city, 50 km South of Buenos Aires. They were joined by general surgeon Dr. Néstor Balmaceda. The timing of events was unfortunate for member Rodolfo Goya who on September 4th had to travel overseas.

One of the first actions our group took was to request information and advice from a number of experts around the world and indeed we received, via Maria, plenty of advice from individuals knowledgeable in cryobiology as well as persons involved in cryonics organizations. One cryobiology expert suggested a perfusion protocol that took into account the limited technical and material possibilities our group had. From Kryorus, Russia, Valerija Pride and Elena Milova contacted Maria and suggested a couple of alternative procedures based on available materials and facilities. From Ecuador, Dr. Winston Jaramillo proposed a perfusion protocol that, combined with that recommended by the expert in cryobiology, was in the end the protocol we used. Dr Gunter Boden from Heidenau, Germany, offered to receive the brain for long-term storage. Bill Faloon from Florida contacted Maria and gave her advice on protective medications that should be i.v. administered to the patient while still alive. These were Vitamin B1, Vitamin C and Hydrocortisone, the purpose being to improve her health.

Final perfusion procedure

On September 9th, 2018, at 9:30 the patient was declared legally dead. Immediately, her head was covered with ice bags. At 11:30 an ambulance arrived to the hospital and the body was placed in an ice-cooled box for transportation to a thanatology/funeral parlor where it arrived at 12:30. At 12:45 Dr. Balmaceda and thanatologist Dr. Daniel Carunchio, began perfusing the brain by inserting a catheter into the right carotid artery and using a peristaltic pump to perfuse 5L saline through the head.

A cut was made on the left jugular vein to allow drainage of blood. The tubing connecting the saline reservoir, passing through the pump, and conducting the pumped solution to the body was covered with water ice. Saline perfusion ended at 14:15 (perfusion period, 1.5 h) and was immediately followed by perfusion with 5L of cold saline containing 13% DMSO (v/v) and 13% glycerol (v/v). The pumping pressure was kept below 3 pounds.

At about 16:00, after 1.45 h perfusion, brain removal began and ended at 17:15. It was immediately immersed in a 5L plastic beaker containing 9.3% DMSO and 9.3% glycerol in saline **(Fig. 1)**. The beaker was placed in a styrofoam container and was covered with water ice.

It was stored, first in a fridge at +2ºC and later the same day, at -16ºC into a standard freezer. The temperature of the container was monitored with a digital thermometer (range +70 to -50ºC). On September 10th, at 23:30, dry ice was added to the freezer in order to lower the temperature further. On September 11th at 4:40 the beaker (wrapped in towels to isolate it from the dry ice), was placed into a box with dry ice.

Finally, on September 12th, the box was transported to R Goya's research laboratory in La Plata city, where it was stored in a deep freezer, initially at -70ºC and later at -80ºC. The beaker remained there until February 4th, 2019, when it was transferred to a larger box with dry ice and taken by World Courier personnel to the airport for air transportation to Los Angeles via Miami. Currently it is in temporary storage in a very secure location pending tissue sampling to help enable scientific evaluation of the brain's condition. Ultimately it will be permanently stored at an existing cryonics facility.

Figure 1- *Patient´s brain immersed in cryopreservative solution immediately after removal.*

"The 'tragedy' of the slow growth of immortalism pertains mostly to them, and perhaps to you – not so much to me or to us, the committed immortalists. We already have made our arrangements for cryostasis after clinical death – signed our contracts with existing organizations and allocated the money. We will have our chance, and with a little bit of luck will 'taste the wine of centuries unborn'." ***— Robert C.W. Ettinger***

The American Cryonics Society's First Fifty Years

By Jim Yount

Caption of patient on stretcher with people grouped around: Pictured is the first San Francisco Bay Area cryopreservation, February, 1974. Patients were wrapped in alternate layers of insulating material and aluminum foil, then strapped to a "stretcher" before encapsulation, (going into a cryostat). Among participants pictured are Jerry White and Paul Segall, PhD., both now in cryopreservation.

$23.07 to Start a Cryonics Society

From little acorns (or maybe $23.07 worth of acorns) a cryonics society that lasts fifty plus years may grow!

Treasurer's Report of November 13, 1969

Balance of 11/15/69 ..... $23.07

Expenditures

Re-imbursement to secretary $10.00

For postage, etc.

Balance of 12/14/69 ..... $13.07

The minutes show that Dr. Grace Talbot and Dr. M. Coleman Harris had previously advanced $350 as a loan to pay for legal fees and costs to incorporation. Even at $373.07 the cost is well be worth it. What cost possible immortality?

In the Beginning

On the 12th day of January, 1969 the Articles of Incorporation for the Bay Area Cryonics Society (BACS), now known as the American Cryonics Society (ACS), were signed. It was not until December 10, 1969 when the Franchise Tax Board of California issued a letter approving of the society as a California not-for-profit.

February, 1974 was the date of the first "double encapsulation." Two patients, who deanimated within a few days of each other, have been placed in a two person cryostat which is sitting on its side. It will be righted by use of a "capsule rocker" invented by John Day. Liquid nitrogen vapor will next be used to further cool the duo before liquid nitrogen itself is introduced. After initial preparation, each of the patients was cooled down by use of dry ice. Currently multi-patient cryostats are employed for better efficiency.

The purpose of BACS was "Scientific and Educational Organization," as stated in the Franchise Tax Board letter. The Articles of Incorporation state the purpose as "research into cryonics and cryobiology."

More than a year of informal meetings followed this incorporation led initially by Dr. M. Colman Harris, a San Francisco allergist, who was to serve as first president and Chairman of the Board.

Incorporators: Dr. M. Colman Harris, Jerome Butler ("Jerry") White, Edgar Swank, Dr. Grace Talbot, Donna J. Allison, Lucius A. Cooper, Harvey DeCovnick, Pearl A. DeCovnick, John P. Hendricks, Michele Navarrete.

Early Considerations

The minutes of September 5th, 1969 give an idea of what issues the incorporators were considering.

"Dr. Harris read the following:

An attachment by R.C.W. Ettinger on Cryonics to a report on the Scientific Advisory Council of the CSA (Cryonics Societies of America);

1. A letter from Saul Kent of CSNY (Cryonics Society of New York) in favor of forming an independent Cryonics society in the San Francisco Bay Area;

2. A letter from Robert Nelson of CSC (Cryonics Society

of California) in favor of forming a Cryonics society affiliated with CSC."

(The minutes are unsigned, but appear to be from the then secretary Michele Navarrete. Item numbering and text within parenthesis were added by this author for clarification).

Viewed by looking back from our 20/20 hindsight of the year 2020 Dr. Harris' reading highlights some on-going struggles within the cryonics community.

The Cryonics Societies of America, meant to be an oversight organization to help guide fledgling local cryonics societies never really got going. Efforts to form such an oversight group have been tried a number of times since, but without success.

Regional Cryonics Societies

The question of whether regional cryonics societies should be independent or part of larger groups (perhaps chapters) was clearly on the minds of the founders.

> Robert Nelson would have liked to see the Bay Area group as part of the Cryonics Society of California. Saul Kent seems to have favored independent cryonics societies.
>
> Subsequent minutes show that Robert Nelson later changed his advice to that of making the Bay Area cryonics group a separate society, not part of the Cryonics Society of California.
>
> Many of the regional cryonics societies established in the early days of cryonics, as well those formed later, have been short-lived. The thinking seems to have been that cryonics preparation was, of necessity, local. Therefore, each region should have its own society that would freeze and keep local people frozen.
>
> Regional cryonics might have flourished if the practice of cryonics had "caught on" as many of the early supporters believed it would. Rather, there has been a centralization of efforts into several national or international organizations. That may change with significant increase in cryopreservations. After all, many people would like to have their frozen loved-ones close, just as they want cremated or buried family and friends near.

Lessons from the post Covid-19 world may also lend an impetus to local people doing more. Conditions can be such that sending a newly deanimated person cross country could be difficult or even illegal. That means that more of the procedure may need to be done locally.

Sign Posts

There are many significant dates and occurrences for BACS/ACS leading up to the present. Here are just a few.

1. Forming of Trans Time Inc by active members.
2. Freezing of first patients in February, 1974.
3. Establishment of first Bay Area facility through Trans Time.

Long time ACS President Jerry White holds a curious bird that flew into our office. The lady in the picture behind Jerry is his Mother Susan, now a patient at the CI facility as is Jerry along with his cat Lisa Jane. The caption on the cat picture reads: "A good friend is forever." ACS (originally BACS) pioneered the cryopreservation of companion animals with the freezing of the first dog in 1974. The curious bird was released back into the wild!

4. Freezing of first dog: September, 1974; through Trans Time. We believe this was first dog frozen for cryonics purposes globally.

5. Establishment of means to manage money to benefit people in cryopreservation.

6. Forms and trust documents to legally accept patients under Uniform Anatomical Gift Act.

7. Research to better cryopreserve people and companion animals.

8. Cooperative agreement with the Cryonics Institute for preparation and long-term storage of ACS patients.

The Next 50 Years

About the time BACS (later name change to ACS) was incorporating this author first because interested in enrolling in a program where one would be frozen soon after physical death. It seemed like such a logical idea that surely hundreds of thousands of people would be enrolling as well. Didn't quite happen that way.

As of the date of this article -- the middle of 2020 -- the two largest cryonics facilities between them claim only 248 cryopreserved humans ("patients"): whole bodies, heads, and brains were included in that count. Human patients sponsored by ACS number in the mid-twenties, along with a goodly count of companion animals. While the number of cryopreserved people and animals is small, ACS has done its best, and continues to do so, to give members good send-offs for their trips through time.

