

# Cryopreservation Funding and Inflation

## The Need for Action

A Discussion Article by the Management and Board of Directors of Alcor

September 30, 2011

*"Well organized public facilities on a substantial scale will probably exist fairly early in 1966, by present indications. The cost of cryostasis according to several independent estimates will be well within the \$8,500 figure I mentioned for preparation and perpetual storage, with easy financing through group insurance or similar plans."*

Robert C.W. Ettinger in his book,  
"The Prospect of Immortality,"  
paperback edition, postscript  
dated October 29, 1965

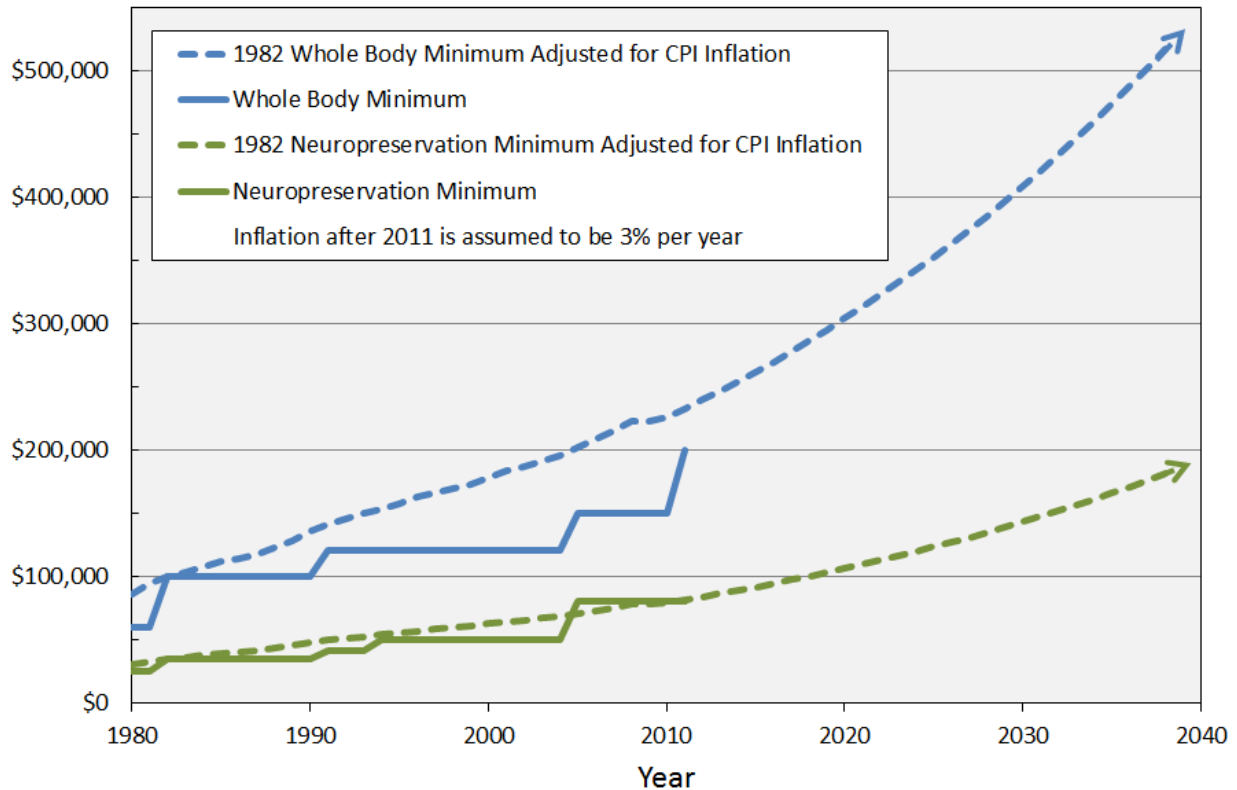
The cryonics economies anticipated by Robert Ettinger in 1965 were never realized. By the 1970s, the cost of whole body cryopreservation as offered by TransTime and Soma (the for-profit arm of IABS, which later merged with Alcor) was \$60,000 (1). As shown in Fig. 1, the nominal dollar cost of cryonics has risen steadily with Consumer Price Index (CPI) inflation since then. By 2011, the minimum funding for whole body cryopreservation with Alcor was \$200,000. Even this large number has not kept pace with inflation, so another increase will be necessary soon.

Whenever Alcor has increased cryopreservation minimums, it has traditionally only required new members to meet new minimum funding requirements. Existing members were "grandfathered," and allowed to remain members even if their cryopreservation funding fell below new minimums. This was and is believed to be important for members who due to age or disability become uninsurable, and would otherwise have to leave Alcor after many years of supporting the organization.

