

ALCOR LIFE EXTENSION FOUNDATION

A Non-Profit Organization

# CRYONICS

JUNE 2015 · VOLUME 36:6

## CONCEPTS OF IDENTITY AND THE GROWTH OF CRYONICS

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## TWO-YEAR OLD THAI GIRL BECOMES ALCOR'S 134TH PATIENT

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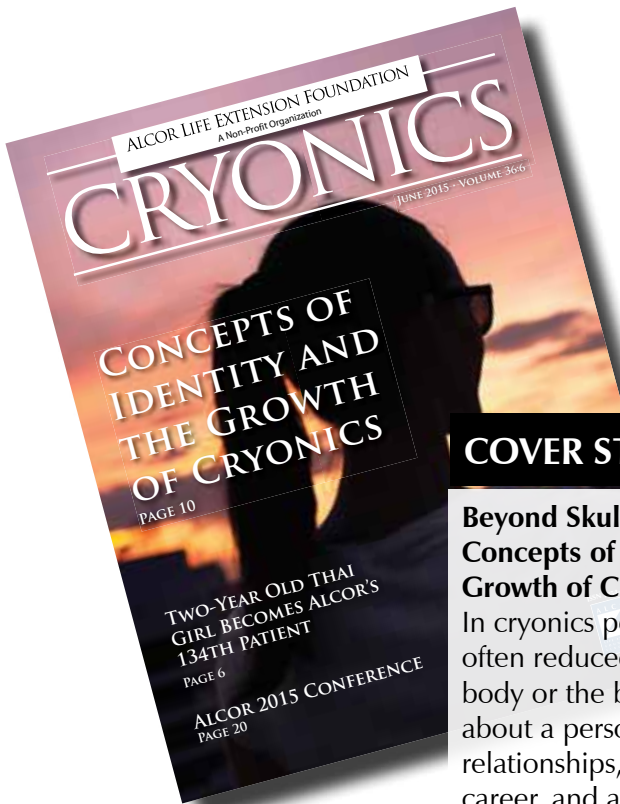
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# CRYONICS



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### Beyond Skull and Skin: Concepts of Identity and the Growth of Cryonics

In cryonics personal identity is often reduced to the person's body or the brain. But what about a person's social relationships, life achievements, career, and assets? Should we embrace a richer concept of identity if we want cryonics to appeal to more people? If we aim to preserve this "extended self," what would need to change about the way we communicate about cryonics and the services we offer?

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Saul Kent  
Ralph C. Merkle, Ph.D.  
R. Michael Perry, Ph.D.

**Editor**

Aschwin de Wolf

**Contributing Writers**

Aschwin de Wolf  
Aaron Drake  
Max More  
R. Michael Perry, Ph.D.

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*Cryonics* Magazine  
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Scottsdale, Arizona 85260  
Phone: 480.905.1906  
Toll free: 877.462.5267  
Fax: 480.922.9027

Letters to the Editor welcome:  
[aschwin@alcor.org](mailto:aschwin@alcor.org)

Advertising inquiries:  
480.905.1906 x113  
[advertise@alcor.org](mailto:advertise@alcor.org)  
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Alcor provides a wide array of services for you the member, and the general public. We inform and educate, we protect and preserve, and we strive to remain at the forefront of cryonics technology.

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## The James Bedford Society



Gifts have played a fundamental role in the cryonics movement since its earliest days. Dr. James Bedford, a man whose extraordinary vision led him to become the first person to be cryopreserved, and the first to make a bequest to a cryonics organization, exemplified the determination of the early pioneers of cryonics. We invite you to follow in his footsteps, and join the James Bedford Society.

The James Bedford Society recognizes those who make a bequest of any size to the Alcor Life Extension Foundation. If you have already provided a gift for Alcor in your estate, please send a copy of your relevant documents to Alcor's Finance Director, Bonnie Magee.

If you'd like to learn more about setting up a bequest, send an email to [bonnie@alcor.org](mailto:bonnie@alcor.org) or call 480-905-1906 x114 to discuss your gift. ■



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# QUOD INCEPIMUS CONFICIEMUS

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Photo: Cryo-Care Equipment Corporation at 2340 E. Washington St., Phoenix, AZ.  
Dr. Bedford's "home" in 1970 or 1971.



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## CHANGING THE GOALPOSTS By Aschwin de Wolf

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Being a cryonicist can sometimes be exasperating. We like to think that making (technological) progress in our field will persuade more people to make cryonics arrangements. Are you concerned about the long-term stability of cryonics organizations? We set up a patient care trust fund designed to maintain our patients in perpetuity. Are you concerned about ice formation? We introduce a new technology that eliminates freezing and turns tissue into a glass. Are you concerned about fracturing? We can store a patient at intermediate temperatures. Are you concerned about the use of volunteers? We contract with a company that uses professional surgeons and perfusionists. Are you concerned about long transport times? We develop protocols that allow us to do cryoprotectant perfusion in the field. Are you concerned about a cryonics organization's operations being dependent on bequests and donations from wealthy donors? We insist that the operating expenses of the organization should be covered by membership dues.

One would think that each time Alcor introduces new technologies and policies skeptics will recalibrate and a larger number of them start making cryonics arrangements. For example, ice formation is generally perceived to produce a lot of damage to tissues. As a consequence, the transition from conventional cryopreservation with glycerol

to vitrification should have produced a sharp increase in membership. It did not. Strangely enough, the publication of Eric Drexler's *Engines of Creation* produced a larger increase in membership than the introduction of ice free cryopreservation. How can this be reconciled with the emphasis many of our critics place on empirical evidence? After all, Drexler's book was a popular but theoretical argument about the feasibility and desirability of molecular nanotechnology and the introduction of vitrification was an actual, real-world, upgrade of cryonics procedures.

This failure of technological progress to translate into an increased acceptance of cryonics is often observed within the same person. First it is ice formation that is posited to be the obstacle to making cryonics arrangements. Then, when vitrification is introduced, the objection changes from ice formation to fracturing. When it is shown that storing at intermediate temperatures can mitigate fracturing the person suddenly is concerned about cryoprotective toxicity. And the list goes on and on. A clearer example of someone changing the goalposts cannot be found. The question is "why." I think a close examination of these scientific and technological issues will not answer the question.

If something has become increasingly clear in informal conversations about

cryonics it is that these kinds of objections are often superficial and follow-up conversations usually reveal more personal, psychological reservations. If we look for the common denominator of these objections we find that to many people cryonics does not offer the prospect of the *continuation* of life but a disruption and threat to personal identity. Cryonics may present the prospect of survival but the fear is that outside of our brain and bodies not much else will survive (family members, friends, careers, assets, money etc.).

Is the weak correlation between technological progress and the growth of cryonics a reason for pessimism? Not necessarily. If we really want cryonics to take off and grow we should reframe our presentation of cryonics and present it as an attractive means to *continue* one's life, expand one's social connections and relationships, grow one's assets, and improve one's body and well-being. If we succeed in delivering a friendlier presentation of cryonics, more people will make cryonics arrangements, which will lower the threshold for other people to make cryonics arrangements, which will further arouse interest in cryonics, et cetera. And ironically, more money and resources will be available for research to bring us closer to real human suspended animation. ■



## TWO-YEAR OLD THAI GIRL BECOMES ALCOR'S 134TH PATIENT

By Max More and Aaron Drake

**M**atheryn Naovaratpong, Alcor member A-2789, was pronounced legally dead on January 8, 2015, in Bangkok, Thailand (the same date in both Thailand's and Arizona's time zone). A neurocryopreservation member, she then became Alcor's 134th patient. She is also Alcor's youngest patient (and, it appears, the youngest cryopatient ever), being less than three years old at the time of her preservation.