Will reanimation of our patients be possible in the next fifty years? If the future proves it possible to re-animate people and pets ACS patients will surely be among that number be it fifty years, a hundred, or whenever. In the meantime, they are snug in their cryostats in Clinton Township Michigan. They are very patient patients. After all, they have no appointments; except perhaps a rendezvous with destiny: date, place, and time unknown.

Caption: From left: David Crockett, Dr. Richard Mash, Robert Ettinger, Mae Ettinger, John Day. This picture was taken in about 1992 after a tour of the CI facility. A contract was signed making the CI facility, through a dual membership arrangement, the home for cryopreserved ACS members. Dr. Richard Marsh, along with his wife Lynne, are now patients at the CI facility.

R. Michael Perry

Building A Cryonics Community: Historical Perspectives, Society for Venturism

(Dr. Perry's Talk Was Given in the Fall of 2019 At
The Cryonics Symposium International Which Was Held At:
Church of Perpetual Life • 1855 McKinley Street • Hollywood, Florida 33021).

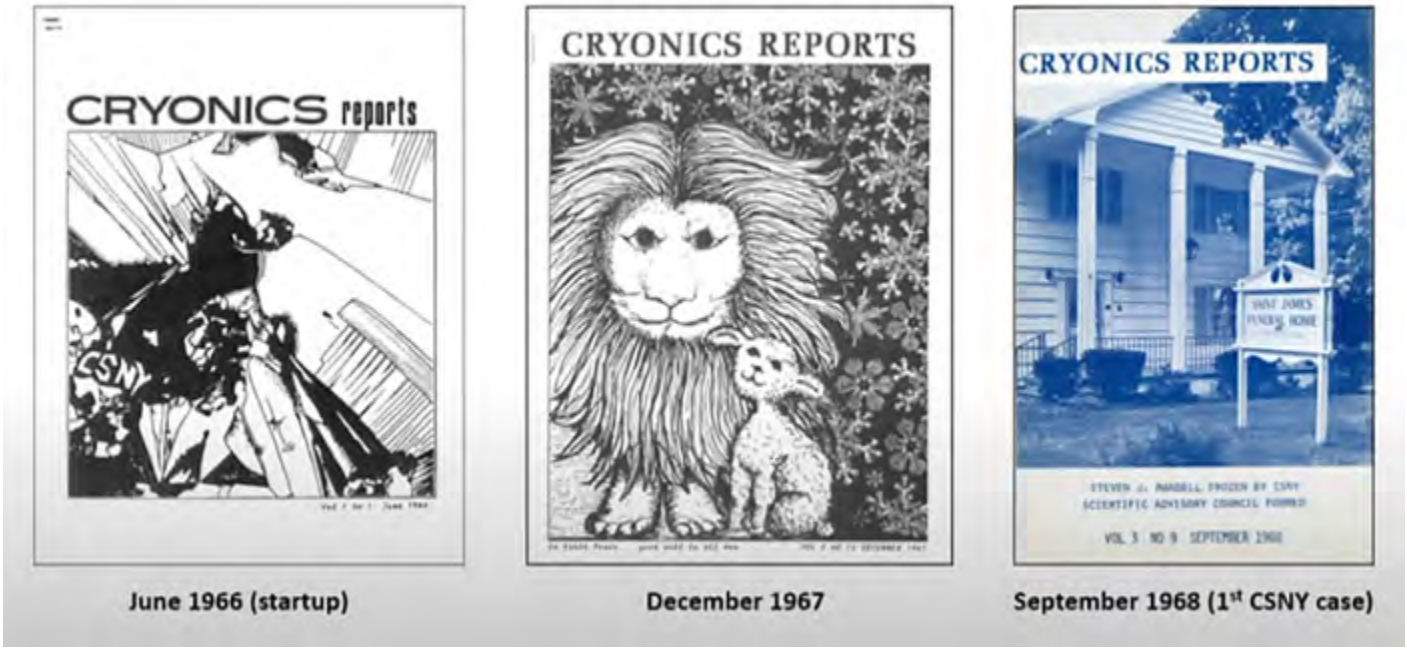
R. Michael Perry

Introduction by York W. Porter, President, Immortalist Society

Putting out Long Life is a pretty labor-intensive job. That doesn't excuse by any means the lateness of the publication that is, unfortunately, an all too-often occurrence. One of the easiest ways to get materials for the magazine in trying to speed up the process of printing is to lean on friends. My friend Mike Perry gave a talk that is reprinted below in late 2019 at the Church of Perpetual Life in Hollywood, Florida. The history of the cryonics movement is, I believe, very, very important. In all areas of life the saying that "People who do not remember their history are doomed to repeat it" is, in my humble opinion, absolutely true. We in cryonics need to keep up with improvements in technology both in cryobiology, nanotechnology, and any other relevant areas in doing the best job we reasonably can. At the same time, we have to recognize that people down through the decades of cryonics history have all been striving for the same result and that is the widespread use of this amazing and life saving concept. Without further comment, in the talk transcribed below Mike Perry does a great job of giving useful and interesting information about a glimpse into cryonics past.

(Note: This copy is, of course, a transcript of Mike's talk. During the transcribing, due in part to the usual problems of sound quality in any such presentation, minor errors may creep in. Also, some very light editing may have been done for the sake of allowing the text to read smoothly.)

Moderator Rudi Hoffman: Next we have Mr. Mike Perry. Mike Perry is… or Michael Perry, Ph.D. if you prefer the formal acronym, is a patient caretaker at Alcor. Hired at Alcor



June 1966 (startup) December 1967 September 1968 (1st CSNY case)

in 89, Mike is a director-ordained minister of the Society for Venturism. Therefore he is ready with ceremonies and memorial services for IRS recognized scientific and religious organizations. He has authored boatloads of books, that's my shortening of your bio, sorry, boatloads of books. As official historian of cryonics he has been voted best loved cryonicist by his colleagues. May I introduce Michael Perry.

(applause)

Mike Perry (jokingly):

I didn't write that, you said you wanted us to write a bio but I didn't write that one.

Rudi Hoffman: I made it up! (laughter)

Mike Perry:

All right, whatever. All right people. I, as you can see from the slide, I'm going to talk about building a cryonics community which, as I see it, is pretty much the main theme of this whole symposium or strengthening the cryonics community, whatever, and I want to go through some cryonics history. I better make sure I know how to do this. So go through cryonics history and then I will talk a little about this organization called the Society for Venturism which is a result of some building of the community too.

OK, We've got a lot of slides to go through in a short time so we're going to have to move fast. Well cryonics started in the 1960's by two individuals that had a similar idea but in some ways they were really different. On the left is Robert Ettinger and he is still pretty well remembered. On the right Evan Cooper, probably not as well remembered. Ettinger is known as sort of the founder of cryonics and wrote a book called *The Prospect of Immortality* which a lot of people have heard of and this sort of started up the movement going in the 1960's.

But Ev Cooper made an important contribution too. Both wrote books actually advocating the cryonics idea. The first version of these books came out in 1962. What you're seeing there is not the first versions but later editions you would say. As I said, the *Prospect of Immorality* by Robert Ettinger. *Immortality Physically, Scientifically, Now* was the title of Cooper's book. He used the pen name of Nathan During, which is N During. Unfortunately, as I'll get to later, he didn't quite live up to that last name but anyway.

Ettinger was in Detroit and Detroit was in an area where he was a physics professor. He was a technical advocate. He wasn't really an organization man. He was sort of forced to become that later with running the Cryonics Institute. He got the idea out and gave a lot of presentations about it and so on. But something more was really needed and that was where Cooper came in. He lived in Washington, D.C. He has been described as a remittance man who seems to have lived off of a small inheritance. So he was free to pretty much do what he wanted. But he was organization and community oriented and he started the first organization to promote what would be called...what would later be called cryonics. That's, of course, life extension, you know, controlling the aging process, the whole...everything. It was called the Life Extension Society or LES. It had a newsletter and had conferences. He had conferences each year. He was the first one to do that. He also wanted to spread this organization around everywhere so he had chapters in the U.S. and even overseas, as in England and maybe other countries.

Robert Ettinger

Evan Cooper

Here you see on the left is the very first newsletter of his organization that came out in January of 1964. That's the first page of the first newsletter devoted to the freezing idea. It wasn't, like I say, it wasn't called cryonics yet. And on the right is a later edition. They had gotten a catchier title by that time called "Freeze-Wait-Reanimate". That happens to be about the freezing of James Bedford which is one of the early well publicized cases I'll mention later partly.

First newsletter, Jan. 1964

Bedford Freezing Report, Feb. 1967

Well, he wasn't perfect. In the end, his organization was kind of autocratic. He believed that nobody should ever get any money for any work they did because it would taint their motive. He liked to be a one-man show. He was very sensitive and shy and retiring. Very thin skinned. Very courageous in some ways but in other ways he...I understand that one point there was a lot of...a lot of stuff going was on at one conference and he was embarrassed and he hid in the men's room for a while. Doings like that.

Well, I said that LES was starting chapters all over the place in different parts of the country and one place was in the New York City area. There were people there that were really enthusiastic about this whole idea and they wanted to work with Cooper but Cooper didn't work with them too well and they started up their own group. One of those people was named Karl Werner.

Karl Werner

I think he worked in art and architectural design. He was that kind of a person. Anyway they wanted to have a name for their organization that wouldn't look like Life Extension Society. So he took the Greek word "kryos" that means extreme cold and there was some TV show about the bionic man or something and put them together and came up with cryonics. That was used for the new organization, the Cryonics Society of New York or CSNY. The name cryonics, though, was so catchy that it ended up being used for the practice in general and not just one organization. Anyway, CSNY was the second major organization to get going. The two main people doing this were Curtis Henderson and Saul Kent. Saul Kent is still with us today and he has been active a very long time. Curtis Henderson was cryopreserved a few years ago and is at the Cryonics Institute.

