

Alcor Life Extension Foundation Newsletter

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info

Issue: #114

July/August 2012

Alcor Buliding

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WHAT'S NEW AT ALCOR

ASSOCIATE MEMBERSHIP Introducing a new class of Alcor member

Supporters of Alcor who are not yet ready to make cryopreservation arrangements can now become an Associate Member by paying \$10/month. Associate members are members of the Alcor Life Extension Foundation who have not made cryonics arrangements but financially support the organization.

We will encourage members who are having to drop their arrangements temporarily due to reduced income to remain as **Associate Members**.

HOW TO BECOME AN ALCOR MEMBER

Becoming an Alcor member is easy and surprisingly affordable, if you are in good health and eligible for life insurance, which will pay for your

CEO REPORT

Alcor-40 Conference

Alcor's first conference in five years is just two months away as I write. The schedule of speakers and sessions is now filled, registration is open, and the conference webpages are online. We already have over 90 people registered - a quarter of them non-members - a good number considering how many put off registering until the last couple of weeks.

Max Sitting in Dewar

My aim in selecting speakers and sessions is to maintain a practical and science-based concentration on topics of clear relevance to cryonics and life extension. That's why we will be hearing updates on cryopreservation research from Greg Fahy and from Aschwin and Chana de Wolf. We will hear three distinct perspectives on anti-aging theory and practice, concluding with a discussion between the three speakers (Aubrey de Grey, Michael Rose, and Joshua Mitteldorf).

The practical aspect of the conference is especially reflected in the panel on long-term financial planning, another panel on the use of medical monitoring devices for members of cryonics organization, my talk on improving your chances of an optimal cryopreservation, and an update from Suspended Animation. We will also use the conference as an opportunity to both help people enter the sign-up process and to complete their sign-up tasks by holding Sign-Up Salons on Saturday and Sunday.

I'm especially pleased that our invitation to speak was accepted by MIT professor Sebastian Seung, author of *Connectome: How the Brain's Wiring Makes Us Who We Are*, a book that includes a discussion of testing the viability of cryonics and other preservation methods. Another approach to empirically testing the results of cryopreservation will be presented by Todd Huffman, who will explain his diamond knife-edged scanning microscopy (KESM) work.

cryopreservation.

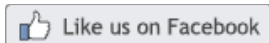
If you are not insurable, other financial arrangements can be made. Please ask us for details or visit the link below.

[ALCOR MEMBERSHIP INFORMATION AND ENROLLMENT INSTRUCTIONS](#)

To find out about: Alcor Training Sessions; Regional Cryonics Meetings as well as Non-Alcor Events in your area, please visit: the **[UPCOMING EVENTS](#)** page on our website.

ALCOR IS ON FACEBOOK

If you would like to connect with Alcor members and supporters then visit: **[OFFICIAL ALCOR FACEBOOK](#)** Become a fan and encourage interested friends, family members, and colleagues to support us too!



DONATIONS ACCEPTED ON ALCOR WEBSITE

Now our valued supporters can make a charitable donation anytime just by clicking the **["DONATE"](#)** button on

We have also put together a sponsorship package (with thanks to input from Barry Aarons) and will be seeking sponsors to help cover expenses, allowing us to keep registration rates affordable (and lower than comparable conferences, including Alcor's previous two). Publicity for the event is now going into high gear. Any suggestions for venues in which to publicize the event would be very welcome.

[Alcor's 112th Patient](#)

On Friday, July 20th, Alcor was notified through the TeleMed alert system that a 90 year old individual wishing to be cryopreserved was in serious condition in a Las Vegas hospital. This individual had filled out an application for membership in 2009 (and was provisionally assigned the number A-2628) but never followed through with the necessary paperwork and funding. Since he became unable to make cryonics arrangements, this case had to be treated as a third-party arrangement. Because this individual requested privacy, I will refer to him by his A number.