Alcor has managed grandfathering in a variety of ways. Younger members have been encouraged to provide more than minimum funding. Periods of rapid growth helped keep the fraction of members with less than minimum funding low. Savings programs, such as the "10% rule" of the 1980s that diverted 10% of all gross revenue to the Patient Care Fund, helped protect against depletion of long-term care funds by underfunded cases. However the main way that Alcor coped with grandfathering was by just taking the loss on what was historically a small number of underfunded cases. There was never a quantitative analysis of the impact of grandfathering, or a specific financial plan for dealing with it.

**Figure 1**

**History of Alcor Cryopreservation Minimums**



The sustainability of this has been questioned on numerous occasions. In 1991, Ben Best and others expressed concerns about grandfathering in a series of articles and letters in Cryonics magazine (2,3,4). Ideas for addressing the inflation problem were sought (5), but none were implemented. There was renewed public concern in 2009 when Charles Platt published an article about inflation and cryonics funding in Cryonics magazine (6), followed by a critical article on CryoNet in 2010 that accused Alcor of negligently ignoring the grandfathering problem (7,8). That same year Rob Freitas published a detailed quantitative analysis of Alcor finances based on publicly available information, and concluded that grandfathering was a serious long-term problem (9,10). Ralph Merkle subsequently published an article on cryopreservation funding that outlined 14 possible options for addressing the grandfathering problem (11). In 2011, the Alcor Board of Directors undertook its own quantitative analysis of grandfathering using internal data. The results of that analysis are below.

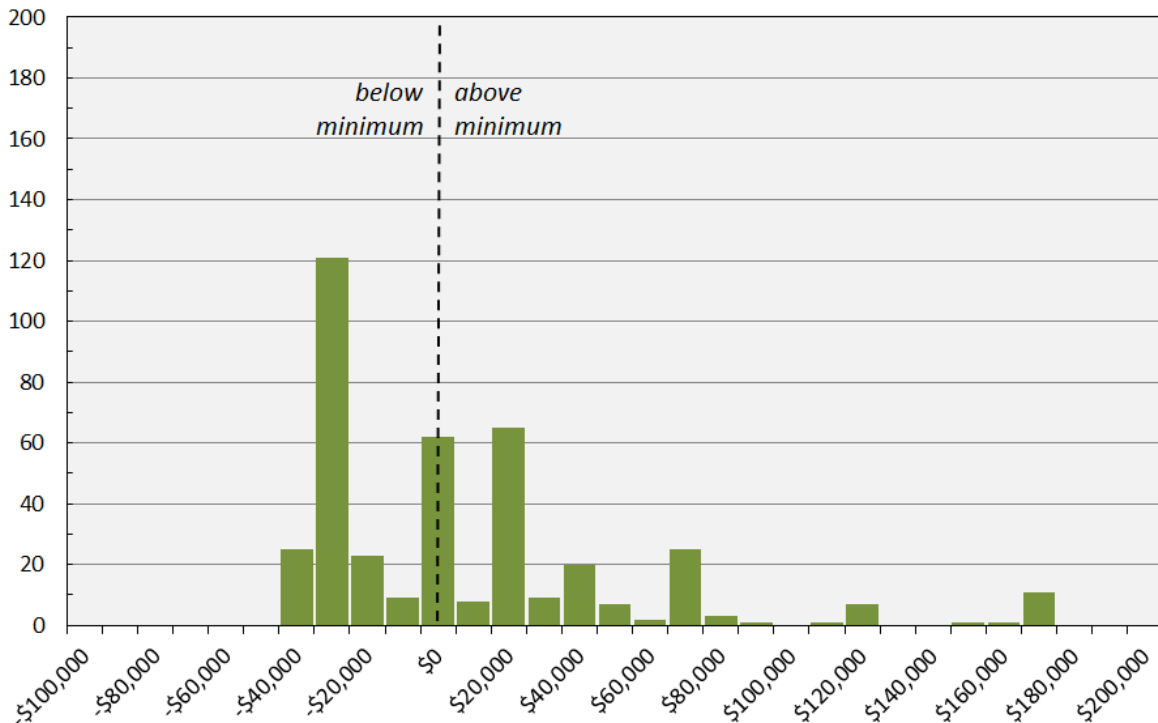
**Alcor Member Underfunding in 2011**

As of August, 2011, 944 members were signed up in expectation of Alcor performing cryopreservations costing \$141.6 million as measured by 2011 funding minimums. 533 members were signed up for whole body cryopreservation, and 411 members were signed up for neuropreservation. The total cryopreservation funding of those members was \$122.2 million, a funding shortfall of \$19.4 million. This net \$19.4 million shortfall consists of the total underfunding (\$32.6 million due to 641 under-minimum funded members) adjusted for the total over-minimum funding (\$13.2 million due to 229 over-minimum funded members). Most of this over-minimum funding was from 173 members signed up for neuropreservation with \$9.7 million in funding greater than minimum.