Back to 1966, which is where we are now, they were determined to carry out cryopreservation in patients for storage. Cooper wanted to do that too but this other group was going to really try to succeed. They published their newsletter. They organized chapters across the United States. One thing they did in 1966, Curtis and Saul got in their car and just started going west from the New York area and made a cross-country trip visiting other groups. They helped to start

Curtis Henderson

Saul Kent

two organizations. One was the Cryonics Society of Michigan and Michigan that's where Ettinger was. Another was the Cryonics Society of California, in that state. Like I said, initially they were just chapters of CSNY. They would actually break away and be their own organizations after a while and they did other things let's say with Saul Kent.

But they still maintained ties with Cooper through Saul Kent. Saul attended the LES conference in October of 1966 in Washington. And here's some newsletters of CSNY. The very first one that they put out was in June of 66 which would be on the left. December of 67, I've always liked that cover about the lion being friendly with the lamb. I think cryonicists hope for that too, not just religious people, they hope everything is like that.

"Sarah Gilbert" – April 1966
Cryo-Care Equipment Corp.

James Bedford – January 1967
Cryonics Society of California

Marie Phelps-Sweet – August 1967
Cryonics Society of California

And September of 68, that's the first newsletter that reported on one of their cases which is Steven Mandell who was one of their members and in July of that year he was frozen by them. But he wasn't the first one to be frozen. If we want to consider those people, on the left is a woman. I think her name was...I think the name she went by was Sarah Gilbert but I'm not sure. And so looking at the records, the records are not very easy to come by. So I put that name in scare quotes, it could be something else. Anyway, she was frozen in April of 66 by a company called Cryo-Care Equipment Corporation. It wasn't a chapter of LES or CSNY either one. Their idea was that they would make capsules to store people in but they wouldn't have a real organization to, members and all that, they would

just sell capsules to the companies that did that. But they had their capsules and people started getting in touch with them about getting somebody frozen. And they had to turn down... .I'm going to really have to go through these last few faster because it's such a good story that I have to tell it.

Anyway, people think that I'm sometimes (audio difficulties)... So we had this lady...this is actually a reconstruction from several other photographs that would not have been very good to show like they were. In April of 66 she was embalmed first, stored in a mortuary for about 3 months and then frozen.

The next one was James Bedford who was frozen starting immediately after pronouncement with preservation that was a lot better. He was not embalmed; he was cryoprotected though his cryoprotection was crude.

The third case was Marie Phelps-Sweet, which started in August of 67, and her case was even better, she was perfused better. So important improvements were going on.

The first two freezings were not much of a problem for the movement because relatives were paying for it. But the third one, they weren't and Marie Phelps Sweet and her husband had almost no money. So that meant that the cryonics community was called upon. The third freezing, that of Marie Phelps Sweet, caused a real problem because she was well known and respected in the community but had no money. Cooper was caught off guard because he had promised a free freeze two years before that. But it was hard to get anybody to really do it and now he just couldn't deliver. There were other problems. Cooper hung up the phone when someone called him about it thinking it was a crank call. Ettinger wrote a nasty letter. Cooper was embarrassed, called off his conference, scheduled for October 67, but he still proceeded with determination to get land and facilities.

In the end he managed to build a laboratory on some farmland that he had got. Someone loaned him money but there were a lot of problems with this. You can see that nice looking pond in front of that building but it was very wet in that area and the basement flooded and he finally just had to just give it up. And he had another hobby of his called sailing. His life was his boat, the *Pelican*, so he neglected his newsletters and correspondence.

Around 1970 he just walked away from the whole thing and went out and sailed his boat which probably was fun for a while but finally, unfortunately, he was lost at sea in 1982. So the cryonics community had to go along without Cooper. You had Cryonics Societies of New York and California but they became separate organizations. Sad to say even though they were growing for a few years, they failed too.Here is a showing of most of the early cryonics patients, up to 1973. There were two others I couldn't show because I don't have pictures of them. I want you to look at the one that is the second one; the top row second from the left is James Bedford. James Bedford is still frozen today. He happens to be a patient at Alcor. Now look at all those others. There's fourteen other people and there's two others I couldn't show. Not a one of those preservations lasted very long and some of those are cryonics pioneers and others were just people put in by relatives and so forth. Very sad but we're talking about fifteen people there were lost..., sixteen people and one was not lost.

Basically the early organizations failed. There's a lot of claims (that) were made that in some cases people were acting maliciously and all this but I think it's safe to say that the main reason for failure was not knowledge or malfeasance but just lack of funding and lack of commitment.

This shows Robert Nelson who was head of the Cryonics Society of California standing beside a huge capsule that was supposed to give them a fantastic capability, what they called the Cryotorium. But it was impossible to get that capsule working properly. They didn't have a place to house it or anything so never used it and he was one of those that failed.

Cryonics organizations in the 70's managed to become much stronger and had better financial policies and so on so since then they have done much better. New organizations like the American Cryonics Society, Trans Time, Alcor, since they came into existence the fiscal policy of having up front payments and so on. I've run almost out of time here so I'm going to talk a little about the Society for Venturism.

It was an organization, one to promote cryonics. A philosophical, you could even call it a religious organization, although some people were uncomfortable with that. The brainchild of David Pizer whom you see in a duplicate form there. He liked to talk about philosophical issues like whether you could survive in a duplicate.

Of course, pro-cryonics. We have IRS status as a scientific, religious, and educational organization. Religion broadly interpreted like the courts interpret it and not like some people interpret it. We try to do what is right and we advocate and promote the worldwide conquest of death through technological means. We are committed to helping the cryopreserved be revived if that's possible. I don't want to talk too much about religion as I don't have enough time.

We also issue "I am a religious objector to autopsy" cards saying that. Again, religion broadly interpreted. We have had festivals and conventions and things like that. This is one that we had in 1994.

Ventureville was a project. We tried to provide living quarters for people so we could have a cryonics community. We tried but that one didn't work too well. We also carry out weddings. We have a ministerial program. Rudi mentioned that I am ordained as a minister. So is Dave Pizer. Here you see him carrying out a wedding in 2007.

And finally we do fundraising for needy cryonics cases. That was James Swayze who didn't have any money and wanted an arrangement. Marcelon Johnson was somebody that we tried to raise funds for but her relatives had her cremated without our knowledge as to what was going to happen which was a very sad thing since she was a cryonics pioneer. If I had more time I would tell a lot of things about Marce Johnson.

That gentleman is one of our patients. He got in trouble for dealing with drugs and lost his money and everything and then he got cancer when he was in prison for selling marijuana and other crimes like that. Anyway we raised funds for him and he is at the Cryonics Institute.

James Swayze - 2000

Marcelon Johnson - 2008

William O'Rights - 2008

Kim Suozzi - 2012

Aaron Winborn - 2013

Elizabeth Pugliese - 2014

There is one of our famous cases. Kim Suozzi who got cancer when she was in her early twenties. She was a bright college student and she had little money and we managed to raise enough with the help of another organization that was called, I think back then, the Immortality Institute. They are called Longecity now. We got her to Alcor. She was cryopreserved in January of 2013.

There is another gentleman named Aaron Winborn who had ALS. We raised funds for him so he could be cryopreserved. He is at CI.

There's another one named Elizabeth Pugliese with her little dog named Benji. See that dog there. We were able to raise funds for her. She was really a tough case. First of all it was a brain chemically preserved and then put into liquid nitrogen. The dog Benji happens to be a patient at Alcor too.

It looks like I've got one minute left. We have, like I said, conventions and stuff. That was our convention in Laughlin, Nevada in 2013. You can see Dave Pizer is in the center and next to him is Don Laughlin who provided the facility for us have this convention.

There are other societies like us that promote cryonics. Terasem, Church for Perpetual Life, Society for Universal Immortalism.

Problems are not easy but we must persevere.

Thank you.

(Applause)

Rudi Hoffman, Moderator: Outstanding, Anybody else can listen but I would listen to that all day long. I'm truly sorry we have to cut that off. You know history is important and this guy understands history.

For those wanting to listen to Mike Perry's talk (as well as other speakers) you can go to:

https://www.youtube.com/watch?v=OtUQ7Ut4XCM

The Affordable Immortal

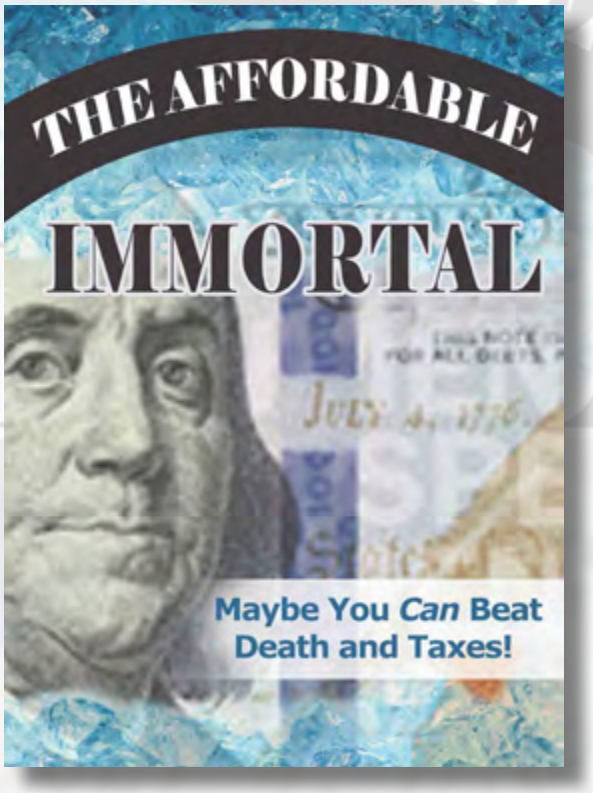
By: Rudi Hoffman

Email: rudi@rudihoffman.com • Phone: 386-235-7834 •

Website with "Quote Request" form and short cryonics video can be found at www.rudihoffman.com

Introduction by York W. Porter, President of the Immortalist Society and Executive Editor, Long Life Magazine

Rudi Hoffman continues his exposition on the affordability of cryonics in this issue by taking an interesting "side road" that talks more about the reasons for cryonics as opposed to exactly the nuts and bolts of financing the endeavor. All financial decisions, from buying life insurance, to saving for retirement, to investment in the stock market, to buying gold, etc., etc. are all ultimately based on the goals of the individuals doing the investing. Our friend Rudi points out quite clearly in this chapter that the reality is that life for most humans is a vast improvement over that which has existed in the past. There are goods and services readily available for humans nowadays that kings and queens did not have access to in centuries past. In one ready example, entertainment and information streams to us each and every day through the magic of the Internet. (I like to joke at work that if the cell phone towers collapse in my neck of the woods that we'll have to pass out tranquilizers by the handful and mainly to the hospital staff that are deprived of their regular "fix" of tons of photos, videos, and texts).