Because of the greater risk involved, Alcor requires additional conditions to be met before accepting such a case. These conditions are rarely met. These include some past interest in cryonics on the part of the person for whom cryopreservation is sought; lack of opposition by close relatives; finances in place without undue hardship; no long ischemic time; and informed consent of persons making the arrangement. This case was one of the rare ones to proceed, in large part due to the determined efforts of A-2628's granddaughter supported by the family accountant.

Over the weekend of July 21-22 Aaron and I pushed hard to get more information on his medical condition, to get all necessary Third-Party sign-up documents signed, and to secure payment - all conditions necessary before we could go into action. The grandfather's health declined rapidly, while we ran into administrative delays common at the weekend. Although his clinical death occurred on July 23rd, a day prior to completing the sign-up process, arrangements were made to have his body heparinized and cooled at a local mortuary until his membership status could be approved.

Once the necessary arrangements had been completed, Aaron flew to Las Vegas and arrived approximately 22 hours after clinical death to complete the medication administration, create a more aggressive cooling environment and package the body for flight. An air ambulance was paid for by the family to minimize the travel time and the patient arrived at Alcor for washout and cryoprotection within the next six hours. Several Alcor staff stayed through the night of July 24/25 until A-2628 had been perfused as well as possible given his condition, and dropped below the freezing point.

This case vividly illustrates the danger of postponing making arrangements for cryopreservation until you expect to need it. When the person in question is in his late 80s (and has no shortage of funds), it's especially baffling that he wouldn't complete arrangement in advance, simply to save a few years of membership dues. It's much easier to understand why someone in their 20s might delay making arrangements. But you're still playing the odds. As I write this, there is much discussion of a plea posted on Reddit by a 23-year old woman with terminal brain cancer who has clearly expressed her wish to be cryopreserved.

[Max More](#)
President and Chief Executive Officer

the Alcor website.

Alcor has a long, proud tradition of innovation and technical excellence in the field of cryonics. Your gift will make a difference in our quest for better cryopreservations.

Your decision to **DONATE** is sincerely appreciated. Remember donations are tax deductible.

ALCOR AMAZON WISH LIST

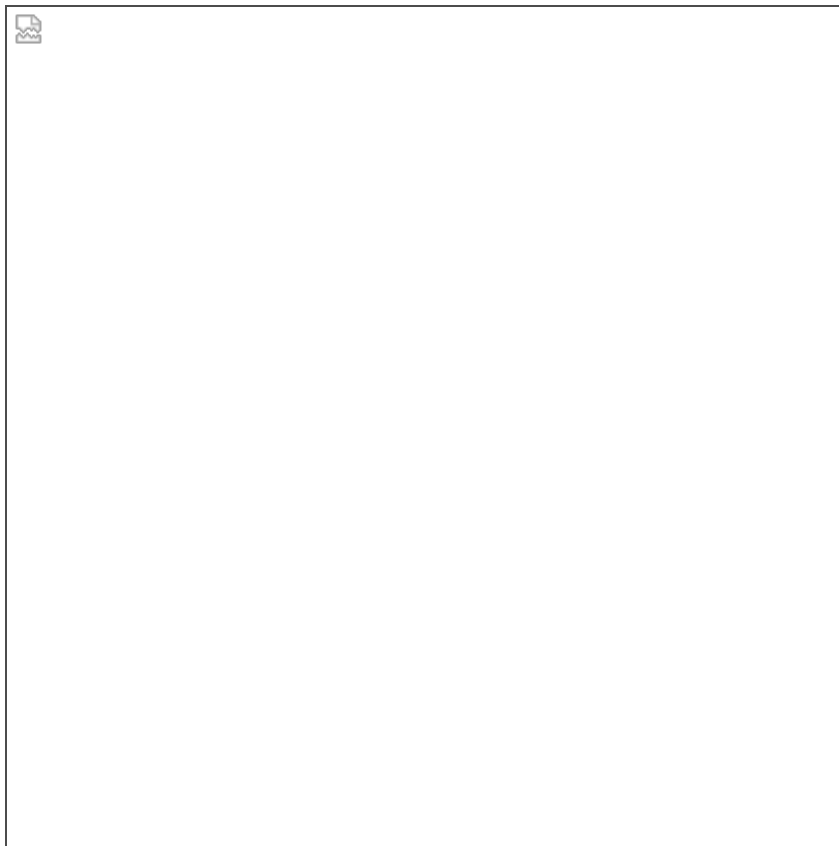
You can also **DONATE** an item directly to Alcor from our Amazon wish list.