The distribution of members with funding below and above minimums is shown in Figs. 2 and 3 for neuropreservation and whole body members. 197 neuropreservation members were underfunded with underfunding totaling \$5.6 million. In 2011, as a group, neuropreservation members were not underfunded. Underfunding is a much more serious problem for whole body members. 444 whole body members were underfunded with underfunding totaling \$27 million. The problem is worsened by the fact that Alcor has failed to increase whole body minimums sufficiently to keep pace with inflation over the past two decades, so another increase in whole body minimums is necessary soon.

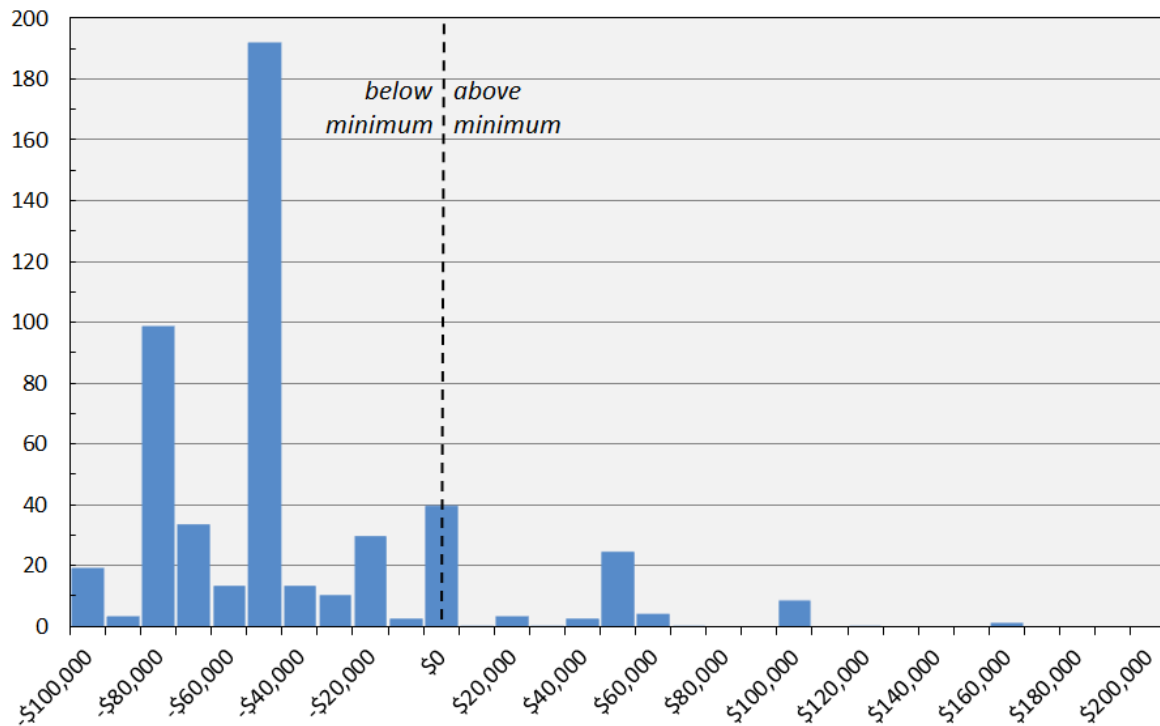
**Figure 2**

**Number of Neuropreservation Members in August 2011 vs. Funding Below or Above Minimum**



**Figure 3**

**Number of Whole Body Members in August 2011  
vs. Funding Below or Above Minimum**



Ordinary inflation of 3% per year will increase the \$141.6 million 2011 cost of cryopreservation procedures for Alcor's 944 members by \$4.3 million per year. This is an unfunded liability that will grow for decades until underfunded members are cryopreserved. (Most Alcor members are middle-aged as seen in Fig. 4.) The effects of this are already being felt. Actuarial analysis indicates that Alcor in 2011 can expect 9 cases per year, of which 7 will be underfunded by a total of \$380,000. This would be offset by an expected \$70,000 per year from cases with above-minimum funding, still leaving an expected case funding deficit of \$310,000 per year. This annual deficit will grow with time.

Underfunded cases have been a substantial contributor to Alcor deficits in recent years. They also deplete the Comprehensive Member Standby (CMS) fund, and especially compromise the Patient Care Trust. The effects of this can be insidious because in absence of careful monitoring, chronic underfunding of the Patient Care Trust (PCT) might not become obvious for years. For example, by 2010 Alcor was drawing on the PCT at a rate of 5% per year to pay the costs of maintaining its patients in cryopreservation. The PCT draw grew to this unsustainable percentage because underfunded cases led to the PCT principal not being as large as it should have been. The draw only retreated to 2.5% in 2011 after an unforeseen bequest fortuitously doubled the value of the PCT in late 2010.

