

ASCHWIN AND CHANA de WOLF's BLOG

Depressed Metabolism is a blog about cryonics, life extension and related issues.

Contributors include Aschwin de Wolf, Chana de Wolf, and guest contributors who share a personal interest in disseminating information about the science of personal survival.



Photo Ben Best

Since September 2007 we have published more than 40 entries. Popular writings include:

- * Hydrogen sulfide does not induce hypometabolism in sheep
- * Fever and brain injury
- * Stability and autolysis of cortical neurons in post-mortem adult rat brains
- * Biostasis through chemopreservation
- * Vitrification agents in cryonics: VM-1
- * Hypothermia, shivering and cryonics
- * H.P. Lovecraft and the science of resuscitation
- * Warm biostasis through nanotechnology
- * Liquid ventilation in cryonics
- * Why is cryonics so unpopular?
- * Albert Einstein's brain and information-theoretic death

On the website you can subscribe to the blog as a feed or through an email newsletter. The URL for the blog is:

<http://www.depressedmetabolism.com/>
Please support the cause of cryonics and forward this message to other forums and anyone you think is interested.

Aschwin de Wolf lives in Portland, Oregon. He moved to the United States from the Netherlands in 2000 and joined the Alcor Life Extension Foundation in January 2003. He worked for the cryonics company Suspended Animation, Inc. from 2004 until 2007. Aschwin serves as a consultant for a number of cryonics organizations and participates in Alcor's technical development and research.

His interests include cerebral ischemia, pharmacological modulation of metabolism, and rejuvenation of the brain.

Chana de Wolf lives in Portland, Oregon, and joined the Alcor Life Extension Foundation in February 2007. She previously held a position as a research associate at Alcor to help build a sustainable, multi-faceted cryonics research program. Chana graduated from the University of North Texas with a B.S. in Experimental Psychology in 2001 and received an M.S. in Cognition and Neuroscience from the University of Texas at Dallas in 2003.

She has several years of experience working as a research assistant in a variety of laboratory environments, and has taught college-level courses in neuroscience lab methods and biology.

Her interests include drug administration and efficacy, the neurophysiology of learning and memory (especially as concerns the aging brain), and pharmacological modulation of age-related cognitive deficits.

CIYG DIGEST

This is an occasional compilation of messages from The Cryonics Institutes Yahoo Groups (CIYG) forum.

Last Thursday, May 29, two CI-Members deanimated on the same day. CI-88 was in Ohio and CI-89 was in Switzerland. CI-88 was driven from Ohio, perfused and was in the cooling box within 10 hours after deanimation -- and has just been placed in liquid nitrogen. CI-89 will be arriving in Michigan tomorrow afternoon for perfusion. The Swiss patient was shipped through Frankfurt, Germany, where there is a direct flight to Detroit and we have an enthusiastically co-operative funeral director. Ben Best

Overseas patients already faced terrible issues with delay, but since our Australian patient (CI-87) the regulations have gotten worse. Before the new regulations we were in a position to receive CI-89 on Saturday. But the new regulations (US regulations) now require approval of the State Department and Health Department before shipping, and there is a narrow window every day when it is business hours both in Europe and in the USA where officials can speak to each other.-- Ben

Any history of cryonics should name the legislators responsible for these new regulations. I wonder whether similar regulations exist with regards to shipping into Russia.? John de Rivaz

We don't know that for sure, but in those few cases when we were planning to accept a patient the funeral company said that nothing special is needed on Russian side other than a licensed funeral company willing to accept the body in the airport. So in a genuine cryonics case we can easily accept a patient very quickly. It may get easier in the future when we build closer relations with some funeral firms.

We also plan to eventually build capability to travel to EU countries and do perfusion/standby, but no definite plans exist yet.

BTW, America can be blamed for other anti-cryonics actions too. I was told today that US scientists are buying all the xenon they can get all over the world, driving prices up and creating shortages (they plan to use it as fuel for the Mars mission). This hinders our research into xenon-based cryoprotection. If anyone has some spare xenon lying around, we could use some of it. ;)--Danila Medvedev, KrioRus.

As I type this it has just gone midnight here in eastern Australia. In Michigan it has just gone 10 a.m.

