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Alcor News Bulletin-----  
Number 43: September 21, 2005  
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Annual Meeting and Elections

On September 10, 2005, the Alcor Board of Directors held its annual meeting, which included elections of Directors and Officers of the corporation. Elected to the Board of Directors were: Saul Kent; Jerry Lemler, MD; Ralph Merkle, PhD; Carlos Mondragon; Michael Riskin, CPA, PhD; Michael Seidl, PhD, JD; Stephen Van Sickle; and Brian Wowk, PhD. Officers are: Michael Riskin, Chairman of the Board and Vice President; Stephen Van Sickle, Executive Director and Acting President; and Joseph Hovey, Secretary/Treasurer. [SVS]

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Financial Matters

As of the end of August, 2005, Alcor had about \$115,000 in external debt, \$96,000 in a business line of credit and the remainder on credit cards. There were accounts payable of about \$79,000, \$29,000 of which were more than 30 days past due. The then-current accounts payable of approximately \$50,000 consisted mostly of construction charges, liquid nitrogen, perfusate chemicals, and rent.

The Patient Care Trust was owed \$120,000 for patient funds collected and not passed on, though this was more than offset by both billed and unbilled patient care expense. Approximately \$40,000 of additional building expenses will come due in the near future. (This is only the portion due from the general fund, since part of the construction is a new patient care bay. The Patient Care Trust is responsible for that portion.)

Comprehensive Member Standby (CMS) fees were being deposited in general funds on receipt, and for the previous five months were not being transferred to the CMS fund. The CMS fund is owed about \$37,000 that was collected on its behalf; but CMS has not been billed for two cases.

These oversights are considered to be violations of Alcor policy, and the accounting system is being corrected to ensure such breaches do not happen again in the future. The Board has voted to transfer \$250k from the Endowment Fund to cover all past due bills. (This transfer is independent of the \$150k that was transferred from the endowment to cover the funds stolen from a member's pre-paid suspension account.) This second transfer of funds is sufficient to bring our accounts up to date, leaving the Endowment Fund with a balance of \$530,000. These transfers are due to unusual cash needs this year, not any insolvency in the organization. [SVS]

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Cryopreservation of A-2071

During the month of August, we deployed a standby team to member A-2071 in San Antonio, Texas, when the patient looked particularly fragile. He rallied shortly after we arrived, however, and the standby lasted seven days prior to pronouncement.

This case marked the simultaneous deployment of two major advances in Alcor's capability: the new transport vehicle and whole-body vitrification. Results of both of these are discussed in more detail below; but the successful conclusion of this case represents the world's first application of whole-body vitrification, where the brain was vitrified without neuroseparation.

During the stabilization of this patient, surface cooling, airway and manual cardiopulmonary support, and many of the smaller-volume medications were administered while the patient was still in his second-floor apartment; treatment began within five minutes of cardiac arrest and within one minute of pronouncement. Once those preliminary steps had been completed, the patient was transferred to the mobile

rescue cart (MRC) and moved to the vehicle. Once moved, treatment included the application of the LUCAS thumper for cardiopulmonary support and the administration of the remaining medications. A local funeral director arrived just as we were preparing to begin the femoral cut-down ourselves, and we proceeded with the washout portion. Stabilization was complete within 2.25 hours, post-pronouncement.

We then drove to the funeral home to begin processing the paperwork. As we were attempting to secure the death certificate, we found the pronouncing hospice physician was unwilling to sign; and we had to track down the patient's personal physician for his signature. We also had difficulty securing a flight that didn't require an overnight stay in Atlanta or Houston. We did manage to find one, but failed to obtain seats for escort personnel. The patient was ultimately shipped unattended.

Once at the lab, the open heart surgery for this whole-body patient was begun, followed by the introduction of the newest cryoprotection protocol. At around 30-40 percent of our target concentration, the system filled with foam, which was subsequently pumped into the patient. Perfusion was stopped, and the foam was methodically removed from the cannula and the aorta, to the best of our ability to do so. This incident highlighted many problems, not the least of which was that the perfusionist had stepped away from his station without providing for a replacement. Other problems contributing to the foam were the ice blockers themselves (X-1000 makes a rather stable foam); the cardiotomy suction system was introducing bubbles into the mixing reservoir; and the mixing reservoir was being run low. It took us a full hour to de-foam as much as we did.