What follows is a discussion of possible options for managing the problem of cryonics cost inflation so as to safeguard the long-term future of Alcor and its members. It concludes with an approach that is presently favored by Alcor’s Board of Directors and management.

**Figure 4**

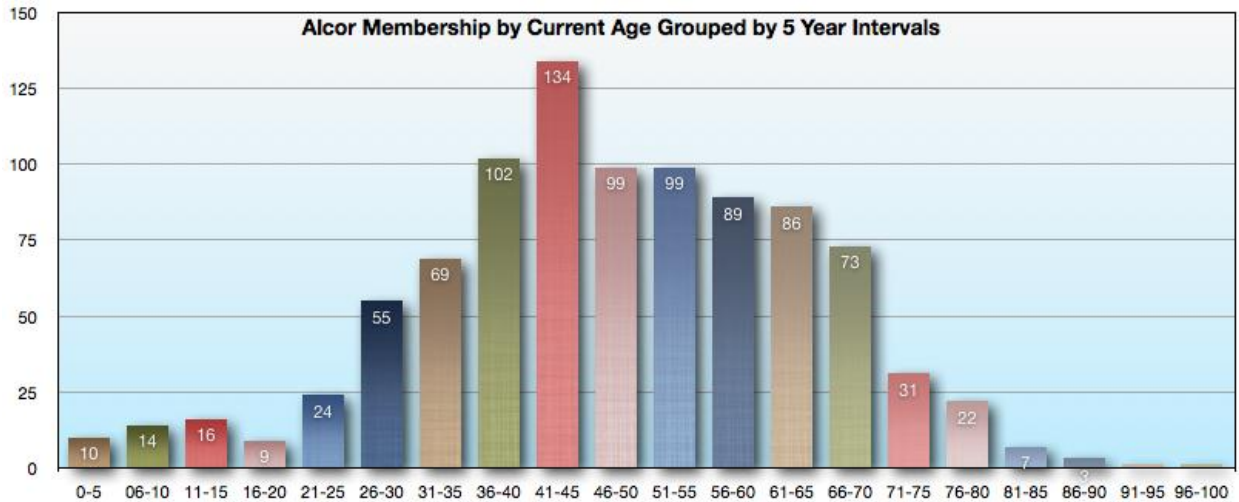


Figure 4 courtesy Alcor Advisor Geoffrey Shmigelsky

### **Option 1: Maintain the Status Quo**

This option is mentioned for completeness, but it’s really not an option. The above analysis should make clear that it is financially impossible for Alcor to perform cryopreservations for its present membership decades in the future in the manner that members have come to expect with funding as presently arranged.

### **Option 2: Just Cancel Membership of Underfunded Members**

The Alcor board does not consider this to be a viable option. It would be unfair to unceremoniously cancel members who supported Alcor for many years, and who may have believed that the funding they provided was sufficient indefinitely. Alcor views canceling as a last resort, and would prefer to create alternatives that would Alcor allow to work with each member to avoid this wherever possible.

### **Option 3: Contribute Some Part of Membership Dues to a Fund to Cover Underfunding**

This option has appeal because it would be a way for the dues paid by long-time members to finance their own grandfathering. It may be part of a solution, but it cannot be the

whole solution. Even if the entirety of the \$480,000 in membership dues collected by Alcor in 2011 could be devoted to such a fund, the fund could not keep up with the \$4.3 million per year inflationary increase in the costs of cryopreserving all Alcor members. Also, membership dues are presently an integral part of Alcor's operating budget.

#### **Option 4: The 10% Rule**

In the 1980s Alcor had a policy of diverting 10% of all incoming revenue to the Patient Care Fund, the forerunner of the Patient Care Trust (PCT). It has been suggested that if this rule were not abandoned in the 1990s, or if it were re-instituted, that it might substantially address the problem of grandfathering (12). This is not the case. Even if 10% Rule funds were placed in a fund earmarked to cover all grandfathering costs of cases (which are not just PCT costs), over the past 20 years the 10% Rule would have needed to be close to a 100% Rule to cover the \$19.4 million (and growing) difference between 2011 member funding and the 2011 cost of cryonics.

#### **Option 5: Use Extraordinary Income to Cover Losses from Underfunded Cryopreservations**

Although not a conscious policy decision, this has been the de-facto means by which Alcor has survived case underfunding. Grants from wealthy Alcor members over the past decade have helped bridge operating deficits. Windfalls from unanticipated bequests have boosted the value of the PCT, making up for many underfunded cryopreservations. Why not continue to rely on unplanned revenue?