<http://www.greenwichmeantime.com/time-zone/usa/michigan/time.htm>

That means we are 14 hours ahead of you, or 10 hours behind on the next day. Our respective business hours don't overlap at all.

As soon as circumstances permit, I will be visiting CI (and more generally, Michigan and the US). Amongst other things I will investigate the possibility of living there.

"American Consulate will no longer accept a FAXed Death Certificate, which made for problems quickly getting the original from Switzerland to Frankfurt."

They required the actual document?!! Surely to goodness they would accept a faxed copy accompanied by a message saying 'original follows'?
Chris Manning

"There was additional delay in this case because the cause of death written on the death certificate was "natural causes" and American standards require more precision. I am told that these new regulations are not specific to cryonics, but apply to all shipment of human remains into the United States. But cryonics is an added complication. With these new regulations we will be lucky when and if we can get European patients within two days of deanimation in the future."--Ben

??? Xenon is an inert gas, so how can it be used as fuel?--Bob (Ettinger)

Apparently using ion engines. See this page for example:
<http://www.astronautix.com/craft/marpost.htm> It's about an old Soviet Mars mission project, but the technology might be similar to what NASA is considering now.—Danila

The inert gas xenon, which is similar to helium and neon but heavier, is used as propellant. The composition of xenon is simple: each atom consists of a tiny and dense nucleus surrounded by a cloud of electrons. The nucleus is 54 positively charged protons plus about 76 neutral neutrons. (Xenon gas is a mixture of 9 isotopes, meaning there are 9 different values for the number of neutrons. From a low of 70 to a high of 82, the number of neutrons makes only very modest differences in the behaviors of the atoms.) The 54 positive charges in the nucleus are precisely balanced by 54 negatively charged electrons, rendering the atom electrically neutral -- until the ion propulsion system gets in the act. John de Rivaz

I read somewhere that you are going to be paid a salary from now on. Given that it will presumably be paid from our membership dues, I think we are entitled to know how much it is. (This is not a strong concern of mine; I am merely making the point.)

Starting next week I will be paid \$400 per week as a CI employee, plus \$200 per week as a computer contractor. This is actually only a change of status, not of income, because for a couple years I have been being paid \$600 per week total as a contractor for CI. So the amount of money is not changing. Except that beginning on June 20 my health and dental insurance will be paid by CI. -
-Ben Best ____

Mount Clemens is a small urban center near the CI facility (as may be suspected

by sharp-eyed LONG LIFE readers who look at the postal permit bug on the back cover of the magazine). I was invited to speak to sixth graders at the Mount Clemens Middle School on Wednesday, May 21 as part of "Career Day".

I was scheduled to give six half-hour presentations to students in groups of 15-25 (typical class size). I was in the science and I worked with the school's 6th grade science teacher. In each section I would begin by explaining about the goals and methods of cryonics, then I would tell about my education, work history and skills as well as responsibilities to get things done at the Cryonics Institute.

For the most part I tried to use simple terms, and when I caught myself saying "vitrification" a couple of times, I tried to quickly rephrase. One student asked me what "anti-freeze" means, so I then gave explanations of automobile anti-freeze use to explain the term. That question was exceptional, however. Over and over I was asked "Do you use computers",

"Is your salary over \$35,000", "Do you travel outside of Michigan" and "Were you over 25 when you started your career". I soon found out that the students were given sheets with these questions and were supposed to circle "YES or NO".

With only two exceptions students and teachers offered no objections to anything I said about cryonics. One student could not see the point of doing it to "dead people", so I thereafter said much more about the meaning of death. A teacher who was sitting in on one of the classes told the students that they wouldn't know anyone when they came back.

For the most part the students listened to me like deadened automatons, despite the fact that I tried to mention space travel. When they would ask a question it was almost invariably one of the questions from their sheet. Only one student came up to me after my presentation, and it was to ask me one of the questions from her sheet (an "over-achiever"). The

most lively response I saw from the students was when a mouse ran across the classroom. The second most strong response I got was when I was asked about the youngest person who has been cryopreserved at CI. They reacted with great empathy when I told them it is an eight-year old girl who had leukemia. (I think the reaction had nothing to do with whether she was cryopreserved or not.)