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*"It was the first ever field neuro cryoprotection in Asia..."*

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Matheryn was diagnosed with a rare form of pediatric brain cancer (ependymoblastoma). Her parents, both with doctorates in engineering, went to great lengths to find an effective treatment, trying aggressive chemotherapy, high dose radiation therapy, and numerous neurosurgeries, but Matheryn's health was failing. When it became clear that she had only months or weeks left, given today's

medical limitations, the parents completed her cryonics arrangements with Alcor and worked with staff, primarily Medical Response Director Aaron Drake. Distance barriers were overcome and she received a high-quality cryopreservation, including cryoprotection of her brain.

The family had originally planned to relocate their daughter to the US as her disease process advanced. Significant planning was made toward that end with a California-based specialty hospital. This included finding a suitable hospital or a hospice certified for pediatric cases. But, with only days remaining before the girl was to be flown to the US, her respiratory function began to fail and she was placed on a ventilator, eliminating any possibility of commercial air travel. Prior planning and contacts in Thailand had put arrangements in place in that country for a different Alcor client (who helped generously and effectively in this case) and his family. So the confidence level was high that the procedure could still be successfully performed in Thailand.

The question then was: who should be on the response team for a child who

had 12 previous neuro surgeries and potentially very challenging vasculature? It was decided that Dr. José Kanshepolsky, a neurosurgeon who has often worked on Alcor cases in the past, would be an excellent candidate. Dr. Kanshepolsky agreed to travel with Aaron to perform the standby and a field neuro-cryoprotection, following the young girl's pronouncement. His expertise proved invaluable. After examining the girl at the hospital, he made several observations and recommendations to the family that informed the decision to undertake cryoprotective perfusion of Matheryn's brain in Thailand while not separating her brain (which was to be preserved) from the rest of her body. This worked out to be an effective way to move through the repatriation process and back to the US.

Two days were needed for travel to Thailand and two days were spent on standby. On the second day, Matheryn was pronounced by a physician who was present at the bedside when clinical death occurred. A surgery suite had been prepared in an adjoining room and access to the patient for stabilization and

perfusion was immediate. Alcor's field cryoprotection system was tested in this very remote field and proved effective. By existing benchmarks, the procedure went very smoothly and without incident. The entire patient was placed in a specially prepared dry ice shipping container and cooldown to dry ice temperature (-79°C/-109°F) began on-site.

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*“She is also Alcor’s youngest patient (and, it appears, the youngest cryopatient ever), being less than three years old at the time of her preservation.”*

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After the US Embassy in Thailand approved the shipment, the container was further topped with dry ice and shipped by airline to LAX for customs approval. It was easier and quicker for Alcor to work directly with our mortuary agent in Buena Park, California, and take possession of the shipment directly in Los Angeles, rather than secure another flight to Phoenix and deal with two additional sets of cargo offices. Steve Graber and Aaron Drake drove to California, replenished the dry ice which had held up well on its journey from Thailand, obtained a transit permit with the assistance of the mortuary, and drove with the container back to Arizona. The neuro separation was performed at Alcor after arrival and Matheryn is now Alcor's 134th patient.

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*“Distance barriers were overcome and she received a high-quality cryopreservation, including cryoprotection of her brain.”*

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This case was remarkable in several ways, including the determination and resourcefulness of Matheryn's parents in working with Alcor to make this very long-distance case both possible and successful. It was the first ever field neuro cryoprotection in Asia and Matheryn is



Matheryn Noavaratpong  
Photo Credit: [www.asianscientist.com](http://www.asianscientist.com)



Matheryn and her 14-year-old brother, Matrix.  
Photo Credit: [www.straitstimes.com](http://www.straitstimes.com)

our youngest patient. Matheryn's family, extending well beyond her mother and father, were supportive and have said they plan to also make cryopreservation arrangements with Alcor. No doubt being

surrounded by the familiar faces of loving relatives will make the resumption of her life—as we hope and expect to happen—easier and more joyful. ■



# REDUCE YOUR ALCOR DUES WITH THE CMS WAIVER

Alcor members pay general dues to cover Alcor's operating expenses and also make annual contributions to the Comprehensive Member Standby fund pool to cover the costs of readiness and standby. Benefits of Comprehensive Member Standby include no out-of-pocket expense for standby services at the time of need, and up to \$10,000 for relocation assistance to the Scottsdale, Arizona area.

Instead of paying \$180 per year in CMS dues, Alcor also provides members the option to cover all CMS-associated costs through life insurance or pre-payment. Members who provide an additional \$20,000 in minimum funding will no longer have to pay the \$180 CMS (Comprehensive Member Standby fund) fee. This increase in minimums is permanent (for example, if in the future Alcor were to raise the cost of a neurocryopreservation to \$90,000, the new minimum for

neurocryopreservation members under this election would be \$110,000). Once this election is made, the member cannot change back to the original minimums in the future.

To have the CMS fee waived, these are the minimums:

- **\$220,000 Whole Body Cryopreservation** (\$115,000 to the Patient Care Trust, \$60,000 for cryopreservation, \$45,000 to the CMS Fund).
- **\$100,000 Neurocryopreservation** (\$25,000 to the Patient Care Trust, \$30,000 for cryopreservation, \$45,000 to the CMS Fund).

If you have adequate funding and would like to take advantage of the CMS waiver, contact **Diane Cremeens** at [diane@alcor.org](mailto:diane@alcor.org).

## Become An Alcor Associate Member!

Supporters of Alcor who are not yet ready to make cryopreservation arrangements can become an Associate Member for \$5/month (or \$15/quarter or \$60 annually). Associate Members are members of the Alcor Life Extension Foundation who have not made cryonics arrangements but financially support the organization. Associate Members will receive:

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To become an Associate Member send a check or money order (\$5/month or \$15/quarter or \$60 annually) to Alcor Life Extension Foundation, 7895 E. Acoma Dr., Suite 110, Scottsdale, Arizona 85260, or call Marji Klima at (480) 905-1906 ext. 101 with your credit card information.

Or you can pay online via PayPal using the following link: <http://www.alcor.org/BecomeMember/associate.html> (quarterly option is not available this way).

Associate Members can improve their chances of being cryopreserved in an emergency if they complete and provide us with a Declaration of Intent to be Cryopreserved (<http://www.alcor.org/Library/html/declarationofintent.html>). Financial provisions would still have to be made by you or someone acting for you, but the combination of Associate Membership and Declaration of Intent meets the informed consent requirement and makes it much more likely that we could move ahead in a critical situation.





# DR. LAURENCE PILGERAM BECOMES ALCOR'S 135TH PATIENT

Laurence Pilgeram, Alcor member A-1245, was pronounced clinically dead on Friday, April 10, 2015, in Santa Barbara, California at the age of 90. Alcor was notified on Monday April 13 and Dr. Pilgeram, a neurocryopreservation member, became Alcor's 135th patient on April 15, 2015.

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*“Dr. Laurence Pilgeram, a cryopreservation member of Alcor since 1991, was involved in cryonics early on.”*

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Dr. Laurence Pilgeram, a cryopreservation member of Alcor since 1991, was involved in cryonics early on. He gave a talk at the 1971 Cryonics Conference in San Francisco, California, on “Abnormal in-Vitro Oxidation and Lypogenesis Induced by Plasma in Patients with Thrombosis.” Dr. Pilgeram received a Ph.D. in Biochemistry at the University of California, Berkeley in 1953. In 1954-55 he served as an Instructor in Physiology at the University of Illinois College of Medicine in Chicago. He then accepted an offer to develop and chair an Arteriosclerosis Research Laboratory at the University of Minnesota School of Medicine. He later moved to Santa Barbara, California, then to Texas, joining the Baylor College of Medicine in Houston, to develop and head the Coagulation Laboratory there, before finally returning to the Santa Barbara area.