This isn't to say that things are perfect but it is to say that things are constantly getting better. In a personal aside, I had the privilege, as have many others, of visiting the U.S. Air Force Museum in Dayton, Ohio and walking through the Boeing 707 that former President of the United States John F. Kennedy used and which carried his body back from Dallas, Texas on that terrible day of his murder. I was intrigued to note that in the back of the plane the President and his staff had access to an electric typewriter, a telephone, and some Dictaphone equipment. There may have been some semblance of a fax machine back there that I didn't recognize but, at any rate, all of the equipment that the most powerful man on the planet utilized is now readily available and affordable to numerous individuals on the planet. That's just how much things have improved in this one field in the last few decades.

In the field of medical radiography, which is the area I make my living in, I remember reading the first article about computed tomography way back in 1975. I don't pretend to understand everything I read but I do remember thinking that these high tech pieces of equipment would probably only be available in major cities at major medical centers. How wrong I was! Generally speaking, I spend part of every weekend turning out images from these amazing machines on a regular basis. They and their newer counterparts, Magnetic Resonance Imaging equipment, are widespread through many countries and are utilized to produce medical images that were unheard of back when I started my career in medical imaging way back in the mid-1970's.

The main lesson of Rudi's book is that cryonics is a readily affordable endeavor for you and your family. A further lesson is that the future beckons to be an even better place to live than we can even imagine. I know that a young man growing up in the hills of Virginia back in the 1950's and 1960's would never have dreamed that things in the early part of the 21st Century would have been available to him just a few decades later. Don't deprive yourself of the wonders that the future may hold. Join cryonics today!!

Chapter 6

Is Your Life Better Than Grandma's?

(Why You'd Want to Be Revived in the Future)

By Rudi Hoffman

The next day was reserved for decorating for Christmas. While Jerry did not believe every story and fairy tale about Christmas, he did enjoy the celebration, the lights, the decorating, and the cultural phenomena that made up the whole holiday season.

His favorite grandmother, his Dad's mother, Jane, was here helping put ornaments on the tree. Jerry always found this activity nostalgic and meaningful, as he recalled earlier Christmas seasons. Grandma Jane was getting up in years, and clearly slowing down a bit at 91, but her mind was still remarkable. She had been a college professor most of her life, with a background in public advocacy for quality public education. She also had an astonishing memory and would often quote large passages from the books she read. Jerry remembered her legendary library, and the many happy hours he had spent in that quiet corner of the house curled up with one of her books. Jerry loved Grandma Jane for many reasons, but especially for her wide-ranging erudition and astonishing breadth of knowledge.

A Visit With Grandma

"Tell me about your earliest memories, Grandma Jane," requested Jerry. "Let's let this Christmas tree sit for a while, admire our work, and have a cup of tea. I would love to hear you talk about how life has changed during your lifetime."

Grandma Jane sat with surprising grace, taking the offered cup of tea from Jerry. It was just Jerry and Grandma Jane in the room now. The rest of the family was off shopping, and Jerry had wanted to have this conversation with Grandma Jane for a long time.

"Grandma Jane, you were born in the early part of the 1900's. Can you tell me about the changes you have seen? Do you think that humanity has made progress? Is life getting better or worse for most people?"

"Well, Jerry, I am glad you asked these questions, because my answers are probably different than most of my contemporaries. It seems that everyone I talk with and all the television news and media seem to talk about is how violent and uncivilized we have become. Most people seem to think that our life has gotten worse. Grandson, I am here to tell you, as someone who has been around a long time, that the reality is exactly the opposite."

This was surprising to Jerry. He had expected the usual homage to the glories of yesteryear which his other grandparents always provided. "Do you really think so, Grandma Jane? I mean, look at the news. It seems every day the news gets worse. We have violence, wars, mass shootings. Do you think the human condition is better now than in years past?"

Grandma Jane was reaching in her oversized purse where she always kept books she was reading.

"Jerry, I am going to tell you a secret, in fact, one of the most important secrets of my life. But first, I want to explain and provide some solid reasons and documentation about why I am so positive about the future. I have a couple of books here that speak directly to the question that you and I have had many discussions about, basically, whether life is getting better or worse for most people?"

"What is the secret, Grandma Jane?" Jerry was fascinated that his favorite relative had a big secret, and he couldn't wait to find out what it was.

"I promise to tell you, Jerry. But first I want to tell you about why I am so convinced that, for most people on the planet, life is, by every metric, simply better than it has ever been."

The Future Looks Great

Grandma Jane pulled some newer, but clearly well-read hardback books from her purse. "Have you ever heard of Peter Diamandis?" she asked.

"Hmm, let me think," responded Jerry. "Yes, I think he's the guy who was involved in those X Prizes, where they give prize money out to groups who are the first to do technologically difficult tasks. Didn't they have a competition a few years ago to see what groups could get a spaceship into near earth orbit and then relaunch it?"

"That was indeed an X Prize event, Jerry," observed Grandma Jane, making Jerry feel like a happy schoolboy who was the only student who could respond to a teacher's quiz. "And there are a lot more X Prize contests for all sorts of science fiction technologies, like a real world medical device equivalent to Star Trek's 'Tricorder' and software that enables inex-

pensive computer tablets to provide education to children in remote villages. But Diamandis is also aware of what he calls the "Grand Challenges" facing humanity. This book, documents some of the challenges we face as a human race and what is being done to solve them." Grandma Jane handed the book to Jerry.

"Like overpopulation and world hunger? And maybe water shortages and environmental pollution?" Jerry asked as he took the book, reading some of the endorsements on the back cover, wondering where Grandma Jane was going with this and what it could have to do with her secret.

"Exactly, Jerry. It is no secret that we have poverty, overcrowding, shortages of food and water, and violence in various places around the globe. Most people feel, because of the way popular news and media disseminate information, that these problems are worse than they have ever been."

"The surprising reality, Jerry, is that the mass starvations and horrific dystopias predicted by authors like Thomas Malthus and Paul Ehrlich simply have not happened. Turns out that most of the smart guys who predicted the future to be terrible were simply terribly wrong. Not only are most of us not starving, but of the seven billion or so of us on the planet, about 6 billion are wealthier than humans have ever been. And I am not just talking obvious things like cars, houses, clothes, access to clean water, electricity, good lighting, and savings plans. By more important metrics like life expectancy, health care options, and even a hugely important thing called justice, the average human today is far better off than the average human of fifty or a hundred years ago."

"Jerry, I have been around a few years. Even in my lifetime, I remember going outside to the backyard to get water. Of course, we didn't have indoor toilets with running water, we all had outhouses. Going into town, only about ten miles away, was a big deal, since the cars were unreliable and not a single road was paved where we lived. We were so excited when we got a phone! It was a party line, of course, but it made life so much better. People who carry their cell phones in their pockets these days have no idea of the amount of time and energy they save by being able to communicate to just about anyone on the planet without leaving their chair."

Jerry pulled out his iPhone and observed, "Yes, this device is really a piece of 23rd century technology that most of us can afford. I have heard there are some 7 billion smartphones on the planet, each of them providing access to more information than governments or royalty could have possessed just a few decades ago."

Grandma Jane's eyes sparkled behind her bifocals as she continued Jerry's point. "It is not just that phones have gotten better. We have access to things like computers, flat screen televisions, LED lighting, and transportation options that kings and queens could not have had a few generations ago. Your nice but modest home here is more comfortable than a drafty castle a king might have lived in during the Middle Ages. Even a hundred years ago, most people lived hard-scrabble lives of uncertainty and poverty. Lives aren't just longer, most of us are healthier."

"And we are just getting started!" she exclaimed with an enthusiasm that belied her years. What we are talking about here, Jerry, is the big paradigm shift that most people don't seem to understand, although it is pretty obvious to me. Don't listen to the windbags who keep telling you that the good old days were better! I was there, Jerry. I promise you, the good old days, as the kids say today, really sucked!"

Jerry smiled at his wise and beloved grandma's use of the vernacular.He realized he was thinking of Jane as an intellectual colleague rather than just his favorite relative.

Jane was on a roll. "But here is the other part of the big picture. Not only is life better, richer, fairer, healthier, and more intellectually stimulating, it has more options than it did 50 years ago. the trend is accelerating at breakneck speed. Check out some of the trends that are coming. Diamandis, in this book, documents how progress in artificial intelligence, robotics, infinite computing, ubiquitous broadband networks, nanomaterials, and synthetic biology are exponentially growing technologies that could enable greater progress in the next few decades than have occurred in the past two centuries!"

Jerry was unsure how to respond to this level of enthusiasm about the future from someone as old as his grandmother. And, he did note with amusement that she was sneaking a peek at the book jacket as she spoke to him.