The teacher seemed interested in what I had to say, but her most animated interest was during my first half-hour. There was a tiredness about her as well as with the students. I imagined someone teaching the same thing six times a day becoming a deadened automaton talking to deadened automatons. It was quite a contrast to the energy & enthusiasm I see in the children of my cousins.

During the lunch break I got to see some of the others doing career presentations. There was a high representation of government functionaries. I saw two men in different kinds of police uniforms. There was a librarian, and both the Mayor and Treasurer of Mount Clemens were there. I met the woman who invited me and asked her how she had thought to do so. She said she had looked under science and laboratories in the yellow pages of the phone book looking for someone to represent science and found the Cryonics Institute. I don't know what phone book she was using,

I cannot find such an entry. As the day went on I spoke more and more about cryonics and less and less about my work history, job responsibilities, skills useful in cryonics or anything else. The students and teacher seemed to appreciate it. When I mentioned the paralytic passivity of the students to the teacher during a break, she told me that this was a sign they were interested. She says usually they are much more restless. She even said that the mouse was a sign of their interest because normally the agitation in the room frightens the mouse too much for him/her to make an appearance. Ben Best

I recently purchased a copy of the book 'Why People Believe Weird Things' by

the well-known US skeptic Michael Shermer.

He devotes about a page to a discussion of cryonic suspension. He writes in part:

'If cryonicists could succeed in reviving someone, the distinction between the living and the dead would blur. Life and death would become a continuum instead of the discrete states they have always been. Certainly, definitions of death would have to be rewritten.'

Of course the distinction is already blurred, since death is a process rather than an event. I guess I won't get any argument about that here.

Further on he discusses the fact that a person might be revived but without their memory or personal identity intact. He writes:

'If cryonic revival does not result in return of considerable personal memory and identity, then what's the point?'

An interesting question. Would being restored to life with impaired memories, or no memories, still be desirable? Would I want to be revived without some or all of my memories? I think so but I'm not sure. I guess it would depend in part on whether it will be possible to ascertain the state of my memories prior to my revival.

In *'The First Immortal'* by James L. Halperin, terrorists break into the cryonic facility where the body of Alice Smith is stored and turn the temperature up. She is eventually revived from suspension but without her memories, so when she sees her son she doesn't recognise him. She is able to speak, because the scientists of that future era are able to implant a knowledge of language, and certain other things, into her brain artificially. After the situation is explained to her, she decides that in spite of having no memories of her former life, she is glad to have been revived. However, she regards herself as a different person, and mourns the death of her former self. ('The **real** Alice Smith, God rest her soul, was gone.')

Further on, Shermer writes: 'Ubiquitous in the cryonics literature are reminders that the history of science and technology is replete with stories of misunderstood mavericks, surprise discoveries, and dogmatic closed-mindedness to revolutionary new ideas. The stories are all true, but cryonicists ignore all the revolutionary new ideas that were wrong.'

I think he is right about that, although I think we could argue that some new ideas are more inherently plausible than others. Cryonics, while not achievable today, does not violate any fundamental laws of science, whereas perpetual motion machines do.

Shermer goes on to discuss the theoretical possibility that cryonic suspension will become reversible due to nanotechnology. 'But theory and application are two different things, and a scientific conclusion cannot be based on what **might** be, no matter how logical it may seem or who endorses it. Until we have evidence, our judgment must remain, appropriately enough, suspended.'

Well I think my reply here would be that we make many decisions in life based on taking a position where the standard of proof falls short of being 'scientific'. Cryonics is not a science but a 'protoscience' based on plausible expectations about the future capabilities of science. Sorry to read that the stork died.

No particular contribution from me for the next issue of *'long life'* but feel free to use any of the following, as well as anything I posted to the CI list or to Cryonet.

I will be 84 years of age if I am breathing on December 2, 2040, and will be happy to attend Edgar Swank's 100th birthday party.

Seriously though, the problem will have to be addressed of how to reckon ages of people who have undergone a period of suspension. Do we count that period? James L. Halperin assumes that we do. In his book *'The First Immortal'*, the main character, Benjamin Smith, is revived on January 14, 2072 and his

friend, Carl Epstein wishes him a happy 147th birthday.