On April 10, Dr. Pilgeram collapsed outside of his home of an apparent sudden cardiac arrest. Despite medical and police personnel aware of his Alcor bracelet, he was taken to the medical examiner's office in Santa Barbara, as they did not understand Alcor's process and assumed that the circumstances surrounding his death would pre-empt any possible donation directives. Since this all transpired late on a Friday evening, Alcor was not notified of the incident until the following Monday morning.

Fortunately, no autopsy was performed which at least eliminated any invasive damage but the lengthy delay led to a straight freeze as the only feasible option. The medical examiner released the body to the mortuary that Alcor uses in Buena Park, California, and Dr. Pilgeram was immediately covered with dry ice at our request. Aaron Drake and Steve Graber traveled to California to perform a neuro separation in the mortuary's prep room and then returned to Arizona for continued cooldown which began on April 15. ■



*Dr. Pilgeram speaks at Cryonics Conference in San Francisco, CA Jun. 19, 1971. Source: The Outlook Jul. 1971, 3; photo is retouching from image on cover.*

#### REFERENCE:

1. [http://news.bbc.co.uk/2/hi/uk\\_news/7304004.stm](http://news.bbc.co.uk/2/hi/uk_news/7304004.stm); <http://news.bbc.co.uk/2/hi/entertainment/7309598.stm>, accessed 23 May 2015.



# BEYOND SKULL AND SKIN:

## Concepts of Identity and the Growth of Cryonics

By Aschwin de Wolf

### INTRODUCTION

“Where does the mind stop and the rest of the world begin?” So begins a 1998 paper by Andy Clark and David J. Chalmers called “The Extended Mind.” In this much discussed article they defend the position that cognition, or the mind, does extend beyond the skull and can include objects or operations performed outside of the body, such as the use of calculators or notebooks. There are a lot of complicated and intricate issues involved here but I want to draw attention to the following passage at the end of their paper:

*What, finally, of the self? Does the extended mind imply an extended self? It seems so. Most of us already accept that the self outstrips the boundaries of consciousness; my dispositional beliefs, for example, constitute in some deep sense part of who I am. If so, then these boundaries may also fall beyond the skin. The information in Otto’s notebook, for example, [Otto has Alzheimer’s disease] is a central part of his identity as a cognitive agent. What this comes to is that Otto himself is best regarded as an extended system, a coupling of biological organism and external resources. To consistently resist this conclusion, we would have to shrink the self into a mere bundle of occurrent states, severely threatening its deep psychological continuity. Far better to take the broader view, and see agents themselves as spread into this world.*

If we consider the idea that the self extends beyond the skull and skin, how does this affect our understanding of identity? Clearly, the self and identity are closely related and I suspect that many people would agree that a rich understanding of identity is not exhausted by considering a person’s brain and body. In this article it is not my intention to wade too deeply into semantic issues, or attempt to resolve philosophical debates, but to argue the point that the public perception of cryonics would benefit from embracing a richer concept of identity that includes a person’s social environment, life achievements, possessions, and other assets.

### REDUCTIONISM IN CRYONICS

One might argue that cryonics is itself a form of reductionism because it approaches the brain solely as a biochemical entity. This can be admitted, but in this sense it is no more reductionist than the premise of mainstream medicine and neuroscience. In fact, in a properly conceptualized vision of cryonics one can remain agnostic about debates concerning “materialism” or “the soul.” What matters in cryonics (and in medicine in general) is whether approaching the brain from a biological perspective can produce meaningful treatments for medical conditions. I think it is rather obvious that the answer to this question is “yes.”

There is another sort of reductionism associated with cryonics that is more controversial, or perhaps I should say, less appealing to many people. The idea is that

preservation of the body is identical to the preservation of a person's identity. If we can cryopreserve the person's body in a manner that permits future resuscitation of the person, then his identity has been preserved. In cryonics this idea has often been the starting point for further reductionism. The most notable example is the idea of neuropreservation in which only the brain (usually protected by the head) is deemed to be necessary for the preservation of identity. Neuropreservation raises a lot of complex issues which I will not address here and have covered in another publication<sup>1</sup>. The most important point I want to make here is that our concept of the self or personal identity is not exhausted by our brains and that our existing bodies mean something to us, even if faced with the argument that an "identical" or "improved" body can be made for our cryopreserved brain in the future.

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*"If we consider the idea that the self extends beyond the skull and skin, how does this affect our understanding of identity?"*

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This kind of reductionism does not stop here. I have even seen arguments that what "really matters" is preserving the hippocampus, presumably being the seat of our memories. For most people, however, our life history (which is closely associated with our identity) cannot be reduced to memories and cognitive operations. The brain is about a lot of other things, too.

Reductionism can also express itself through a position that only "structural" preservation matters, usually confined to the "structural" preservation of the brain. If this argument is made in defense of the cryopreservation of non-ideal cases, under the assumption that as long as the original structure can be inferred from the damaged

structure, it is a commendable position. However, how much brain structure must be preserved to prevent information-theoretic death is not something that can be known with certainty and the most conservative approach is to aim for making our procedures reversible by contemporary medical criteria. We do not yet have a good enough understanding of the neuroanatomical basis of personhood to make such a sharp departure from mainstream medical validation.

Cryonicists who believe in "substrate independent minds" (i.e. mind uploading) would even argue that repair and restoration of the original structure is not necessary and perhaps even inefficient. We can "just" do a molecular scan of the (damaged) structure of the cryopreserved brain, reconstruct the original structure "in silico," and revive the person in a computer. In this vision, identity is not just reduced to brain but to *information about the brain*.

We now have identified various concepts of identity. At one extreme we have a very rich concept that not only includes a person's brain and body but also his social environment, assets, and life achievements. At the other end of the spectrum is the idea that a person's identity can be captured by a scan of their brain (and perhaps even just the hippocampus). In the remainder of this article I will defend the position that if we want cryonics to appeal to a wider audience we should embrace a much richer concept of identity.

## THE FAILURE OF THE CRYONICS MOVEMENT

Since the 1980s cryonics organizations have not failed in keeping their patients in cryopreservation. In that sense, cryonics has made impressive progress compared to the days when patients were often moved from one location to another because of insecure funding, sometimes culminating in having to let them thaw. Where the cryonics movement has not been particularly successful is in persuading the general public, or at least a substantial number of people, to make cryonics arrangements. This lack of enthusiasm for cryonics has been discussed intensely in the cryonics community and several reasons

have been put forward: scientific credibility, affordability, transparency of cryonics organizations, ignorance, irrationality, religion, a pro-mortalist culture, or fears of the future. In my personal experience, the two major reasons for not choosing cryonics are a lack of confidence in its scientific feasibility, and a fear of future alienation.

Let me be clear that I think it is extremely important to demonstrate the scientific feasibility of cryonics. Even if it doesn't make cryonics a whole lot more popular, improving our procedures and developing credible resuscitation technologies, is of great importance to the people who *have* chosen cryonics. I do not think, however, that demonstrating the scientific feasibility of cryonics (i.e. human suspended animation) will produce a substantial attitude change towards cryonics.

First of all, I think it can be quite persuasively argued that the scientific case for cryonics is already quite strong. Ideally, we can cool down the patient to 0°C without compromising viability. The newer generation of vitrification agents can eliminate ice formation in the brain and preserve its fine ultrastructure. The ongoing trends towards miniaturization in manufacturing (such as 3D printing) and biology eventually will give rise to molecular repair technologies that can reverse aging and repair any damage associated with today's cryonics procedures. One would believe that these developments are at least plausible to hundreds of thousands of people, if not millions. Instead, the number of people who have made cryonics arrangements does not exceed 2,000 (as of writing).