Unfortunately one cannot plan on unplanned revenue. Furthermore, in absence of sound financial planning, past and potential future Alcor benefactors will be hesitant to contribute to an organization that is designed to lose money, and that needs ever-increasing subsidies as membership grows. There is a longer discussion of the importance of long-term planning in Appendix 2.

#### **Option 6: Increase Membership Dues to Cover Grandfathering**

In his 2010 [econometric analysis of Alcor finances](#) (10), Rob Freitas calculated that dues and CMS fees would have to be increased to \$1500 - \$1850 per year for every Alcor member to sustain the practice of grandfathering. This is likely unaffordable for most present Alcor members. Such a practice might even worsen the underfunding problem by disincentivizing members from providing any more funding than minimum at time of signup. Indeed, most members would need the savings in insurance premiums to pay such high membership dues.

#### **Option 7: Increase Growth**

Growth can reduce the percentage of Alcor members who are underfunded by loading the membership with newer members who signed up at recent minimums. However if the new members live for decades, this only increases the ultimate burden of underfunding.

### **Option 8: Reduce Quality of Cryopreservations for Underfunded Members**

There are some possibilities for cost savings in the up-front costs of cryonics, such as reducing or eliminating standby services, or omitting cryoprotective perfusion. However even if all up-front costs were eliminated, the largest cost for whole body patients would still remain. It is the required PCT allocation to fund long-term storage. Furthermore, some quality reductions, such as deliberate elimination of cryoprotective perfusion, would result in so much damage that prospects of revival appear greatly reduced, raising serious scientific and ethical questions.

### **Option 9: Encourage Members to Arrange Funding Above Minimums**

Alcor has attempted to do this, and has been somewhat successful in persuading neuropreservation members to fund above minimums. However whole body members have tended to fund closer to minimums, creating a large long-term problem. Alcor needs to do a better job at persuading members to plan funding consistent with their cryopreservation choices and life expectancy. The following option provides a means for doing so.

### **Option 10: Establish an Underfunding Reserve Account Funded by Underfunding Charges**

After extensive consideration and study, the Alcor board and management believes this is the best idea so far for coping with cryonics cost inflation. An Underfunding Reserve Account would be established. Whenever an underfunded cryopreservation was performed, the Underfunding Reserve would be drawn upon as necessary to pay the PCT, CMS fund, and Operations accounts the amounts they required according to current minimums.

The Underfunding Reserve Account would be funded by annual charges to members proportional to the extent of their underfunding. In the first year of implementation, the charge would be 0.33% of the member underfunding amount (e.g. \$165 for a member underfunded by \$50,000). The charge would escalate to 0.67% in the second year, and finally to 1% of the underfunding amount in the third year and thereafter. If by the third year no members changed their funding or cryopreservation method, charges collected from all underfunded members would generate \$320,000 per year. This would be a sufficient contribution to the Underfunding Reserve Account to cover the actuarial expectation of underfunded case expenses for the present time. In the longer term, it is hoped that this charge would be an incentive for members to increase their funding with inflation if they are able to do so, and for new members to plan funding according to life expectancy.

A Hardship Fund would be established and seeded by Alcor's general funds to help pay underfunding charges of long-time members who were not able to do so, and to the extent they were unable to eliminate their underfunding by other means (e.g., prepayments, trusts, bequests, conversion to neuropreservation). Alcor would solicit donations to this Hardship Fund, and we would add this fund as an option to which our members could allocate over-minimum funding. Our goal would be to grow this fund to sufficient size to assist all members facing true financial hardship.

An easy mechanism would be provided for whole body members who wished to convert to neuropreservation membership if they were unable to pay underfunding charges related to their whole body membership. If a member became seriously delinquent in paying underfunding charges, automatic conversion to neuropreservation membership might occur under Alcor's authority within the Cryopreservation Agreement.

Alcor management and board believe this proposal is a superior alternative to not cryopreserving long-time members who are underfunded. It begins to address a deep problem with cryonics finance that has been neglected for too long. The board expects to take action on the underfunding issue in early 2012. Comments on this proposal or the problem of underfunding generally are welcome on the [Alcor Member Forums](#).