Cryoprotection was terminated after refractive readings in both arterial and venous samples remained above the target for a half hour. The patient experienced severe edema, and we have several theories about what contributed; changes will be made to the whole-body protocol as a result.

This case will be written up for the Nov/Dec issue of Cryonics magazine. With the addition of this patient, Alcor's patient population rises to 69. [TJ]

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#### Transport Vehicle Deployment

We drove the vehicle 1,000 miles to reach member A-2071. The vehicle performed well on the road, and we experienced no problems during this drive.

When we arrived in Texas, we attempted to start the generator, and it was sluggish to respond. It also operated roughly once it did start. Possible sources of this problem were obstruction in the fuel line or wiring problems. Bill Voice actually located the source of the problem late one night, prior to the patient's pronouncement. We had a loose wire in the casing, and it was sparking against the metal frame. Once we protected the wire, the rough operation disappeared.

One other problem surfaced on the vehicle's return trip. One good bump caused several of the unlocked cabinets to open and dump their contents on the head of a resting team member. The cabinets are now all with latches, not just a few.

Procedurally, the vehicle performed as intended. We were only missing some paper documentation, the MRC surgical kit, and respirator connectors for the LUCAS. With the exception of the connectors, the missing equipment was pulled from a remote kit that we'd brought along for just this reason. The new ice bath liner worked extremely well, the old squid did not.

Preparation for the stabilization required only 30 minutes, most of which was spent drawing up the medications for use. The power system supported all the equipment, once the short was repaired. The ice machine produced enough ice for the stabilization; but because melting occurred prior to isolation of the generator problem, we had to buy extra for the patient shipment. (This should not be a problem in future cases.) We took samples, and were able to spin them immediately (according to the processing lab's instructions) using the on-board centrifuge. Our new respirator monitoring equipment also worked well. Also performing better than we'd hoped was the new ice bath liner designed by Bill Voice, which steadily maintained the patient's temperature throughout the entire stabilization and transport. Overall, the new vehicle was a joy. [TJ]

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M22 Implementation

Hugh Hixon was responsible for mixing the perfusate for the recent cryopreservation. He did this while most of the technical staff was in San Antonio, and he had a few problems. The ice blocker, X-1000, needs to be heated to near-boiling to remove condensates that interfered with the first batch of perfusate, and these condensate particles were of sufficient size that the concentrate could not be filtered. He found that microwaving the X-1000 was labor-intensive and somewhat finicky, and so has decided to use an air oven we had in storage. This seems to work better, now that we've prepared more M22 for use in the next case.

We need to experiment a bit with the cryoprotectant, to develop a more concentrated form. The filtration problems for the last case resulted in mixing a slightly lower concentration than we prefer, and used more components than we'd hoped. We only just had enough stock on hand to complete the last case. Toward this end, we ordered a falling-ball viscometer recommended by our advisors to investigate viscosity changes at higher concentrations.

M22 is also volatile and somewhat noxious. We're making provisions for adding a floor fume hood to the lab, one of sufficient size for the disperser and reservoirs, to aid with ventilation.

On the engineering side, the new operating table worked,

but had a couple of problems. The sides are higher than the surgeons were used to, which made the surgery more tiring. The cover sections of the patient box bowed with the cooling from nitrogen vapor used to maintain the patient's external environment, and kept falling half off. We'll be adding lips to the sides of the covers to eliminate this problem. The mechanical box needs a door switch for the temperature controller, and the controller itself needs some adjustment.

The clear Plexiglas sides of the box made viewing the patient easier during cryoprotection, but the whole box fogged significantly when vapor was added. The box is also slightly more difficult to clean. [TJ]

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#### Ramping Up Research

Dr. Sergey Sheleg has begun two research projects. The first is an investigation into histological changes caused by various lengths of time of warm cerebral ischemia in normothermic brains, and the second is a project that we hope will lead to observation of microcirculation in cryoprotecting brains. We've ordered new lab equipment to accomplish these projects and are in the process of setting up his lab.