There is another way of looking at this. If insufficient scientific credibility is the reason for the lack of enthusiasm for cryonics how can we explain that millions of people spend hundreds of thousands of dollars on unproven cures when diagnosed with a terminal condition? How can we explain the much greater popularity of astrology and all kinds of "esoteric" healing? A stunning number of people in the United States believe in the existence of ghosts (according to one poll, 45%). Are we really supposed to think that the

<sup>1</sup> Michael B. O'Neal, Ph.D. and Aschwin de Wolf - The Case for Whole Body Cryopreservation. June 2014, <http://www.alcor.org/Library/html/CaseForWholeBody.html>

scientific arguments favoring the claims of astrology or the existence of ghosts are stronger than those favoring cryonics? The argument that scientific credibility is holding back cryonics cannot withstand close scrutiny and fails to take into account what moves most people to endorse an idea.

For example, the famous science fiction writer and science popularizer, Arthur C. Clarke, was no stranger to cryonics. He even assisted Alcor during its legal battles in the 1980s. As he states in a supportive letter, “Although no one can quantify the probability of cryonics working, I estimate it is at least 90%—and certainly nobody can say it is zero.” For a long time, Alcor’s *Cryonics* magazine had one subscriber in Sri Lanka, presumably Clarke who lived there. But even Clark had no personal interest in making arrangements. (He died in 2008, and was buried.) Clark is no exceptional case. There are a lot of people who believe cryonics is plausible. What concerns them is not that cryonics may not work but that it *will* work, thrusting them into a distant, unknown future with obsolete skills and no money, friends or family. Most people do not associate cryonics with *continuing* their lives but with losing everything they care for as the price of admittance to some dystopian neverland—not a very appealing prospect. I do not know if we can completely neutralize those fears, or even make cryonics at all appealing to the great majority. But I do think some progress can be made if we embrace a richer concept of identity and let it shape our communication about cryonics and the services we offer.

### **PRESERVING THE EXTENDED SELF**

I will refer to this richer concept of identity as the “extended self.” It does not just refer to the brain or body of the patient but also to his friends and family, his career and achievements in life, his assets and possessions. The concept of an “extended self” is not just a theoretical construct but has already been used to great benefit in the study of marketing and consumer behavior.

If the aim of a cryonics organization is to preserve the extended self, what changes would need to be made? In the most general sense, it would require that

we listen carefully to people about what makes them uncomfortable about being cryopreserved. We do not need to start from scratch here. We know what the predominant concerns are. I think that the common denominator that runs through most concerns is that people want their post-revival life to be a continuation of their existing life. There is one notable exception and that is people would want to be cured of the medical condition that caused them to be cryopreserved. In most cases this will require not just curing this disease but also reversing aging. It is important, however, to make it clear that these post-resuscitation decisions can and should be made by the person in question. This is why it is important to present a wide variety of visions of the future that will appeal to a wide range of people.

One unappreciated point about cryonics is that the delay between pronouncement of legal death and resuscitation only exists for people other than the patient. From the subjective experience of the patient resuscitation will be instantaneous. So I suspect that many of us would like a home to return to and continue our life. Unless we live in a post-scarcity economy where money has lost its utility it would also be helpful if we can continue to afford living in our homes and make purchases. Then there are also our personal belongings. If we are able to return to our homes a lot of those should be available once again as well. In short, “taking it with you” is not just a matter of setting up a personal trust but should extend to a person’s money, property, and possessions.

Of course, we cannot expect society to remain static when we are in cryopreservation and the organizations or companies entrusted with these responsibilities will need to be authorized to adapt to these changes. Does a house need to be renovated? What kind of upgrades need to be installed to keep up with technological changes in residences? Should one’s money (or a portion thereof) be exchanged to new digital currencies? Which personal belongings need to be replaced with newer items and which should be retained in their original state for personal or sentimental reasons? We

cannot consult the patient in cryostasis and will need to be guided by common sense, written and verbal instructions, and practical considerations. I suspect, however, that most people would agree that an effort to maintain and upgrade our assets and possessions is much preferred to not having any at all.

When it comes to our social connections

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*“The argument that scientific credibility is holding back cryonics cannot withstand close scrutiny and fails to take into account what moves most people to endorse an idea.”*

---

things are both easier and more difficult. Unlike managing a residence or personal belongings we would not have to make decisions about what to keep and not to keep. We would like to be reunited with our loved ones, family, and friends. Would it not be a lot easier to adapt to a new world if the people who were closest to you before you got seriously ill will be there, too? The biggest challenge here is to present a vision of cryonics where such a scenario is the logical and moral choice. Where making cryonics arrangements is the expression of social connectedness and family values, instead of being perceived as going it alone. This will not be a trivial task but I do not think we can claim, today, that we have put a lot of effort into this. I also suspect that cryonics organizations that make an effort to keep people who have been cryopreserved visible and part of our memories will have an easier time to convey the social nature of cryonics.

### **REINTEGRATION**

Will my skills, qualifications, degrees, and career achievements be completely irrelevant in the future? That is a frequently expressed and justified concern about cryonics. I have decided to treat this topic in this section about reintegration because I think it would not be plausible to claim

that a cryonics organization (or associated organization) can successfully claim to resolve this completely.

The first point I want to make is that for many people who are revived in the future returning to their prior job may not be the most urgent matter provided their assets have been well preserved. In fact, even assuming a moderate growth rate, a patient in cryopreservation has a reasonable chance to come out well because no withdrawals are made for daily living expenses (aside from a modest asset management fee). Considering the fact that most people are cryopreserved at an old age, many of us will have accumulated some assets that can be preserved and invested during cryostasis.

Not everyone will be completely satisfied with this answer, or optimistic about their financial status in the future, but I think it is not realistic either to ignore this point. As far as the question of obsolete skills is concerned, I suspect we will see a lot of variability here. People with skill sets that are known to change in the future (for example, maintenance of landline telephones) may be faced with greater challenges than people who work in “timeless” occupations such as artists who use traditional means of expression (painting) or wine makers. It will be fair to say, however, that the vast majority of people who have been cryopreserved for a long time (more than 100 years) will need to adapt to changes in occupations.

If a person comes out of cryostasis moderately secure, I do not think this constitutes a formidable challenge. The prediction that technologies will accelerate in the future does not necessarily mean that it will become harder to adapt. Even for people who are not cryopreserved during this period a greater pace of technological change will produce a corresponding demand for means to adapt to these changes. I suspect that a lot of these changes can be broken down into several distinct components and some of them can be addressed when the person is in cryostasis. For example, if society changes from email to a different kind of online communication we would expect that a cryonics organization (or whoever administers and maintains the patient’s

communications) would make sure that the patient will be able to access his correspondence in a contemporary format. One can think of things that can be done during a person’s absence that will allow her to adapt more quickly and successfully. Reintegration does not start after resuscitation but should be an ongoing concern when the patient is cryopreserved.

The aim of a credible cryonics organization should not only be to cryopreserve the patient but to assist in re-integration into society, too. It stands to reason that when a cryonics organization is reasonably confident that resuscitation is imminent, increasing thoughts will be given to the reintegration of their patients. Not all cryonics organizations may have such a strong emphasis (or set aside money for this), though, but confidence in an organization’s motivation and ability to do so could become an important criterion in choosing cryonics organizations. It is also likely that future charitable and for-profit organizations will focus their attention on reintegration of cryonics patients.

In closing, there is another aspect of

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*“Most people do not associate cryonics with continuing their lives but with losing everything they care for as the price of admittance to some dystopian neverland—not a very appealing prospect.”*

---

reintegration that needs to be pointed out. People often tend to think of a revived cryonics patient as an “intruder” in a new society. Is that a reasonable assumption? Why not consider the idea that such people will be approached with a mix of curiosity and admiration? Why assume that revived cryonics patients only have things to learn and nothing to offer? Occasionally, advocates of cryonics are accused of being too “utopian” but it cannot be denied that a lot of skeptics have distinct dystopian

views of the future. Which brings me to my last point. Cryonics organizations and their members should make an effort to present realistic but desirable visions of the future. The emphasis here is on *visions*. Instead of imagining the future as something scary, or at least as something presenting a series of challenges, it would be nice to be offered a panoply of good reasons to want to live longer.