## References

- 1) Stephen Bridge, Michael Darwin, "[The High Cost of Cryonics](#)," *Cryonics* Jan.-Feb. (1982).
- 2) Howard S. Katz, "[Funding Cryonic Suspension—A Critique](#)," *Cryonics* Aug. (1991) 13-16.
- 3) Ben Best, "[A Plea for Inflation-Proof Cryonics Financing](#)," *Cryonics* Oct. (1991) 14-17.
- 4) John Connole, "[Letter to the Editor](#)," *Cryonics* Oct. (1991) 3-5.
- 5) Carlos Mondragon, "[Suspension Funding and Inflation](#)," *Cryonics* Nov. (1991) 4.
- 6) Charles Platt, "[Money Matters in the Middle Phase](#)," *Cryonics* 4th Quarter (2009) 12-15.
- 7) Charles Platt, "[Cryoptimism, Part 1](#)," CryoNet message #32975 (2010).
- 8) Charles Platt, "[Cryoptimism, Part 2](#)," CryoNet message #32976 (2010).
- 9) Robert Freitas, Jr., "[Long-Term Financial Stability in Cryonics](#)," *Cryonics* 3rd Quarter (2010) 4.
- 10) Robert Freitas, Jr., "[Scenario Analysis using a Simple Econometric Model of Alcor Finances](#)," Alcor Website Library, October 15 (2010).
- 11) Ralph C. Merkle, "[Funding Your Cryopreservation](#)," *Cryonics* 2nd Quarter (2010) 3-6.



12) Mike Darwin, "[The Cost of Cryonics](#)," *Cryonics* Aug. (1990) 15-36.

## **Appendix 1: What are Alcor's Costs for a Cryonics Case?**

In 2011, Alcor's cryopreservation funding minimums are \$80,000 for neuropreservation and \$200,000 for whole body cryopreservation. These amounts are composed of:

### Neuropreservation

\$25,000 to the Comprehensive Member Standby (CMS) Fund

\$30,000 to Alcor Operations for cryoprotection and deep cooling

\$25,000 to the Patient Care Trust

### Whole Body Cryopreservation

\$30,000 to the Comprehensive Member Standby (CMS) Fund

\$60,000 to Alcor Operations for cryoprotection and deep cooling

\$110,000 to the Patient Care Trust

### **The CMS Fund**

The [Comprehensive Member Standby](#) Fund is a segregated account that Alcor maintains for the purpose of paying for everything Alcor does to respond to cryonics cases outside of the Alcor facility. It includes a readiness component, which pays staff salaries in proportion to the amount of time staff members spend on field work and field work readiness. It also pays the marginal costs of case field work, including transportation, lodging, consumables, and bills when contractors, such as Suspended Animation, Inc. (SA), are used for case field work. CMS is funded by an annual \$180 charge to Alcor members, and by \$25K and \$30K amounts drawn from case funding for neuropreservation and whole body cases respectively. The case funding contributions to CMS are considerably less than the actual costs of a full remote case response, with the shortfall made up by less expensive local cases and cases for which there is no advance notice before legal death.

CMS income and expenses are tracked separately from Alcor's general funds, allowing Alcor to keep close track of whether CMS charges are keeping up with the costs of cryonics case field work.

### **Alcor Operations**

Costs of in-facility work on cryonics cases, comprising cryoprotective perfusion, deep cooling, and placement in long-term care, are paid for from Alcor general funds. They are the only part of cryopreservation costs that presently don't have a separate account. Detailed costs for this part of cryonics include the cost of contract surgeons, consumables, ingredients for cryoprotective perfusate (which can reach \$20K for whole body cases), liquid nitrogen for deep cooling, and depreciation of all the necessary capital equipment. Staff costs also need to be paid.

Gains or losses in this part of cryonics procedures affect Alcor's general operating budget. In 2010 Alcor began charging a \$50K indirect costs charge to cryonics case funding to help balance the general operating budget. This amount is only drawn from case funding after the above-described allocations, including PCT amount, have been paid, and only if case funding is sufficient to pay it. Remaining cryopreservation funding, if any, is distributed according to Attachment 1 of the member's Cryopreservation Agreement.

### **The Patient Care Trust**

The [Patient Care Trust](#) (PCT) is a legally separate trust with its own Board of Directors that is charged with maintaining and disbursing funds to maintain long-term care of Alcor patients at cryogenic temperature. At the end of August 2011, the PCT held assets conservatively valued at \$7,000,000 and disbursed approximately \$170,000 a year to Alcor to pay expenses associated with the maintenance of 107 patients (71 neuro, 36 whole body). Those expenses were approximately composed of:

\$50,000 Liquid Nitrogen

\$50,000 Labor (Alcor staff cost billed to PCT)

\$35,000 Rent\*, Utilities, Insurance

\$30,000 Depreciation (dewars and infrastructure)

\$5,000 Miscellaneous

\*Although the PCT owns the company that owns Alcor's building, Alcor leases space from that company and is reimbursed by the PCT for the portion of the building it rents for patient care.

These expenses imply a marginal cost of at least \$10,000 per year for each new storage dewar brought into service, excluding labor. The dewars used by Alcor hold either four whole body patients plus five neuropatients, or 45 neuropatients. The annual marginal cost of maintaining a whole body patient is therefore minimally  $\$10,000 / 4.5 = \$2200$  per year in 2011, or \$220 per neuropatient.