ALCOR NEWS BLOG

Don't forget! You don't have to wait for this monthly newsletter to learn more about happenings at Alcor.

For the most up-to-date information throughout the month. Check the [Alcor News Blog](#)

ALCOR 40TH ANNIVERSARY CONFERENCE



FRIDAY, OCTOBER 19 -SUNDAY, OCTOBER 21, 2012

If you are familiar with other recent conferences (and compare to Alcor's 2006 and 2007 events), you'll see that our registration rates are being kept low. We recognize that, especially in the current economy, high conference fees are an obstacle. These are the rates:

August 1 to September 14:	\$325 (\$345 non-members)
From September 15:	\$365 (\$385 non-members)

CONFERENCE WEBSITE LINK:

[ALCOR-40 CONFERENCE: SHAPING THE NEXT 40 YEARS](#)

[SPONSORSHIP OPPORTUNITIES](#)

[SPEAKERS AND EVENTS](#)

READINESS AND TRANSPORT REPORT

Public Education & Media

In an effort to enhance the experience for the Alcor tour attendees, we have created a better way for people to visualize the initial cooldown and stabilization procedures that are performed in the field. The older MARC ice bath has been relocated into the research oriented operating room. Inside the MARC we have placed a full body mannequin that has an advanced airway secured, an intraosseous access medication line established, the original pneumatic Lucas cardio-compression unit has been properly positioned over the chest, a DualLogR monitors

temperatures and the remainder of the ice bath has been filled with simulated ice cubes.

[Ice Bath with Manny Quinn](#)

As we explain the various components of restoring circulation, oxygenation, medication administration and cooling, the participants can now see the equipment used on an actual standby, stabilization and cooldown. This visual display generates a more substantive discussion in comparison to when we simply verbalized the process. Over the last month, Alcor conducted 5 tours with a total of 10 attendees.

Last Minute Case

On Friday, July 20th, Alcor was notified through TeleMed that a 90 year old individual wishing to be cryopreserved was in serious condition in a Las Vegas hospital. After initial discussions with the individual's personal accountant, it was revealed that although this person had completed a membership application in 2009 and previously requested cryopreservation by Alcor in his will, he had failed to execute the contract and provide funding.

A determined granddaughter, wishing to see her grandfather's directives fulfilled, worked through the family's accountant to complete Third-Party sign-up documents and obtain the necessary funding. It became a race against time to complete the process with the grandfather's health rapidly declining along with the administrative delays that a weekend can bring. Although his clinical death occurred on July 23rd, a day prior to completing the sign-up process, arrangements were made to have his body heparinized and cooled at a local mortuary until his membership status could be approved.

Once Max More gave the go ahead, Aaron Drake flew to Las Vegas and arrived approximately 22 hours after clinical death to complete the medication administration, create a more aggressive cooling environment and package the patient for flight. An air ambulance was paid for by the family to minimize the travel time and the patient arrived at Alcor for washout and cryoprotection within the next six hours.

The case well represents the potential costs of procrastination.

Training

This past month, Aaron Drake completed his Instructor certification for CPR, AED, First Aid, Basic Life Support and Bloodborne Pathogens. Any Alcor staff or response team members wishing to become certified in performing any of these can go through Aaron to receive training and a certification card.