## CONCLUSION

Cryonics, no doubt, will always be associated with cryopreservation of the body or brain. That is the core activity of a cryonics organization. But if we want more people to make cryonics arrangements, we need to embrace a much richer concept of identity that gives people the impression that our ultimate goal is to ensure that their lives will be *continued* after resuscitation instead of being dumped in a foreign and incomprehensible world. I am not arguing that cryonics organizations should feel exclusively responsible for this but I do think we can do a lot better than we are doing today and hope that more people will be motivated to further strengthening their cryonics organizations along those lines. ■

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10 bottles	\$22.73 each	<b>\$17.05 each</b>



### References

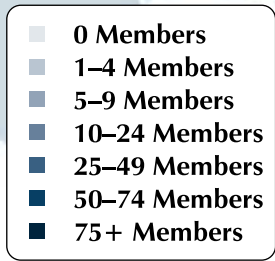
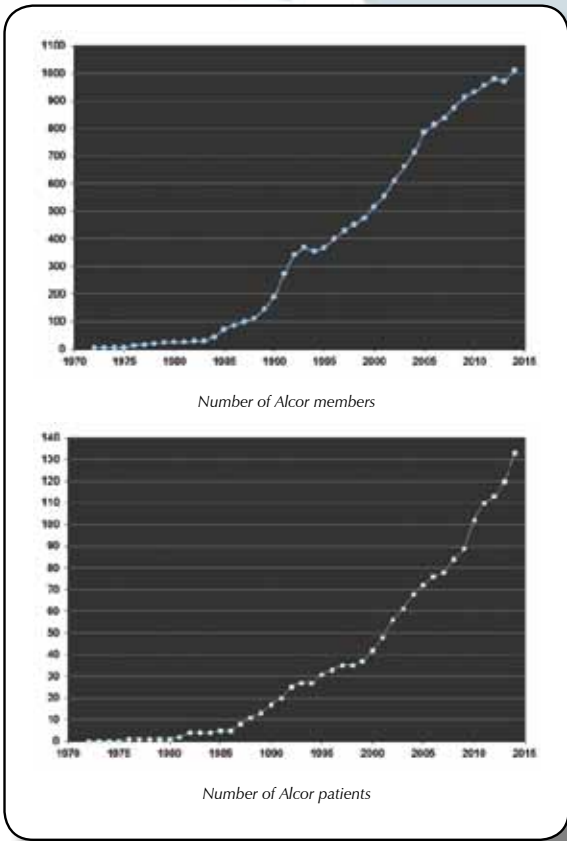
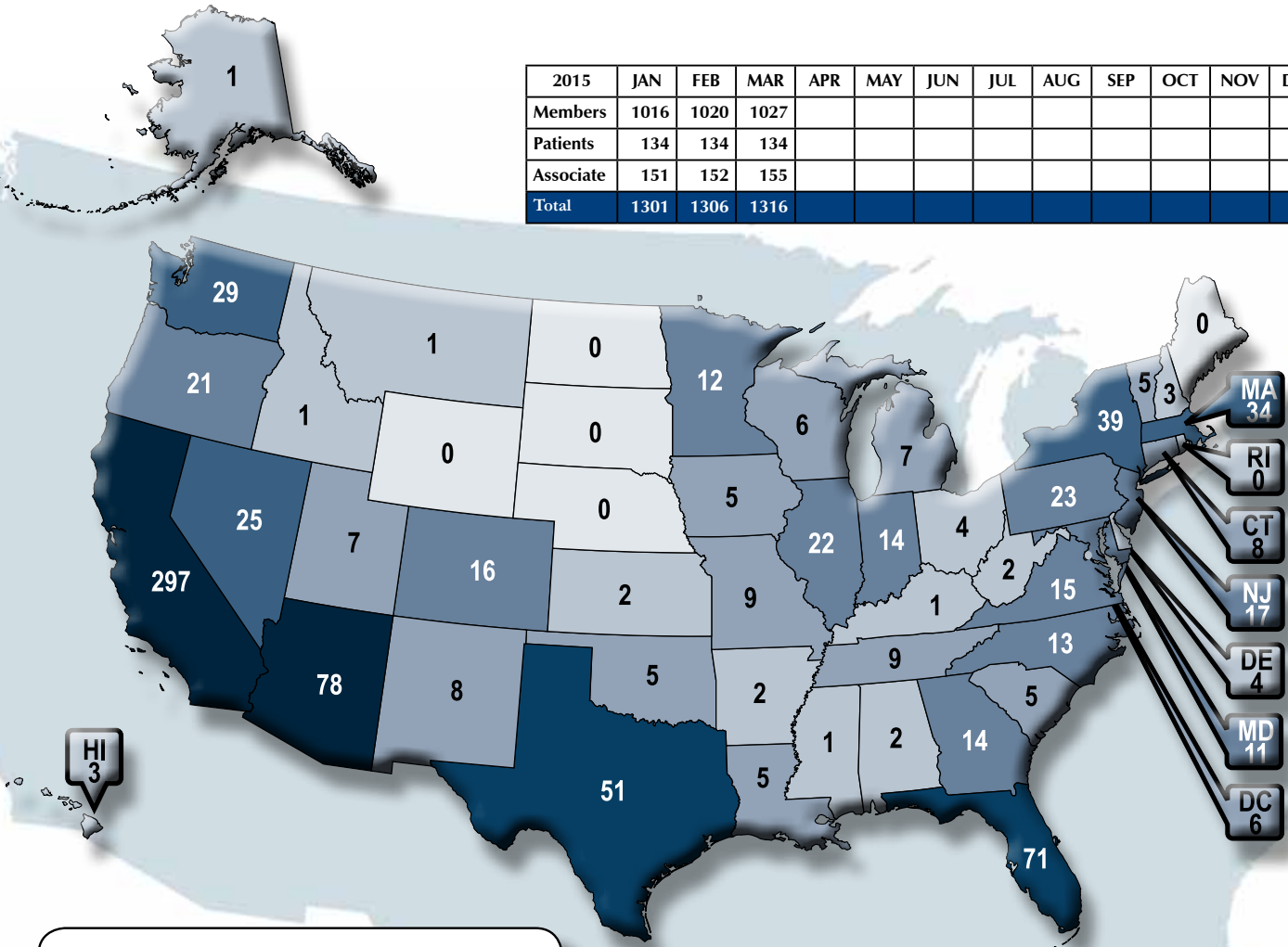
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3. *J Am Diet Assoc.* 2005 Mar;105(3):428-40.
4. *Nutrition.* 2005 Feb;21(2):131-6.
5. *Biochem Biophys Acta.* 2004 Jun 1;1682(1-3):80-91.

**Note:** While the health benefits of omega-3s from fish oil are universally recognized, the critical importance of olive oil in maintaining healthy vascular function remains largely overlooked.

To order **Super Omega-3**, call **1-800-544-4440** or visit **www.LifeExtension.com**

# Membership Statistics

2015	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Members	1016	1020	1027									
Patients	134	134	134									
Associate	151	152	155									
<b>Total</b>	<b>1301</b>	<b>1306</b>	<b>1316</b>									



### International

Country	Members	Patients
Australia	10	3
Canada	43	2
Germany	5	0
Hong Kong	1	0
Israel	1	1
Italy	3	0
Japan	3	0
Mexico	4	0
Monaco	1	0
Netherlands	2	0
New Zealand	2	0
Norway	1	0
Portugal	4	0
Singapore	1	0
Spain	3	1
Thailand	3	1
United Arab Emirates	1	0
United Kingdom	23	2
<b>TOTAL</b>	<b>111</b>	<b>10</b>



# ARE YOU GETTING Curcumin's BENEFITS?



**Curcumin** is the health-promoting trace compound derived from the Indian spice **turmeric**. But not all turmeric is alike.