Alcor attempts to set the PCT portion of cryopreservation minimums so that marginal costs of patient care can be met by only a 2% annual draw on principal\*. This is to ensure long-term real growth of principal to survive difficult economic times and eventually fund revival and

reintegration. This criterion minimally implies a required PCT principal of \$110,000 per whole body patient and \$11,000 per neuropatient. In 2011 the actual PCT allocations of the cryopreservation minimums of whole body patients and neuropatients were \$110,000 and \$25,000 respectively.

There is an item related to the PCT on Alcor's balance sheet called the Deferred Patient Care Reserve. It is computed as (number of neuropatients) \* (current neuropatient PCT allocation) + (number of whole body patients) \* (current whole body patient PCT allocation). It is intended to be an estimate of the PCT principal required to sustain Alcor's current patient population. It is recorded as a liability, recognizing that responsibility for providing patient care is an obligation. The remaining PCT equity, \$1.5 million in August, 2011, is theoretical excess funding that may be able to grow to fund future revival and reintegration (R&R).

\*The 2% annual draw criterion was first articulated in the seminal 1990 article, [The Cost of Cryonics](#). (The article actually imposed an additional safety factor of two, concluding that principal equal to 100 times the annual cost of care should be required.) After abandoning explicit draw criteria for many years, Alcor is attempting to return to a 2% criterion.

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## **Appendix 2: Message from Alcor Board Member Ralph Merkle, PhD, on Alcor Financial Planning**

### **Introduction**

Traditionally, Alcor has led a hand-to-mouth existence, scraping by financially by taking in bequests and donations and barely covering its costs. Underpaying its staff and with little or no reserve for emergencies, it has been unable to sustain a coherent research program except for the periods when one or two dedicated members held a research program together by making great personal sacrifices.

The only exception to this bleak picture was the Patient Care Trust Fund, which was the one area where all agreed that we could not adopt a short-term “if we've got it, spend it” attitude. As a consequence, the PCT is in financially good condition – though even here we'd like to do better.

Some Alcor members have wondered why rich Alcor members have not donated more money to Alcor. The major reason is that rich Alcor members are rich because they know how to manage money, and they know that Alcor traditionally has managed money poorly. Why give any significant amount of money to an organization that has no fiscal discipline? It will just spend it, and put itself right back into the same financial hole it's already in.

As a case in point, consider Alcor's efforts over the year to create an “endowment fund” to stabilize its operating budget. These efforts have always ended with Alcor spending the money

on various useful activities. These range from research projects to subsidizing our existing members – raising dues and minimums is a painful thing to do, and the Board is always reluctant to do this even when the financial data is clear. While each such project is individually worthy and has merit, collectively the result has been to thwart the effort to create a lasting endowment and leave Alcor in a financially weak position.

Many have adopted the view that “Alcor has always managed to scrape by, and it always will. Let’s spend any funds that aren’t needed to cover our immediate expenses and trust to Fortune to provide the funds we need in the future.” The best that can be said about this approach is that it has not yet destroyed Alcor as an ongoing and vital organization. The cost has been the constant risk that Alcor would have to slash staffing to the bone, a constant sense of uncertainty about the future, and fluctuating funding that has exacerbated a stop-and-go approach to projects that has cost us good people and left us building up and then abandoning costly infrastructure.

### **Successful Endowment Funds**

Consider that some of the major institutions in the world, such as Harvard, Stanford, the Howard Hughes Medical Institute and others, have major endowments. You might think that these institutions, because they have been so successful, have been able to create large endowments.

Actually, it’s the reverse. They are great because they have great endowments. The miracle of compound interest means that a successful endowment is an exponentially increasing resource over time. An endowment with a positive rate of return, sustained long enough, will eventually generate steady revenue larger than any desired fixed income stream.

Alcor currently has \$3.5M in its nascent Endowment, and a firm resolve (for once) to spend only 2% per annum of those funds. This 2% per annum was not arrived at lightly – it was the result of extensive discussion by the Board and the best financial advisors available to the cryonics community.

If we draw 2% per annum from the Endowment Fund, it will grow robustly and exponentially. Even without future donations, in two decades it’s likely to exceed \$9M<sup>1</sup>. And once our wealthy members realize that we have adopted a fiscally sound set of policies, they are more likely to donate money to the Endowment Fund to insure the future stability and growth of Alcor. An Alcor on which their own lives will also depend.

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<sup>1</sup> This is based on the assumption of a 7% annual return. The 2% draw reduces this 7% to 5%, giving  $1.05^{20}$  or a factor of 2.65 growth in 20 years. This results in  $\$3.5M \times 2.65 = \$9.3M$ , which is “likely to exceed \$9M”. Long term inflation adjusted stock returns vary somewhat, but from 1950-2009 the S&P 500 had an inflation adjusted return of 7% (<http://www.simplestockinvesting.com/SP500-historical-real-total-returns.htm>). Bogle, in “Bogle on Mutual Funds” gives a real rate of return of 6.5% from common stocks from 1871 to 1992.