"There are all sorts of emerging technologies outlined in this book, Jerry," enthused Jane. "Things like 'vertical farming' and a technology that turns polluted or salt water or even raw sewage into high quality drinking water for less than a penny a liter. And, wealthy tech entrepreneurs who are committing their billions and their talent to making the world and the future better."

Jerry was delighted to see Jane's obvious excitement about future lifestyles. It was such a refreshing difference from the

pessimism and negatively that seemed to be the natural habitat for most everyone he talked with. Was his grandma crazy? Was this over-enthusiasm about progress just her particular version of senile dementia? She certainly seemed articulate and to have her worldview grounded in documentable facts.

"You know, Jane," Jerry said after a short pause, intentionally leaving out the honorific of grandma, "I think I get what you are talking about, and I know my life probably doesn't seem as hard as yours. You had poverty and privations I can only imagine, growing up in a rural farm. You managed to educate yourself and pulled yourself up to a career in academia. No wonder you feel life is getting better, because it got better for you. But that is not everyone's experience. While my problems at work and at home may seem small compared to what you experienced growing up, or what maybe a billion humans alive today face, wondering how they can meet even basic needs, my day to day life just does not feel that much better. I am almost embarrassed to admit it, but much of the time my life is just not much fun."

There was a long pause while Jane absorbed and considered Jerry's words. As a function of her training, or maybe it was patience born of years of working at being genuinely wise, she seemed to hear not just the words Jerry said, but the intention behind the words. She knew Jerry to be a reasonably happy, successful individual. From the outside, most people would think Jerry did not have a problem in the world. But Jane also was privy to the frustrations that Jerry often felt, the powerlessness, the despair, the depression that even well-adjusted people often feel. Jerry had, over the years, shared all these with Jane, in deep and meaningful dialogues.

Jane slowly took a sip of tea, allowing the silence to grow. Jerry was trying to express something deep in the human condition. Since most of us are far from the poverty and deprivation that comprises most of human history, why aren't we happier? We are living in the Golden Age that people dreamed about for centuries, and many of us feel miserable a majority of the time.

"Jerry, I think I hear what you are saying," Jane began slowly, looking Jerry in the eye with the direct gaze that was part of her uniqueness. "And, I think it is a central question that we need to figure out as individuals. Why aren't all the improvements in lifestyle, the comforts, the wealth, the relationships, all the good things we have at our disposal improving our everyday experience? Why do these not seem to make us happier?"

Jane continued, her voice softening now that she was not championing the joys of the future. "You know, Jerry, there are a lot of very talented and wise people who have wondered the same thing. The short of it is, I simply don't know. What I suspect is that it has something to do with how evolution would select specific traits. If you pay attention to bad news, like a lion rustling in the grass who may eat you, you pass on your genes. Bad news is simply more attention grabbing, because it has survival value. The happy-go-lucky caveman who did not obsess about threats is not our ancestor. He was probably killed."

"Because bad news has such compelling power, and media outlets are designed to generate eyeballs and viewers, bad news is what we hear."

Jane continued, "We don't see headlines proclaiming, *More Humans Are Prosperous, Well Fed, Housed, and Clothed Today*

Than Ever Before in Human History!"

"Here's another headline you probably won't see: *The Odds of You Dying by Violence Are a Fraction of What They Have Been in the Past!* But, according to extensive research documented by Stephen Pinker in his book *The Better Angels of Our Nature,* this is also true.

"Jerry, let's table the deeper philosophical and maybe psychological question of, 'Why is nothing ever enough to help me feel satisfied?" and focus for a moment on the question about, 'Is life getting better for most people?' Don't forget the basic fact that the average life expectancy in 1900 was about 42. So, since we are both older than 42, we would probably not even be alive to ask these questions if we lived just four generations ago!"

Jane put her teacup down, wanting this conversation back on the track she had planned. The two books she had pulled out remained on the table.

"Jerry, there is good reason to believe the future is going to be amazing! Not only in giving us options we can hardly imagine right now, but in enabling emotional technologies which could mean people could be genuinely happier! What if future shrinks could figure out the mechanism and chemistry of joy, enthusiasm, bliss, and love of life? What if the crude drugs which are currently used to enhance mood could be made and individualized to enable you to feel better than you felt on your best day ever?"

"Excuse me for sounding like the college professor I was, Jerry, but I wanted to recommend to you another book which also helped me change my paradigm about the future. This is *The Rational Optimist: How Prosperity Evolves* by a geneticist by the name of Matt Ridley. It's kind of a precursor to the Diamandis book. Ridley also uses charts, documents, and hard data to show how life has improved for the vast majority of humans. It is really a fun and inspiring book, partly because Ridley reminds us of how far we have come and why we have good reasons for optimism about the future."

"Okay!" Jerry smiled as he halted what threatened to turn into a lecture from his highly educated, but sometimes didactic grandma. "You have convinced me! Or at least convinced me to read or peruse your books. If you'll leave them with me, you can trust me to read them before your next visit. I can't promise they will remove my occasional cynicism about life, however."

"I really think they may help you see a trend toward something we'll call the perfectibility of humankind, Jerry. Oh, and I promise to disinherit you if you don't return my books in good condition. But, I promised you a secret, and this whole discussion about the future has simply been to prepare you for something I probably should have shared with you years ago."

A Secret Revealed

Jane looked around the room, scooting her chair a bit closer to Jerry in a conspiratorial manner. Her voice and manner became very deliberate, her articulation even better, as she disclosed her secret. "Jerry, because I want to see the future, and I am old, I knew I needed a way to bridge the gap that stands between where medical technology is today and where it will be in the future. Back in 1990, I signed up for cryonic suspension, which means I will be cryogenically preserved when I am pronounced legally, but not biologically, 'dead.' "

Jerry's jaw literally dropped in amazement. Here he was thinking about cryonics, and his favorite relative was already signed up! Knowing how relatively few people on earth are signed up for cryopreservation, Jerry simply found this a shockingly unlikely coincidence.

"Grandma Jane, are you serious? This is amazing! For the last few months I have been looking into signing up for cryopreservation myself!"

As Jerry continued to ponder the shocking revelation that his forward thinking and remarkable grandmother was signed up for cryonics, the coincidence began to diminish a bit. The willingness to try new things and the sense of excitement about the future that he shared with his grandmother were probably correlated with the small but growing fraction of the population that was willing to take the gamble on cryonics.

"Jerry, this is terrific! How great would it be if cryonics could actually work, and you and I could see each other in a hundred years or so?" Hey, that reminds of another book. Thomas Friedman's recent book *Thanks for Being Late: An Optimist's Guide to the Future* describes how global forces are converging so that scientific advances are exponentially accelerating. The revival part could be perfected very soon!"

Jerry was fully engaged, "Wow, I can't wait to read all those books. But, meanwhile, even from what I've already learned about cryonics, I've got a big question for you. How are you handling the funding part? Cryonics is not cheap."

"Jerry, when I signed up about 30 years ago, I bought a pretty

good size life insurance policy. I signed up with the Cryonics Institute in Michigan, as a lifetime member so I could eliminate any further dues. While it was a sacrifice at times to invest in the premiums, because I was already in my 60s when I bought the policy, I got as much coverage as I could afford. I thought there was a good chance the cost of cryopreservation would go up, and like everything else, it has."

"I also did everything possible to stuff more money into the policy when I could, so it would have enough cash value to pay for itself. I realized that it would be hard to pay for a policy after I retired, so I paid money into the policy in the early years. I don't have to worry about it now. It is guaranteed to pay the death benefit whenever I die, although I have not paid premiums in many years."

"Why didn't you tell me about this earlier, Grandma? I have about a zillion questions about this cryonics thing! Aren't you worried about all the things that could go wrong and keep you from getting a good cryopreservation? You live alone, so how would the right people be notified? What if you die in a plane crash or over the ocean? Who else have you told about this? And why the heck didn't you let me know about this earlier?"

"Slow down, dear Jerry!" Jane chuckled gently. "Yes, there are logistical questions. And there are clearly some circumstances that would prevent my body and brain from being preserved. We call these existential risks. And, Jerry, I do my best to prevent these. One of the reasons I am telling you about my cryonics arrangements is that I need your help."

As Jane said this, she straightened her posture even more in her chair in order to look at Jerry as directly as possible. Jerry found himself looking almost into the depths of her soul through those still bright eyes. "Grandson, you are absolutely right that even being signed up and fully funded for cryonics is no guarantee of getting a good cryopreservation. I need someone I can count on to help make sure that I get the best cryopreservation possible. That means if I am near death and can do so, I will go to the city where my cryonics organization is and 'die' under controlled circumstances in the hospice there."

"On this trip, I would like you to go with me. But if something happens where I can't get to my cryonics vendor while alive, I need you, Jerry, to help with the logistics of the cryo-transport team. If I can't do it, I need you to make the calls to my cryonics vendor, and maybe do some basic medical protocols. These are outlined on the wrist bracelet here." As Jane said this, she took off the bracelet on her wrist. While Jerry had noticed the bracelet before, he now understood it to be a cryonics bracelet, with instructions on whom to notify, and some protocols to preserve brain pattern.

Jerry followed this line of thought and was happy to help. He was only concerned that he might not be up to the task, and he didn't want to let Grandma Jane down - especially not on something as important as the potentially life-saving technology as cryonics. And there were so many unknowns. Despite his reservations, after an appropriate amount of thinking about this commitment, Jerry responded, matching her deliberate and clear voice in making an unbreakable pledge.

"Jane, it would be my honor to do everything in my power to get you the best cryopreservation arrangements possible." He let the sentence hang in the air for a moment, wanting the level of seriousness to be conveyed to his beloved grandmother. After an appropriate moment of silence to give his pledge the dignity of a lifelong commitment, he continued. "We'll want to go over details later together, maybe even have a conference call with the cryonics organization and the cryotransport team, but the short response is that you have my promise to be your champion to make this work."