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**Life Extension's Super Bio-Curcumin**® derives from turmeric that is grown with organic practices, cultivated to maturity, then specially transported and processed to preserve and deliver the root's most **complete** nutritional profile.

In recent studies comparing the effects of standard curcumin against turmeric extracts comparable to **Super Bio-Curcumin**®, researchers observed:<sup>1,2</sup>

- Nearly **twice** the support for **immune** health.
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- Almost **double** the **antioxidant** support.

A separate study indicated that an antioxidant-rich curcumin extract<sup>3</sup> provided powerful support for heart health.

## Unrivalled Potency and Absorbability with BCM-95®

Curcumin is neither absorbed nor retained well in the blood, which is another challenge facing those who wish to maximize its benefits.

The highly popular **Super Bio-Curcumin**® uses **BCM-95**®, a patented, *bioenhanced* preparation of curcumin. It has been shown to reach up to **7 times higher concentration** in the blood than standard curcumin.<sup>4</sup>

The graphs on this page illustrate that one 400 mg vegetarian capsule per day of **Super Bio-Curcumin**® supplies the equivalent of **2,500 mg** of commercial curcumin supplements.

A bottle containing 60 vegetarian capsules of **Super Bio-Curcumin**® retails for \$38. If a member buys four bottles, the price is reduced to only **\$26.25** per bottle.



Item # 00407

### References

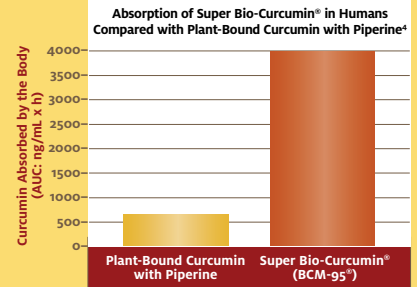
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4. *Indian J Pharm Sci.* 2008 Jul-Aug;70(4):445-9.
5. Bioavailability study of BCM-95® in rats. Orcas International Inc. 2006.

**CAUTION:** Do not take if you have gallbladder problems or gallstones. If you are taking anti-coagulant or anti-platelet medications, or have a bleeding disorder, consult your healthcare provider before taking this product.

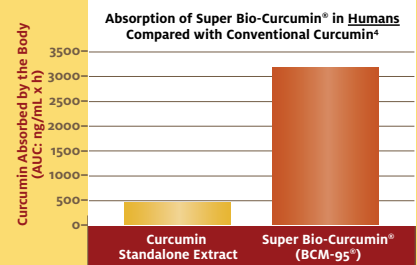
**Bio-Curcumin**® and **BCM-95**® are registered trademarks of Dolcas-Biotech, LLC.

U.S. Patent Nos. 7,883,728, 7,736,679 and 7,879,373.

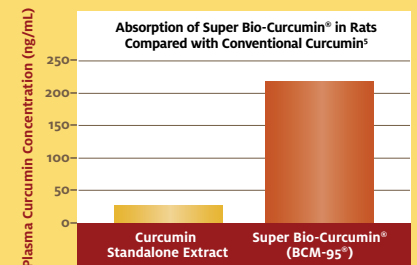
## How Much Curcumin Are You Absorbing?



**Chart 1.** Super Bio-Curcumin® (BCM-95®) showed 6.3 times greater bioavailability (absorption and sustainability over 8 hours) in humans compared with plant-bound curcumin with piperine (as measured by the area under the curve [AUC] in a plot of blood levels against time, that is, the total amount of curcumin absorbed by the body over 8 hours).



**Chart 2.** Super Bio-Curcumin® (BCM-95®) showed 6.9 times greater bioavailability (absorption and sustainability over 8 hours) in humans compared with conventional curcumin (as measured by the area under the curve [AUC] in a plot of blood levels against time, that is, the total amount of curcumin absorbed by the body over 8 hours).



**Chart 3.** Bioavailability in rats fed with BCM-95® is 7.8 times higher than conventional curcumin.

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## Canada Ends Ban on Physician-Assisted Dying

The Supreme Court of Canada shifted the goalposts Feb. 6 on one of the most fundamental of human laws. In a charter precedent that will go down in the history books as *Carter vs. Canada*, the court unanimously struck down the ban on providing a doctor-assisted death to mentally competent but suffering and “irremediable” patients. The emphatic, unanimous ruling prompted tears of joy and frustration on both sides of the debate, reverberated through provincial health ministries and doctor’s offices across Canada, and left skittish federal parliamentarians groping for time to digest the implications. “The prohibition on physician-assisted dying infringes on the right to life, liberty and security of the person in a manner that is not in accordance with the principles of fundamental justice,” the nine justices flatly asserted. The judgment does not limit physician-assisted death to those suffering a terminal illness. The court suspended its judgment for 12 months, during which the current law continues to apply, placing enormous pressure on Parliament to act in what is an election year.

Winnipeg Free Press  
6 Feb. 2015

<http://www.winnipegfreepress.com/arts-and-life/life/health/death-on-the-docket-supreme-court-rules-today-on-doctor-assisted-suicide-291024751.html>

## Promising Peptide for TBI, Heart Attack and Stroke

Strokes, heart attacks and traumatic brain injuries are separate diseases with certain shared pathologies that achieve a common end—cell death and human injury due to hypoxia, or lack of oxygen. In these diseases, a lack of blood supply to affected tissues begins a signaling pathway

that ultimately halts the production of energy-releasing ATP molecules—a death sentence for most cells. By employing derivatives of humanin, a naturally occurring peptide encoded in the genome of cellular mitochondria, researchers at Ben Gurion University of the Negev are working to interrupt this process, buying precious time for tissues whose cellular mechanisms have called it quits. “The present findings could provide a new lead compound for the development of drug therapies for necrosis-related diseases such as traumatic brain injury, stroke and myocardial infarction—conditions for which no effective drug-based treatments are currently available [that work by blocking necrosis],” said Abraham Parola, a professor of biophysical chemistry at Ben Gurion University of the Negev in Beer-Sheva, Israel.

ScienceDaily  
8 Feb. 2015

<http://www.sciencedaily.com/releases/2015/02/150208152755.htm>

## Towards 3D-Printing Artificial Organs—Synthetic DNA Gel Points the Way

A two-part water-based gel made of synthetic DNA and peptide could bring the inventors of a 3D bio printer closer to being able to print organs for transplant, or to replace animal testing. The teams led by Dongsheng Liu (Tsinghua University) and Will Shu (Heriot-Watt University) faced two main challenges: finding a matrix or scaffold to support the live cells in 3D, and being able to produce a consistent product which would not be rejected by transplant recipients. Shu explains: “The first challenge was that if we used a normal gel it was not possible to mix live cells with it for 3D printing. Colleagues at Tsinghua University in Beijing developed a gel which, like some proprietary glues, comes as two separate liquids into which cells can be added. These

do not turn into a gel until the two liquids are actually mixed together during the printing process,” Liu said. “The formation of our new DNA gel does not involve heat, UV, salt or other harsh conditions. In combination with Shu’s delicate 3D printing system, we have [shown] we can produce a three-dimensional matrix containing highly viable live cells.”



Nanowerk News  
11 Feb. 2015

[http://www.nanowerk.com/news2/gadget/newsid=39009.php?utm\\_source=feedburner&utm\\_medium=email&utm\\_campaign=Feed%3A+NanowerkEmergingTechnologiesNews+%28Nanowerk+Emerging+Technologies+News%29#ixzz3RXx7Yxu8](http://www.nanowerk.com/news2/gadget/newsid=39009.php?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+NanowerkEmergingTechnologiesNews+%28Nanowerk+Emerging+Technologies+News%29#ixzz3RXx7Yxu8)

## Neurons Constantly Rewrite Their DNA

Johns Hopkins scientists have discovered that neurons are risk takers: They use minor “DNA surgeries” to toggle their activity levels all day, every day. Since these activity levels are important in learning, memory and brain disorders, the researchers think their finding will shed light on a range of important questions. A summary of the study will be published online in the journal *Nature Neuroscience* on April 27. “We used to think that once a cell reaches full maturation, its DNA is totally stable, including the molecular tags attached to it to control its genes and maintain the cell’s identity,” says Hongjun Song, Ph.D., a professor of neurology and neuroscience in the Johns Hopkins University School of Medicine’s Institute for Cell Engineering. “This research shows that some cells actually alter their DNA all the time, just to perform everyday functions.” This DNA

alteration is called DNA demethylation. Methyl groups are regulatory tags that are permanently bound to cytosines, the C's in DNA's four-letter alphabet. Removing them is a multistep process.