In the novel *'Tomorrow and Tomorrow'* by Charles Sheffield, which I recently read, at a certain point in the future, it becomes possible to revive people from cryonic suspension but society has no use for most suspendees, so they are simply left in suspension. Their bodies can't be discarded, because once revival is possible, they are no longer regarded as dead, so discarding them would be murder.

I am happy in principle to live off earth after revival, or for my cryopreserved body to be moved off earth (carefully I hope) should it prove necessary or desirable.

Re: Applications for near earth space flights. I remember that back in the '60s some entrepreneur was taking payments from people in the expectation of such flights becoming possible in the future. I don't remember the details now.

Chris Manning

Monbulk, Australia

There is an individual CI member with terminal lung cancer and negligible assets. One CI member has donated \$3,000 toward his funding. If others will help, soon enough, it might fly.

2. There are always potential cases that might need either full or partial contributions. CI could have an earmarked fund for this purpose, either at the discretion of the president or else subject to directors' approval.

Would such a fund reduce contributions to the CI general fund that might otherwise be made? I doubt it. We get very little in the way of general donations. The experience of all kinds of charities seems to indicate that specialized solicitations are effective.

If you would consider contributing to either (1) or (2), please so indicate, preferably with a rough figure. These things build on momentum. I'll contribute \$1,000 for (1).

One more thing: What happens if (1) is

initiated but falls short? Then the donation could be (a) returned to donor, (b) applied to (2), or (c) applied to the CI general fund. Please indicate your preference.

Bob

I'll match that \$1,000 as a pledge, and send a check when I see an announcement about the program.

One more thing: What happens if (1) is initiated but falls short? Then the donation could be (a) returned to donor, (b) applied to (2), or (c) applied to the CI general fund. Please indicate your preference. I'd think it would be simpler just to have all donations go to the compassionate fund, and be disbursed from it when there is a need and enough funds to cover the particular need. When someone comes along such as the person you mention, with a need, there could be an announcement made about it and that x more dollars are needed in the fund to cover that person.--Guy

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If there is going to be a public announcement of this fundraiser, let me know and I will publish it on my blog and will encourage others to do so as well--Aschwin.

Thanks, Aschwin. Any official announcement will have to come from Ben, or possibly the chairman of a committee formed for the purpose. Bob.

I am having "deja vu all over again" about this - fuzzy memories of Spring 2007 and wondering what happened to the funds to raise money for Marce Johnson, Jonathan Hinek and Joanna Epstein. I would hate to think that I "dropped the ball" on this, but I cannot remember how this developed. Possibly it got lost in the March 2007 Director's

meeting which was a disaster because it coincided with a patient and a failure of the cooling box software. Concerning Marce Johnson, it seems we simply ceased to get any news from David Pizer after the fund reached \$12,000 or so.

On May 30th CI deposited the \$3,000 donation to the CI bank account, so the "fund" has already been started, effectively. It's just a matter of keeping track of it. The Venturists might seem the most suitable agency for doing this kind of work, because they are a charitable "church". The Immortalist Society is charitable, but its purpose is education and research. I don't think money could be refunded from a charitable organization,

As I think about it, we have precedent for doing this with the James Swayze Fund and with the pre-payment account. Pre-payment accounts are refundable. Ben

I have just deleted a submission to this group by Chris Manning which has no direct relation to cryonics. The mandate for this group is to discuss topics directly related to cryonics or the Cryonics Institute. Admittedly, many topics can touch on being relevant, but a slippery slope is easily reached where the topic is pretty remote from direct applicability. Some tolerance is OK, but I think the discussion has crossed the line into the great beyond. I will now delete off-topic ruminating about entropy, quantum, evolution, etc. from messages submitted to this list.

There are plenty of forums on which one can philosophize to their heart's content on any subject under the sun -- including CryoNet. I request that these discussions be taken to those forums. As with CryoNet, when there is so much off-topic discussion, many cryonicists and CI Members can quickly lose interest and begin to feel that this list is simply another source of SPAM. One person's philosophizing is another person's SPAM.--BenBest.