Tears glistened in both of their eyes as these two visionary adventurers got up from their chairs to embrace. They each had a deep sense of the epic battle they were engaged in together. In the early half of the twenty first century, two deeply sincere and well-informed individuals were endeavoring to do battle with the ultimate foe of humankind. In this room, at this moment, illuminated by Christmas lights, these people were making plans to enable the light of their lives to have a chance to continue. The drama of this epic conversation was not lost on either of them, nor did either harbor delusions that their mission would be guaranteed to succeed. In the traditions of the most noble explorers, they were setting out on a less traveled path, using the best information and technology available.

The joy they felt on this Christmas holiday exceeded any holiday they had ever experienced. To make a connection with a fellow human on this level and to be fully engaged in such a worthwhile endeavor made both Jerry and Jane feel more alive than they had felt in a very, very long time.

Robert Ettinger: *The Legacy Continues*

Introduction by York W. Porter, President of the Immortalist Society and Executive Editor of Long Life Magazine

Robert Ettinger on "Perspectives of Progress"

Introduction by York W. Porter, President Immortalist Society, Executive Editor, Long Life Magazine

I was very privileged to know Robert Ettinger personally and to call him a friend. He was one of the most intelligent persons I've ever met and a very fine man on top of that as well. One of my often-repeated stories is how, riding with him in a car one day, I told him of my first reading of The Prospect of Immortality. In the discussion I mentioned that one of my reactions after I had gotten through this fine volume was "Why didn't I think of this?". In a kind manner, Bob said that this was frequently true of ideas in human history and how that ideas that we now take for granted didn't seem obvious to everyone when they first were brought up. In my own mind, I knew though that I never, never, but never would have thought up cryonics, not in a dozen lifetimes. Thank goodness that he did for which, if we are able to succeed, many of us will be most grateful.

In that discussion and others, I found my friend to always be well grounded in reality. I suspect that some of this may have come since he was a member of the "Greatest Generation", the term used by Tom Brokaw to describe those who had to go through the Depression, World War II and other tough times in life but who had emerged to be part of the effort to make the world a better place. Part of that reality grounding may have come from the fact that Robert Ettinger spent months and months and months recovering from wounds sustained as a combat soldier serving in the United States Army in World War II. Whatever the source of that effort to make the world a better place, in Robert Ettinger's case it would culminate in his concept of what would later be called cryonics. He spent the rest of his life fighting for this concept, spending thousands of hours of his own time and thousands of dollars of his own money to make his dream a reality.

In addition to be grounded in reality, though, he was definitely a visionary as well. His ability to make logical connections about the possibilities of mankind reminded me of the railroad executive in the 1800's who predicted that trains would eventually be developed that would run routinely at speeds of a hundred miles an hour. At the time the executive made his prediction, I'm sure he met with some pretty marked skepticism. Now, of course, such magnificent trains as the TGV in France hit the predicted speed (and more) on a regular basis.

In the article that follows, which originally appeared in this magazine back August of 1983, Robert Ettinger writes of some of his visions of the future. While many of his predictions are still to become reality, there is no doubt that over the past 40 years, many things in life have changed and changed for the better. The ubiquitous use of the Internet, e-mail, and other changes in ways that people live and work are proof of that. Still, it is interesting to read Robert Ettinger's thoughts about "things yet to come".

Perspectives of Progress

By: R.C.W. Ettinger

Until we achieve perfection (and reasonably cheap) suspended animation, cryonicists must rely on expectations of progress. If people frozen by crude methods are eventually to be rescued—revived, repaired, rejuvenated, and improved—then we must look to substantial advances in medical sciences, and enough gains in wealth to pay for sophisticated technologies. To bolster our determination, we must occasionally look beyond the short time horizons of everyday life.

One bit of perspective is provided by Peter Drucker's article in the *Wall Street Journal* July 19. Although he is making a different point, Mr. Drucker says that in the last 75 years, an auto workers real wage, as measured by the number of cars he could buy with an hour's pay, has increased more than forty fold. (And this does not take into account the improvement in the value of the car, which now has much better tires and many features previous lacking. Maybe we should knock off a little for lack of running boards and rumble seats.)

For those of us who have forgotten what Grandfather's and Grandmother's world was like, Drucker points out that the industrial worker 75 years back only made about $250 a year—if he was lucky enough to work all year—with no Social Security, no pension, no group life insurance, no health insurance, no sickness pay, no unemployment compensation, no workmen's compensation, and no extra pay for overtime or Sunday. And, of course, with no contraceptives to speak of and few household conveniences, the industrial worker's wife had to work just as hard at home, if not harder, just to hold things together.

Was the last century just a fluke of economic progress? On the contrary, there is every indication that the future will be *much* better, and progress much faster. After all the achievements of the 20th Century were accomplished in spite of vicious wars and numerous counter-productive social traditions. Although future wars could be even more vicious, they seem increasingly less likely—and a growing immortalist outlook could make an important contribution; martyrs are made by misery, despair, delusion, and short time horizons.

As for the specific technical underpinnings of major growth,

two sets of factors are plainly visible, plus others less definite.

The first factor concerns microbiology and genetic engineering. While the details are never discernable in advance, it is virtually certain that *huge* contributions both to dollar growth and to the quality of life will pour in as we learn to control the character and growth of organisms from bacteria to people.

For those who haven't noticed, we might tick off just a very few of the easiest and earliest of these contributions, including: hardier and more disease-resistant crops; crops tolerant of salt water; meat animals thriving in deserts; ocean crops; bacteria that can reach remote and difficult oil deposits and convert the oil to usable forms; bacteria that can manufacture pharmaceuticals, including human hormones, cheaply and voluminously; bacteria that can metabolize and concentrate rare minerals in the earth or the sea.

A little further down the road, when tissue and organ culture becomes feasible and economic, there will be steaks without cows—cheaper and more humane; and indeed, for most plants and animals, only the useful parts will be grown, rather than the whole organism...All this is not just scratching the surface, of course, and does not even touch on the advances that will affect humans *directly*.

The second factor in major change concerns robots and artificial intelligence. Computers have been getting cheaper (or, if you prefer, more powerful) at an astonishing rate, even without any real bootstrapping. (I paid $30 last year for a calculator much better than one that cost $150 a few years earlier.)

Although we do have programs that help design computer circuits, and also help design new programs, and although some industrial processes (spot welding, for example) are being done by robots, this field (CAD/CAM, Computer Assisted Design and Computer Assisted Manufacture) has only made the tiniest beginning. I am *not* among the optimists who expect genuine AI (Artificial Intelligence) soon. Miniaturization may have a long way yet to go before a mechanical brain can approach a human brain; possibly organic switching and memory devices may need to be integrated with hardware to get a workable mechanical brain.

But there appears to be no reason at all why a machine cannot, in principle do any kind of thinking, including goal-directed and creative thinking. (Whether a machine functioning at the human level would require consciousness, and the implications of this, have little importance for this particular discussion.) Sooner or later---my guess would be later on than a few decades, but earlier than a century—there *will* be intelligent, self-replicating machines. The implications of this—just the *economic* implications—are so immense that hardly anyone really appreciates them.

Owning a robot which is intelligent and which can replicate itself or/and improve itself would be almost like owning Aladdin's lamp (assuming the robot would remain loyal and controllable, or that the robot could be made an extension of a person). Anything it can't do now, it will figure out how to do, and in jig time. If it can't figure something out, it will improve its own brain until it succeeds. To make anything, all it needs, besides the organizing intelligence, are matter and energy, which are essentially unlimited. It follows that our society, and eventually every single individual, will have *unlimited* wealth. With modest assumptions about the future of our value systems, this means that every cryonic suspension patient, no matter how badly damaged, could be given the services of an army of genius robots with unlimited resources, devoted to the project of repairing/rebuilding that patient. It will not matter if the cost is greater than the entire current GNP of the world.

All right, many people think cryonicists are a little peculiar, even without talk of unlimited wealth. But the lesson of scientific history, simple yet so difficult, is that B follows from A, and finally we get to Z. With logic, conclusions follow from premises, and if you can't fault the premises or the logic, you had better swallow the conclusions.

The possibility of conversion of matter into energy ($E=MC^2$) can be shown in several ways. Einstein used one route, a relatively (sorry) difficult one; many years later, he found a much easier route involving a thought experiment in mechanics. This thought experiment, of stunning simplicity, was proof clear-cut that matter and energy are equivalent; but no one would have accepted the conclusion—that is, no one but an Einstein, who put logic ahead of preconceptions or cultural conditioning.

We can't all be Einsteins (and even Einstein wasn't an Einstein in most areas of life), but we must try to believe what logic tells us (after making every effort to sift out pseudo-logic or false premises), and to act on our belief. Our lives are on the line.