Johns Hopkins University  
27 Apr. 2015

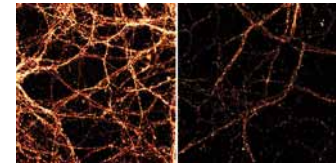
[http://www.hopkinsmedicine.org/news/media/releases/neurons\\_constantly\\_rewrite\\_their\\_dna](http://www.hopkinsmedicine.org/news/media/releases/neurons_constantly_rewrite_their_dna)

### 3D Reconstruction of Neuronal Networks Provides Unprecedented Insight

A key challenge in neuroscience research is identifying organizational principles of how the brain integrates sensory information from its environment to

generate behavior. One of the major determinants of these principles is the structural organization of the highly complex, interconnected networks of neurons in the brain. Dr. Oberlaender and his collaborators have developed novel techniques to reconstruct anatomically-realistic 3D models of such neuronal networks in the rodent brain. The resultant model has now provided unprecedented insight into how neurons within and across the elementary functional units of the sensory cortex—cortical columns—are interconnected. The researchers found that in contrast to the decade-long focus of describing neuronal pathways within a cortical column, the majority of the cortical circuitry interconnects neurons across cortical columns. Moreover, these “trans-columnar” networks are not uniformly structured. Instead, pathways follow multiple highly specialized principles,

which for example mirror the layout of the sensory receptors at the periphery.



Images of mouse neurons from the hippocampal region of the brain. Levels of the surface receptor *GluR1*, orange, are shown in unmodified neurons, left, and in those with increased levels of *Tet3*, right.

Max Planck Florida Institute for Neuroscience  
5 May 2015

<http://www.maxplanckflorida.org/news-and-media/news/3d-reconstruction-of-neuronal-networks-provides-unprecedented-insight-into-organizational-principles-of-sensory-cortex/>

## A Roadmap to Resuscitation

Successful rejuvenation of cryonics patients will require three distinct technologies: (1) A cure for the disease that put the patient in a critical condition prior to cryopreservation; (2) biological or mechanical cell repair technologies that can reverse any injury associated with the cryopreservation process and long-term care at low temperatures; (3) rejuvenation biotechnologies that restore the patient to good health prior to resuscitation. OR it will require some entirely new approach such as (1) mapping the ultrastructure of cryopreserved brain tissue using nanotechnology, and (2) using this information to deduce the original structure and repairing, replicating or simulating tissue or structure in some viable form so the person “comes back.”

The following list is a list of landmark papers and books that reflect ongoing progress towards the resuscitation of cryonics patients:

Jerome B. White, “**Viral-Induced Repair of Damaged Neurons with Preservation of Long-Term Information Content**,” Second Annual Conference of the Cryonics Societies of America, University of Michigan at Ann Arbor, April 11-12, 1969, by J. B. White reprinted in *Cryonics* 35:10 (October 2014), 8-17.

Michael G. Darwin, “**The Anabolocyte: A Biological Approach to Repairing Cryoinjury**,” *Life Extension*

*Magazine* (July-August 1977):80-83. Reprinted in *Cryonics* 29:4 (4th Quarter 2008),14-17.

Greg Fahy, “**A ‘Realistic’ Scenario for Nanotechnological Repair of the Frozen Human Brain**,” in Brian Wowk, Michael Darwin, eds., *Cryonics: Reaching for Tomorrow*, Alcor Life Extension Foundation, 1991.

Ralph C. Merkle, “**The Molecular Repair of the Brain**,” *Cryonics* 15(January 1994):16-31 (Part I) & *Cryonics* 15(April 1994):20-32 (Part II).

Ralph C. Merkle, “**Cryonics, Cryptography, and Maximum Likelihood Estimation**,” First Extropy Institute Conference, Sunnyvale CA, 1994.

Aubrey de Grey & Michael Rae, “**Ending Aging: The Rejuvenation Breakthroughs That Could Reverse Human Aging in Our Lifetime**.” St. Martin’s Press, 2007

Robert A. Freitas Jr., “**Comprehensive Nanorobotic Control of Human Morbidity and Aging**,” in Gregory M. Fahy, Michael D. West, L. Stephen Coles, and Steven B. Harris, eds, *The Future of Aging: Pathways to Human Life Extension*, Springer, New York, 2010, pp. 685-805.

Chana de Wolf (now Phaedra), “**Reconstructive Connectomics**,” *Cryonics* 34:7 (July 2013), 26-28.

# ALCOR 2015 CONFERENCE

## OCTOBER 9-11, 2015

**The Alcor 2015 Conference will be held on October 9-11, 2015 at the Scottsdale Resort and Conference Center at McCormick Ranch, located at 7700 East McCormick Parkway, Scottsdale, AZ 85258.**

### HOTEL ROOMS:

The room rate is \$179 per night plus 13.5% sales tax. The suites are \$279 per night. Attendees must contact hotel at least 30 days before to identify themselves as part of the group. Get hotel rooms at the Scottsdale Resort at this link to get conference rates.

### REGISTRATION:

Note: Alcor will waive the normal \$90 Membership Application Fee for conference attendees joining Alcor.

Early registration, until July 21: **\$295** (\$315 non-members)

July 22 to September 7: **\$345** (\$365 non-members)

From September 8: **\$385** (\$405 non-members)

You may register with the PayPal button below (PayPal account not required), with a credit card by calling Bonnie Magee at Alcor: 1-877-462-5267 ext. 114, or by sending a check to Alcor Life Extension Foundation, 7895 East Acoma Drive Suite 110, Scottsdale, Arizona 85260.

**Sunday afternoon tour and cookout:** The tour is free, but if you want the catered lunch, add \$20 to your registration.

### THEMES *(Stay tuned for speaker list)*

- Repair and revival scenarios, rehabilitation, and reintegration.
- The evidence supporting cryonics.
- How can a regular person afford cryonics and best plan for funding it and their own post-revival life?
- Research.
- How would you spend \$10 billion on anti-aging research?
- Legal issues.
- What happens if cryonics grows at 25% for 50 years? X128,000. 128 million members. 1.2 million cases/year.

### CONFERENCE SCHEDULE

#### Friday • October 9, 2015

5:00 pm - 8:00 pm Registration  
 7:00 pm - 10:00 pm Reception  
 8:00 pm Welcome Address  
 10:00 pm until late Networking

#### Saturday • October 10, 2015

7:30 am - 12:00 pm Registration  
 7:30 am - 8:30 am Breakfast  
 9:00 am - 12:30 pm Speaker Presentations  
 12:30 pm - 2:15 pm Lunch  
 2:15 pm - 5:30 pm Speaker Presentations  
 7:00 pm - 10:00 pm Banquet Dinner  
 10:00 pm until late Networking

#### Sunday • October 11, 2015

7:00 am - 9:00 am Breakfast  
 9:30 am - 1:00 pm Speaker Presentations  
 2:00 pm - 6:00 pm Alcor Open House & Cookout





# MEETINGS

## ABOUT THE ALCOR FOUNDATION

The Alcor Life Extension Foundation is a nonprofit tax-exempt scientific and educational organization dedicated to advancing the science of cryopreservation and promoting cryonics as a rational option. Being an Alcor member means knowing that—should the worst happen—Alcor's Emergency Response Team is ready to respond for you, 24 hours a day, 365 days a year.