TECHNICAL COORDINATOR REPORT

Research and Development - 3D Printer

Alcor 3D-Printer

Alcor's most recent R&D acquisition is a RapMan 3.2 dual extrusion head 3D printer. This machine prints 3-dimensional objects in a variety of plastics such as ABS, PLA and PVA. It can print objects using two different types of plastic at the same time within the same product. Alcor can manufacture our own designs, including items with complex internal fluidic

chambers, tubing connections, thermocouple holders and brackets, and almost any other type of product smaller than an 8"x8"x8" cube. Steve Graber has considerable experience with 3D CAD/CAM programs, and an Architectural

Engineering background. He and Hugh Hixon are now able to conceptualize, design and evaluate in 3D software, then manufacture (in-house) 3-dimensional products. This allows them full control over the process from start to finish on this amazing piece of equipment.

3-D Printer Image 1

Creating parts with complex internal fluidic chambers would normally require a 2-part injection molding processes, a technique which is both very expensive and time consuming, but with specialty plastics Steve and Hixon can create internal chambers spanning less than .5mm in width and .125mm in height. The printer itself came as a kit to save cost and was assembled over a period of 3 days by Steve, Hugh and a qualified Alcor volunteer, Steve's son Jacob.

Our 3D printer has shown promise in its ability to create relatively fine detail. Since it is a relatively new technology to the Research & Development Team, they are still working out the best settings and layouts for various materials and parts. Steve Graber was impressed with the results in a recent article in a *Science* publication which described how images from a CT scan were converted from DICOM files into 3D stereolithography files and subsequently printed on a 3D printer. Based on this information Steve has recently discovered a way in which he can use various software packages to do exactly the same thing. His initial goal with this technology will be to enable Alcor to visualize via CT scanning and subsequently 3D print areas of interest for reference and a deeper understanding of how our procedure affects the brain on a physical level. Steve also expects to use the printer to make numerous custom products for use around the facility, in the O.R. as well as in the R&D lab. The first part printed was put to use in the O.R. as an adapter to attach the new HD digital camera to the end of a boom mike stand.

Data Acquisition System used in the O.R. for the first time

The new data acquisition system was spliced in to the existing whole body tubing system prior to our last case and the new system ran in concert with the old DAQ gathering temperature, refractive index and pressure data. Since the system worked so well, The R&D team are going to be using the new system to gather data from now on. Their next step will be to integrate the new systems chiller functionality, which is just another step towards integrating the entire perfusion control system into the O.R. standard procedure.

O.R. Upgrades

The VHS tape based video recording system has been replaced by a dual camera hi-definition digital recording system. Great care has been taken to develop a methodology which ensures that the digital files will be stored securely. The R&D team expects to be able to provide a digital copy for each patient at such a time in the future as it may be useful. Although they do not know if the media type and codec will be

compatible with future systems, this is the best option at the current state of technology.

OR Team Camera 6-Window

The two camera positions are the standard room wide-view with omni mic and an overhead view mounted on the O.R. light which always aims at the light field of view. The room cam is a true HD image while the overhead cam is a 120 degree wide angle 720P image. Patient - Camera 4-Window

ADMINISTRATIVE REPORT

Membership Statistics

Alcor had a total of 974 members on its Emergency Responsibility List. Five memberships were approved during the month of July, on memberships were reinstated, one member was transferred to associate member, three memberships were cancelled. There was one member cryopreserved. Overall, there was no net gain or loss of members in July.

Applicant Statistics

Alcor had a total of 39 applicants for membership. Seven new applicants were added, five applicants were converted to members and no applicants were cancelled resulting in a net gain of two applicants in July.

Associate Members

Alcor had a total of 16 associate members in July.

Information Packet Statistics

Alcor received 68 info pack requests in July. Thirteen were handed out during facility tours or from special requests. The average total of 80 info packs sent per month in 2012 compares to 104 in 2011. The full [Information Packet](#) is now available online.

ANNUAL ALCOR BOARD OF DIRECTORS MEETING

The ANNUAL [Alcor Board of Directors](#) meeting is scheduled for **Saturday, September 8, 2012**, at 11:00 AM (PDST) at the Alcor facility (7895 East Acoma Drive in Scottsdale, AZ). Members and the public are encouraged to attend.

End of Alcor
News
July/August
bulletin
#114 dated
August 24,
2012

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