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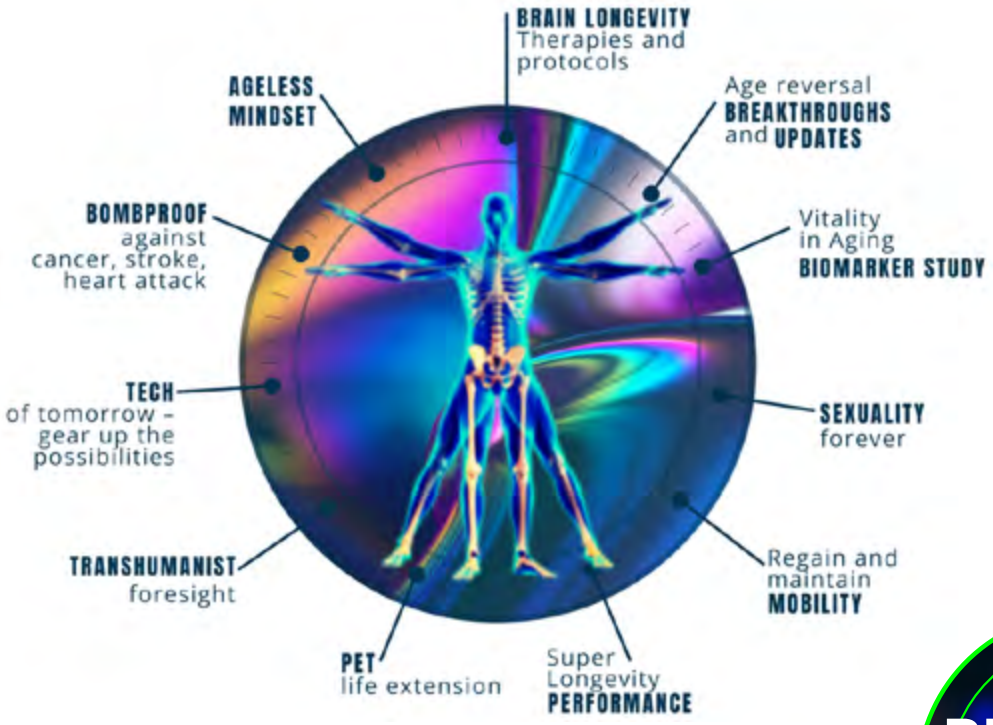

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the american cryonics society

cryonics society

Reasons to Join ACS

1) We have been in business a long time

We were incorporated in 1969; our first cryopreservations were in 1974. We are a Calilfornia nonprofit corporation formed to advance research into cryonics and cryobiology. Two well-known medical doctors, Dr. M. Coleman Harris and Dr. Grace Talbot, were among our founders which also included Jerry White and Edgar Swank. Jerry and Edgar are in cryopreservation at the CI facility.

2) We work closely with the Cryonics Institute (CI)

Starting with our first frozen patients, ACS has maintained funds to keep these patients frozen. This responsibility has required that we focus on a practical approach to managing our resources. By working closely with CI with it's ever increasing "patient load" we are able to keep long-term storage costs down while adding to the funds of both ACS and CI.

3) Initial Preparation by Suspended Animation, Inc and other Options

We don't have all the answers. Cryonics depends upon anticipating future technological developments, and taking action NOW to benefit from those breakthroughs. This means there is a speculative aspect to cryonics. We give our members a wide a choice of options which include initial preparation by Suspended Animation, Inc. We also offer less expensive options. See our website for all choices.

4) ACS Utilizes the Tools of Risk Management

The ACS program employs the tools and techniques of risk management, such as inspection and verification of good practices at facilities where ACS members are in cryostasis. Financial planning includes diversification and decentralization to help guard against adverse financial consequences for ACS assets..

5) ACS Sponsors Research

Some research programs of the American Cryonics Society have been very well publicized. The successful cool-down and recovery of Miles the Beagle led to appearances of ACS scientists on Good Morning America, The Sally Jessy Raphael Show, and The Phil Donahue Show.

6) ACS Maintains its Own Emergency Response

Long term storage should be centralized but stand-by and emergency response, by its very nature, is local. In that regard we maintain emergency response equipment and responders in the San Francisco Bay Area which can also can be deployed to most locations in the US.

7) ACS is a Democratic Society

One internal control, absent in some organizations, is the fact that ACS is a democratic organization. That is, our governors are elected from among the members, by the members. A number of procedures have evolved over the years, to help ensure that this electoral procedure is safeguarded.

8) ACS Patients have Live-Member Sponsors

To ensure that the obligation ACS has to people in suspension continue to be considered, ACS has a program whereby live members act as "Sponsors" on behalf of the people in suspension. Sponsors get reports of suspension facilities housing the patient, and information on investments used to benefit the continued suspension of that person. Whenever possible, a good friend or relative of the person in suspension is named as a Sponsor. We prefer that the Sponsor also be enrolled in our suspension program.

9) ACS Manages Growth

The strength of a cryonics society is not dependent upon how many people it has in suspension. There must be a reasonable allocation of resources to meet the obligation of those in suspension. Societies who accept underfunded or non-funded patients must then make up that deficit through raising membership dues or by receipt of an endowment. Both of these fund raising methods involve significant risk, with results considerably in doubt.

The American Cryonics Society is not a kingdom built on a house of cards. The balance between those enrolled in our pre-need suspension plan, those in suspension, and the allocation of resources between these two programs is balanced to ensure our survival and prosperity. We are not dependent upon luck, endowments, windfalls, or even growth to sustain us.

10) We Make use of Individual Trusts

While other societies have more recently begun using trusts, the American Cryonics Society adopted this technique as its primary recommended funding vehicle in 1982. The individual trust is a mechanism to isolate and manage risk, ensure some oversight, obtain acceptable tax treatment, and address various problems and requirements unique to each individual member.

11) "Freeze-Wait-Reanimate" is our Only Purpose

The American Cryonics Society is not a "Utopian" organization. We don't have a political agenda to transform our current political or social structure to make our version of a perfect world. That is far too ambitious an undertaking; and besides, we don't all agree on what political and social changes are desirable. We are a cryonics society: PERIOD. Our program is simple: freeze-waitreanimate. We support cryonics research, education, and information dissemination. That is what ACS is about. That is ALL ACS is about.

Website: americancryonics.org

Email: cryonics@americancryonics.org

Phone: (408) 530-9001 • Toll-free: 1-800-523-2001.

Mail: American Cryonics Society - P.O. Box 1509, Cupertino, CA 95015

The ACS office is located at 355 W. Olive, STE 210, Sunnyvale, CA 94086
Office hours are irregular.
An appointment is required for a personal visit or interview.

Final Thoughts

York W. Porter - Executive Editor

Lost on the Mountain....

Missouri Mountain in Colorado

As I've written before, I'm a big fan of modern technology. When I was growing up in the hills of the very western part of Virginia, I took a few hikes through the woods, camped overnight a few times on the banks and in the campgrounds of a nearby reservoir, and went sleigh riding through the snow on a hill that was within a hundred yards of the house I lived in at the time. In the latter case I am not a fan of Old Man Winter at all but that home was equipped with an outstanding coal fired furnace that would run you out of the building rather quickly if you turned the thermostat up too high. All along and no matter what the seemingly harsh conditions were to a teenager who was dabbling at "roughing it" in an entirely amateur fashion, the comfort of my parents 3-bedroom brick home always beckoned as a refuge from any real danger. Sort of like one of the characters near the end of the movie *Deliverance*, I fully appreciated chrome, steel, and other modern conveniences. I'm definitely the type of guy that intends to enjoy the blessings of modern technology for as long as I possibly can.

Being a "technophile" makes me wonder about those that seem to subject themselves willingly to situations in which modern technology isn't much involved. I have to admit that I look upon them with a certain degree of admiration but I also realize that I will never be one to join them. One such "modern pioneer", if you will, was one Shuei Kato. The tale of Mr Kato gives some useful information for those of us who are seeking extended physical life.

Missouri Mountain in Colorado rises to an elevation just slightly over 14,000 feet. Such "fourteeners" are popular hiking and climbing conquests and there are frequently trails marked for hikers to follow. One Saturday morning, the 36-year-old Kato decided he would try the trek to the top of Missouri Mountain

A photo of Shuei Kato shared by the Chaffee County Sheriff's Office.Facebook

although he would be doing it alone. His regular hiking partner was unavailable on this particular day. Still the popular mountain was only rated at a 2 to borderline 3 on a 5-point scale of climbing difficulty on the hiking trails. Kato thought he'd have no problem.

He started out that morning around 7 o'clock. Anticipating a one day trip, he packed what he thought was adequate food and clothing, as well as a small camp stove for the brief number of hours he would be away. Figuring he would be on well-marked trails, he decided not to take a compass. He thought instead he would use his cell phone to make photos on the way up that he could use to orient himself with on the way back down.

The weather forecast for that day was excellent and the good weather enabled Kato to keep the summit of the mountain in sight as he patiently worked towards his goal. He was so confident of the hike that he had told his wife he would be at home sometime that afternoon. On beginning his trek, at first there were meadows and creeks that gradually gave way, as Kato climbed in elevation, to a treeless mountain environment.

Making the summit that was his goal was an ultimately successful effort and that success occurred a little after eleven in the morning, roughly a mere four hours after he had begun his trek. Unfortunately the trouble really began at that point. Kato realized that in spite of his previous climbing and hiking experience that he was plain lost. The upper part of the trail was snow covered on his way up but during that part of the hike he just had to keep the summit in his crosshairs and keep working his way uphill toward that goal. When he arrived at the summit, he realized he had lost his bearings. By that time fresh snow had covered the tracks he had made on his way up to the summit When he looked around he simply couldn't figure out which way he should go in order to safely descend this massive mountain.

He sat for an hour and tried to get a handle on just where his position was. No matter how much mental effort he put forth, one direction seemed about like the other one. He tried a few snowy furrows but each one led him to terrain that was well above the climbing skill level that the trail he had been on was rated at and would have proved quite hazardous to navigate. As Kato put it "I might as well have been blindfolded and spun around in a circle". It was a tense and quite dangerous situation to be in.

Trying to reason his way out of his dilemma, Kato decided he was on the steep north side. He thought if he slowly picked his way down it would eventually lead to the approach trail he had taken on the way up. He knew from his position at the mountain's peak that he had about five miles of hiking to go and that he had already spent an hour of precious daylight at

the top trying to figure out where he was. With no set plan of hiking in mind, he started working his way down the mountain as best he could. Nothing but nothing looked familiar to him at all. Photos he had taken on the way up in order to substitute for his lack of a compass and to help guide his descent were worthless to him. In his mind nothing looked like he thought it should.

He finally saw a sign that was marked *Elkhead Pass* but it still wasn't clear which way he should go. For the rest of the daylight he continued to move in the direction he hoped was right. Along the way he thought he recognized a bridge but wasn't totally sure he had been in that area before. It was still true that none of his photos helped him as they still didn't seem to match any of the terrain he was located at. He powered down his cell phone to try to save what little of the dwindling battery power it had left.