Now consider what happens if we draw just a little bit more: 4% per annum. At that rate, the Endowment Fund might not grow at all<sup>2</sup>. It might last for decades, but it might shrink instead of grow. It certainly wouldn't enjoy robust growth. It might eventually disappear.

The long term impact of compound interest cannot be overstated. As we consider longer periods of time, the impact of compound growth rates grows exponentially – it compounds. At a 7% real rate of return with a 2% draw, that \$3.5M in the Endowment Fund we have today becomes \$9M in 20 years, \$24M in 40 years, \$64M in 60 years, and that assumes no one else adds a penny to it. If we add to that initial fund, and encourage its growth, it will be even larger. And eventually it will be large enough to fund whatever is needed to make cryonics work – for all of us.

But we have to have the discipline to add to it, to keep it safe, and to let it grow.

### **The grasshopper and the ant**

The first response of many members when they heard we had \$3.5M in our Endowment Fund was “Whoopie! Let the good times roll! All of Alcor's financial problems are solved!”

Unfortunately, this just isn't true. At 2% per annum, that \$3.5M adds only \$70K to Alcor's annual budget. It's a stable contribution of \$70K that we can depend on being there every year, and that stable \$70K per year is going to grow over time as the Endowment Fund grows, but for this year it adds only \$70K to our annual budget. To give you a feel for the magnitudes involved, our 2010 budget was almost \$1.5M, so \$70K is only about 5% of our budget. Definitely helpful, but a far cry from solving all our problems.

If we want to provide long term stability for Alcor, and don't just want to spend every cent of every donation today, then even large donations don't let us go out and spend money on all the worthy projects and ideas that we all have in mind. We still have to watch our dollars carefully.

But watching our dollars is worth it because a real endowment makes a huge difference to our future, and the difference is this: by adding donations to the Endowment Fund instead of spending them immediately we (a) have a stable source of future funding that we can depend on, instead of a fluctuating source of funding that might vanish in bad years and (b) that stable source of funding will grow exponentially. Over time, that exponential growth will give us the immense resources we need to address the problems that we have to address to make cryonics work.

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<sup>2</sup>If you draw a higher percentage of your investment annually for your own use (4%), and continue to invest in stocks to get their higher annual returns, then you'll continue to suffer from the higher risks associated with stocks: you'll have bad years, and because of your higher draw you won't be able to recover as easily. Several bad years in a row and you'll have little money left. But to reduce your risk, you have to avoid stocks, which are risky, and invest in low-risk low-yield securities, which reduce your overall return. If your real rate of return ever becomes negative, you will slowly lose everything. Risk and low real returns are synonymous.

The damage caused by unstable funding is immense. Assembling the right team for any task usually takes years – and that team can be destroyed with one bad year. Key people leave and can't be re-hired. The best people in any field don't want to work for an organization that's scraping by from year to year, so we won't be able to replace good people when they leave. In fact, we'll have a hard time hiring the right people in the first place. And physical infrastructure can be expensive and hard to maintain. Without proper funding you can't buy it in the first place, and without proper funding for maintenance, it will decay and become unusable.

### **Conclusion: the benefits of a financially healthy Alcor**

We have a dream: an Alcor that is financially healthy. An Alcor that has a large and growing endowment. An Alcor that has the resources to face the inevitable emergencies that will arise which might threaten our patients. An Alcor which has the stability and the resources to attract and retain the best and the brightest in all the areas and all the fields essential to our future: legal, financial, medical, public relations, managerial, nanotechnology, nanomedical, business, architecture, computer science, and anything else we might need. An Alcor which can give our members the best cryopreservation possible. An Alcor which can provide the most secure long term storage facilities. An Alcor which is respected by the medical community, and which can persuade that medical community to treat our members wishes with the respect we deserve and that we must have if we are to have the best chance at survival. An Alcor which can educate the world in general and the medical, legal, and legislative professionals in particular about cryonics: what it is, how it can save lives, and how it can benefit humanity.

Don't forget the other major task ahead of us: we need to revive our patients. Which means we need to make sure the technology to revive our patients is developed and used. Much as we might wish others will do that for us, it's more likely we'll have to do a lot of this ourselves. Again, the exponentially growing resources that compound interest provides will be essential.

To do all these things, we need a healthy Endowment Fund. To do all these things, we can't lose money in operations and make up for that loss by throwing all our donations and bequests into the breach and never getting ahead. To do all these things, we need to base Alcor on sound fiscal policies. To do all these things, we need to stabilize our finances so they don't fluctuate wildly from year to year.

To do all these things, we need to create the kind of Alcor that gives all of us the best chance of survival.