Alcor's Emergency Response capability includes specially trained technicians and customized equipment in Arizona, northern California, southern California, and south Florida, as well as many additional certified technicians on-call around the United States. Alcor's Arizona facility includes a full-time staff, and the Patient Care Bay is personally monitored 24 hours a day.

## ARIZONA

### FLAGSTAFF:

Arizona without the inferno. Cryonics group in beautiful, high-altitude Flagstaff. Two-hour drive to Alcor. Contact [eric@flagstaffcryo.com](mailto:eric@flagstaffcryo.com) for more information.

## PHOENIX

### VALLEY OF THE SUN:

This group meets monthly, usually in the third week of the month. Dates are determined by the activity or event planned. For more information or to RSVP, visit <http://cryonics.meetup.com/45/> or email Lisa Shock at [lisa@alcor.org](mailto:lisa@alcor.org).

### AT ALCOR:

Alcor Board of Directors Meetings and Facility Tours—Alcor business meetings are generally held on the first Saturday of every month starting at 11:00 AM MST. Guests are welcome to attend the fully-public board meetings. Facility tours are held every Tuesday at 10:00 AM and Friday at 2:00 PM. For more information or to schedule a tour, call Marji Klima at (877) 462-5267 x101 or email [marji@alcor.org](mailto:marji@alcor.org).

## CALIFORNIA

### LOS ANGELES:

Alcor Southern California Meetings—For information, call Peter Voss at (310) 822-4533 or e-mail him at [peter@optimal.org](mailto:peter@optimal.org). Although monthly meetings are not held regularly, you can meet Los Angeles Alcor members by contacting Peter.

### SAN FRANCISCO BAY:

Alcor Northern California Meetings are held quarterly in January, April, July, and October. A CryoFeast is held once a year. For information on Northern California meetings, call Mark Galeck at (650) 969-1671, (650) 534-6409 or email [Mark\\_galeck@pacbell.net](mailto:Mark_galeck@pacbell.net).

## FLORIDA

Central Florida Life Extension group meets once a month in the Tampa Bay area (Tampa and St. Petersburg) for discussion and socializing. The group has been active since 2007. Email [arcturus12453@yahoo.com](mailto:arcturus12453@yahoo.com) for more information.

## NEW ENGLAND

### CAMBRIDGE:

The New England regional group strives to meet monthly in Cambridge, MA—for information or to be added to the Alcor NE mailing list, please contact Bret Kulakovich at 617-824-8982, [alcor@bonfireproductions.com](mailto:alcor@bonfireproductions.com), or on FACEBOOK via the Cryonics Special Interest Group.

### PACIFIC NORTHWEST

A Yahoo mailing list is also maintained for cryonicists in the Pacific Northwest at <http://tech.groups.yahoo.com/group/CryonicsNW/>.

## BRITISH COLUMBIA (CANADA):

The contact person for meetings in the Vancouver area is Keegan Macintosh: [keegan.macintosh@me.com](mailto:keegan.macintosh@me.com).

## OREGON:

The contact person for meetings in the Portland area is Aschwin de Wolf: [aschwin@alcor.org](mailto:aschwin@alcor.org). See also: <https://www.facebook.com/portland.life.extension>

## ALCOR PORTUGAL

Alcor Portugal is working to have good stabilization and transport capabilities. The group meets every Saturday for two hours. For information about meetings, contact Nuno Martins at [n-martins@n-martins.com](mailto:n-martins@n-martins.com). The Alcor Portugal website is: [www.alcorportugal.com](http://www.alcorportugal.com).

## TEXAS

### DALLAS:

North Texas Cryonauts, please sign up for our announcements list for meetings (<http://groups.yahoo.com/group/cryonauts-announce>) or contact David Wallace Croft at (214) 636-3790 for details of upcoming meetings.

### AUSTIN/CENTRAL TEXAS:

A new group for the Austin area has been started for those interested in discussion and understanding of the relevant technologies and issues for cryopreservation, genomics, epigenetics and medical research for increased life/health span. Contact Tom Miller, 760-803-4107 or [tom@blackmagicmissileworks.com](mailto:tom@blackmagicmissileworks.com).

## JAPAN

Cryonics meetings are held monthly in Tokyo. Send queries to [grand88\(at\)yahoo.com](mailto:grand88(at)yahoo.com).

## UNITED KINGDOM

There is an Alcor chapter in England. For information about meetings, contact Alan Sinclair at [cryoservices@yahoo.co.uk](mailto:cryoservices@yahoo.co.uk). See the web site at [www.alcor-uk.org](http://www.alcor-uk.org).

**If you are interested in hosting regular meetings in your area, contact Alcor at 877-462-5267, ext. 113. Meetings are a great way to learn about cryonics, meet others with similar interests, and introduce your friends and family to Alcor members!**

# WHAT IS CRYONICS?

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Cryonics is an attempt to preserve and protect human life, not reverse death. It is the practice of using extreme cold to attempt to preserve the life of a person who can no longer be supported by today's medicine. Will future medicine, including mature nanotechnology, have the ability to heal at the cellular and molecular levels? Can cryonics successfully carry the cryopreserved person forward through time, for however many decades or centuries might be necessary, until the cryopreservation process can be reversed and the person restored to full health? While cryonics may sound like science fiction, there is a basis for it in real science. The complete scientific story of cryonics is seldom told in media reports, leaving cryonics widely misunderstood. We invite you to reach your own conclusions.

## HOW DO I FIND OUT MORE?

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The Alcor Life Extension Foundation is the world leader in cryonics research and technology. Alcor is a non-profit organization located in Scottsdale, Arizona, founded in 1972. Our website is one of the best sources of detailed introductory information about Alcor and cryopreservation ([www.alcor.org](http://www.alcor.org)). We also invite you to request our FREE information package on the "Free Information" section of our website. It includes:

- A fully illustrated color brochure
- A sample of our magazine
- An application for membership and brochure explaining how to join
- And more!

**Your free package should arrive in 1-2 weeks.** (The complete package will be sent free in the U.S., Canada, and the United Kingdom.)

## HOW DO I ENROLL?

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Signing up for a cryopreservation is easy!

**Step 1:** Fill out an application and submit it with your \$90 application fee.

**Step 2:** You will then be sent a set of contracts to review and sign.

**Step 3:** Fund your cryopreservation. While most people use life insurance to fund their cryopreservation, other forms of prepayment are also accepted. Alcor's Membership Coordinator can provide you with a list of insurance agents familiar with satisfying Alcor's current funding requirements.

**Finally:** After enrolling, you will wear emergency alert tags or carry a special card in your wallet. This is your confirmation that Alcor will respond immediately to an emergency call on your behalf.

Not ready to make full arrangements for cryopreservation? Then **become an Associate Member** for \$10/month (or \$30/quarter or \$120 annually). Associate Members will receive:

- *Cryonics* magazine by mail
- Discounts on Alcor conferences
- Access to post in the Alcor Member Forums
- A dollar-for-dollar credit toward full membership sign-up fees for any dues paid for Associate Membership

To become an Associate Member send a check or money order (\$10/month or \$30/quarter or \$120 annually) to Alcor Life Extension Foundation, 7895 E. Acoma Dr., Suite 110, Scottsdale, Arizona 85260, or call Marji Klima at (480) 905-1906 ext. 101 with your credit card information. You can also pay using PayPal (and get the Declaration of Intent to Be Cryopreserved) here: <http://www.alcor.org/BecomeMember/associate.html>



**Call toll-free TODAY to start your application:**

**877-462-5267 ext. 132 • [info@alcor.org](mailto:info@alcor.org) • [www.alcor.org](http://www.alcor.org)**



## You're going to great lengths to avoid death. Why not do something to prolong life.

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