As the sun began to set he was convinced he just had to be near his car and the combination of hope and adrenaline kept him moving. Several more hours passed, however, and he had no success finding the car or even asphalt. With his flashlight losing power due to the rapidly dropping temperature, and with the darkness of night speedily approaching, a little bit of panic set in. He had promised his wife he would be home in the late afternoon and he was anxious to get back to where he could at least contact her and tell her he was all right. The first night passed, however, in a sleepless fashion as he kept moving and trying to find the way he needed to go.

Early the next morning offered a glimmer of hope as a helicopter was flying overhead. Trying to catch its attention, he tied a red jacket to a pole and waved it frantically. It was of no use. Spotting a knoll, he spent two hours trudging up it in the hopes that the cell phone service that had eluded him thus far would be available there. It turned out to be simply a lost two hours of effort in his attempt to make contact with anyone. When he clicked his telephone's power back on he had a moment of hope that help would soon be on the way. That moment came to an abrupt end when the very last of the battery power in the cell phone ran out and the phone totally died. No call would be possible from that point on.

The realization set in with Kato that he was in a life and death struggle. It wasn't just a matter of locating his car. It was a matter of whether he would ever be able to find his way out of the wilderness at all or whether, as others had done, he would die alone in the cold environment he found himself in. The only thing he knew was to keep moving. That movement was depleting energy but he believed that the option of not doing anything would lead to sure and certain death. He tried to keep up his strength by nibbling from time to time on the meager amount of food he had taken with him. By the time night came again, however, Kato was exhausted. Driven by his physical state and coupled, perhaps, with his meager nourishment, hallucinations occurred in which he mistook the sound of running water as a car blaring music. Every tree seemed to have a trail sign on it. These mirages made him continue to move in a vigorous but futile effort to find some sign of civilization and help.

By the morning of the third day, the wind had kicked up and snow was falling. Using some survival skills he had learned, the night before Kato had made a simple shelter of pine branches and had tried to stay awake since he was terrified that if he fell asleep he would never wake up again. In the meantime, however, search and rescue teams had begun trying to find him. It was sort of a "needle in a haystack" search but good fortune was finally on his side. As had happened several times during his ordeal, another rescue helicopter went over and this time Kato was able to start a small fire to help the chopper crew to locate him. It worked and he knew he was finally going to be rescued. He had spent over 80 hours alone in the cold and barren wilderness. He was lucky to survive at all.

Interviewed after his harrowing ordeal, Kato said "All kinds of negative thoughts come down when you stop thinking, or when you stop moving. I thought about it, that I might be done. But I'm like, 'I've got to survive. If I'm out of options, I'm dead, so I've got to always come up with new options and possibilities for what can I do.'"

Every human being alive at this moment will face his or her own test of survival. Hard as it is to contemplate, every single person will face the fact of clinical death at some point that will loom like a mountain in his or her life. Fortunately, an extremely intelligent and good man by the name of Robert Ettinger figured out an option for each of us. His concept, later named "cryonics", is that option. It offers a distinct and well thought out possibility for what can be done in the face of what would be an overwhelming difficulty. Join us in this effort today! You'll be very glad you did!

CRYONICS INSTITUTE

www.cryonics.org Technology for Life

2019 FINANCIAL REPORT

Statement of Assets, Liabilities, and Fund Balance resulting from cash transactions **December 31, 2019**

ASSETS	**General Operations**	**Contract Prepayments**	**Patient Care**	**COMBINED TOTAL**
Current Assets				
Checking accounts	155,002.86		0.00	155,002.86
Savings/Paypal accounts	1,735.87	0.00	0.00	1,735.87
Total Current Assets	156,738.73	0.00	0.00	156,738.73
Property, Equipment, And Other Assets				
Land	111,200.00			111,200.00
Building	468,184.86			468,184.86
Building improvements	311,655.80			311,655.80
Cryostats	786,666.52			786,666.52
Laboratory and office equipment	112,770.21			112,770.21
Furniture	18,422.80			18,422.80
Subtotal	1,808,900.19	0.00	0.00	1,808,900.19
Less: allowance for depreciation	(1,082,111.26)			(1,082,111.26)
Total Property, Equipment and Other Assets	726,788.93			726,788.93
Investments				
Cash balances in investment accounts		86,787.98	585,400.07	672,188.05
Investments, at current market value		599,330.20	4,217,606.48	4,816,936.68
CDs, at current market value		2,235,796.62	0.00	2,235,796.62
Total Investments	0.00	2,921,914.80	4,803,006.55	7,724,921.35

Note: Prepaid cryopreservation fees received before March 31, 2004 were recorded as income. After March 31, 2004 prepaid fees were recorded as a liability. All are refundable, pre-mortem. As of December 31, 2019, the remaining total of prepaid fees received before March 31, 2004 was $336,276.59. This amount is in addition to the Refundable Prepaid Contracts liability below.

TOTAL ASSETS	**883,527.66**	**4,803,006.55**	**4,803,006.55**	**8,608,449.01**
LIABILITIES AND FUND BALANCE				
Liabilities				
Withheld and payroll taxes	1,999.34			1,999.34
Payments received for prepayment account	0.00			0.00
Refundable Prepaid Contracts	0.00	2,370,557.40		2,370,557.40
Total Liabilities	1,999.34	2,370,557.40	0.00	2,372,556.74
Fund Balance				
Contributed capital	3,132,990.59	155,653.49	2,174,339.74	5,462,983.82
Accumulated balance (deficit) 12/31/2018	(2,108,603.11)	262,197.59	1,548,386.91	(298,018.61)
Net revs (exps) year ended 12/31/2019	43,036.09	194,327.83	833,563.14	1,070,927.06
Transfers	(185,895.25)	(60,821.51)	246,716.76	0.00
Total Fund Balance	881,528.32	551,357.40	4,803,006.55	6,235,892.27
TOTAL LIABILITIES AND FUND BALANCE	**883,527.66**	**2,921,914.80**	**4,803,006.55**	**8,608,449.01**

Statement of Revenues and Expenses resulting from cash transactions for the year ended December 31, 2019

	General Operations	Contract Prepayments	Patient Care	COMBINED TOTAL
REVENUES				
Cryonics services	382,253.89			382,253.89
Research grants	120.00			120.00
Dividends	0.00	13,793.84	99,451.92	113,245.76
Interest	0.00	47,861.19	11.05	47,872.24
Long term capital gains		0.00	2,241.07	2,241.07
Loss on disposition of asset	0.00		0.00	0.00
Net gain/(loss) on investments	0.00	132,672.80	742,364.72	875,037.52
Total Revenues	382,373.89	194,327.83	844,068.76	1,420,770.48
EXPENSES				
Advertising	5,108.36			5,108.36
Bank charges	7,917.49	0.00	9,935.32	17,852.81
Cryogens	53,056.21			53,056.21
Cryonics services and supplies	9,610.64			9,610.64
Depreciation	89,020.00			89,020.00
Facility supplies and services	3,628.71			3,628.71
Insurance	35,000.17			35,000.17
Interest	0.00		570.30	570.30
Legal and professional services	10,599.25			10,599.25
Maintenance and repair	7,351.66			7,351.66
Office supplies and services	8,476.82			8,476.82
Penalty	0.00			0.00
Pension	12,984.00			12,984.00
Research and development	(316.17)			(316.17)
Salaries and wages	180,177.80			180,177.80
Services-administrative	38,760.00			38,760.00
Taxes	31,786.57			31,786.57
Telephone	8,189.81			8,189.81
Travel	1,955.77			1,955.77
Utilities	13,620.07			13,620.07
Michigan Corporate Income Tax	(22,764.00)			(22,764.00)
Federal Corporate Income Tax	(154,825.36)			(154,825.36)
Total Expenses	339,337.80	0.00	10,505.62	349,843.42
Operating revenues over (under) expenses	**43,036.09**	**194,327.83**	**833,563.14**	**1,070,927.06**

Statement of Cash Flows resulting from cash transactions for the year ended December 31, 2019

	General Operations	Contract Prepayments	Patient Care	COMBINED TOTAL
Cash Flow From Operations				
Net revenues (expenses)	43,036.09	194,327.83	833,563.14	1,070,927.06
Add back non-cash expenses and revenues:				
Loss on disposition of asset	0.00			0.00
Depreciation and amortization	89,020.00			89,020.00
Total Cash Flow From Operations	132,056.09	194,327.83	833,563.14	1,159,947.06
Cash Flow From Other Sources				
New memberships	150,909.75			150,909.75
Bequests received	85,615.64			85,615.64
Fixed asset purchases	(13,784.93)			(13,784.93)
Decrease in withheld and payroll taxes	(5,144.39)			(5,144.39)
Increase in contract prepayments-net	0.00	387,764.77		387,764.77
(Increase)/Decrease in CDs	0.00	(349,104.54)	0.00	(349,104.54)
Other transfers	(185,895.25)	(60,821.51)	246,716.76	0.00
Decrease/(Increase) in investments		(113,311.92)	(881,585.36)	(994,897.28)
Total Cash Flow From Other Sources	31,700.82	(135,473.20)	(634,868.60)	(738,640.98)
TOTAL INCREASE (DECREASE) IN CASH	163,756.91	58,854.63	198,694.54	421,306.08
Changes In Cash Accounts				
Checking accounts	162,201.78	0.00	0.00	162,201.78
Savings/PayPal accounts	1,555.13	0.00	0.00	1,555.13
Cash in brokerage accounts		58,854.63	198,694.54	257,549.17
TOTAL INCREASE (DECREASE) IN CASH	**163,756.91**	**58,854.63**	**198,694.54**	**421,306.08**

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