Restoring our internal research capability is a high priority, and we're re-establishing the Institutional Animal Care and Use Committee to oversee the protocols in our research. Though this committee is not required if we limit ourselves to rats, using any larger animal model will require restoring our USDA license and the committee. We're taking this step now to eliminate the need to do it later. Dr. Timothy A. Martin, DVM, MBA (Director, Animal Care Program, Sun Health Research Institute) accepted our invitation to participate on this committee. With Dr. Martin we're gaining an experienced researcher willing to review and advise us on our experimental protocols. [TJ/SVS]

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#### Regional Activities

Training was held late last month in northern California, and we drove the transport vehicle to familiarize the team. Team members worked on ATP set-up and use on Saturday, August 27th, and Sunday was spent doing a walk-through of a stabilization procedure. Though the walk-through was not completed in the four hours we'd allotted, it was still a useful exercise for participants. The next training will be held at the end of this month in southern California.

The northern California Cryofeast was held that same August weekend, and it was well-attended. More than fifty people came to the party, to hear a presentation and to ask questions about the policies and procedures of Alcor. Most people were interested in recent technical developments and our research plans, and tours were given of the new transport vehicle. Two additional Cryofeasts will be held

this month, the first in Florida on September 17 and the second in southern California on September 25. Contact Jennifer Chapman ) for more information.

We are also sad to announce the resignation of our Florida paramedics last month. Todd Soard and his group have submitted their resignation from our emergency response team. Though this leaves a gap in our capability, we intend to continue providing training in the area to Alcor members interested in assisting with transport procedures, to maintain a stabilization kit in the area at another location, and to continue our outreach efforts to medical professionals in all regions. [TJ]

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#### Hurricane Katrina

We were a little worried about two members who live in the Gulf area, but we have been able to contact them both and establish that they are alive and well. It took several days to reach them, and we're taking this opportunity to encourage members to call Alcor if they are ever in an affected area like this. [TJ]

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#### Announcing Alcor United

Alcor members now have a forum where they can meet and chat with other members. Please visit [www.alcorunited.org](http://www.alcorunited.org), an Internet forum created by and for Alcor members. Created and moderated by James Conaway, a nine-year member of Alcor. "I have two main goals for the forum. (1) Create an easy-to-reach meeting place for Alcor members to share experiences, thoughts and ideas. (2) Introduce the world and potential new members to Alcor's community and culture."

"The forum is a community building project. The categories of discussion range from philosophy and technology to general questions about cryonics and Alcor. Users are required to register to post in the majority of the forums, but I have added an anonymous forum for those who wish to remain anonymous."

"I felt a need recently to talk with other Alcor members and could not find an easy way to do so. I know from attending Alcor events that we have a large group of good people. We need more opportunities to connect with each other so that we can strengthen our community." [Submitted by James Conaway/JC]

[www.alcorunited.org](http://www.alcorunited.org)

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#### Membership Statistics

On August 31, 2005, Alcor had 773 members on its Emergency Responsibility List and 69 patients in its care. Ten memberships were approved during this month, one membership

was cancelled, two were reinstated, and one member was cryopreserved. Overall, there was a net gain of ten members this month. We have an average net gain of 7.5 members per month, which compares favorably to the average net gain of 4.3 members per month last year.

At the end of this month, Alcor had 59 applicants for membership. There was a net loss of fifteen applicants with twelve membership approvals, three incoming applicants, and five people withdrawing from the application process.

During the month of August, 121 information packs were distributed. Of those, 101 were mailed, and 20 were handed to facility tour participants. Our average for 2005 has grown to 107 per month, compared to 50 in 2004. We also had 768 subscribers to the Alcor News, as of the August issue release date. [DC]

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#### Employment Opportunities

Have you ever thought about joining the Alcor team? We have immediate needs for licensed Paramedics, Emergency Medical Technicians, Registered Nurses, Lab Technicians and more to join our nationwide Transport Team. Participation would be on a contractual basis.

You'll be given cryonics training that will enable you to participate in our patient rescue and transport cases. Licensed professionals do not have to be Alcor members to work with us. We welcome your expertise and interest. If you're interested, send your resume to:

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#### Next Board Meeting

The next Board meeting is scheduled for Saturday, October 1, 2005, at 11:00 AM (MST).

Board meetings are typically held on the first Saturday of the month at the Alcor facility (7895 East Acoma Drive in Scottsdale, AZ). Members and the public are encouraged to attend.

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End of Alcor News bulletin #43 dated September 21, 2005.  
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