Alcor News

Your source for insider's info July 2006, #53

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Authors This Issue: Jennifer Chapman [JC], Diane Cremeens [DC], Tanya Jones [TJ], Sergey Sheleg [SSH], Steve Van Sickle [SVS], Brian Wowk [BW].

- REGISTER TODAY for the 6th Alcor Conference: An Inside Look at the Science and Medicine of Tomorrow

hazel eye

Registration is now open for the 6th Alcor Conference being held at the Scottsdale Marriott in Arizona from October 6-8. The early rate of $295 is only in effect for a few more weeks! Register by August 1. Visit www.alcor.org to register. Check the website regularly for full conference details and updates. [JC]

REGISTER NOW

- Robert A. Freitas Jr. Research Grant

In Cryonics Magazine Spring 2006, there was an article about the theoretical engineering work on nanomedicine being conducted by Robert A. Freitas Jr., which was supported in part by a grant from Alcor in 2004. The Alcor Board of Directors is pleased to announce that it has voted to make another $20,000 grant to Dr. Freitas. Dr. Freitas is doing work that is directly related to the problem of repairing and reviving Alcor's most damaged patients. While this is still in the very early stages, Alcor feels a small investment now can make a big difference later. You can learn more and read a free copy of the first two

Alcor Welcomes Intern Chana Williford

Chana

Chana Williford will be working as an intern at Alcor for a few months to build a whole body vitrification laboratory. Chana attends school in Texas and has a B.S. in Psychology, a M.S. in Cognition and Neuroscience and is working towards her Ph.D. in Neurophysiology at the University of Texas at Dallas. She has taught there as an assistant instructor in neuroscience lab methods and has worked as a research assistant in a variety of laboratory environments. She will utilize her experience conducting experiments and writing supporting documentation to establish Alcor's lab.

volumes of Dr. Freitas' multipart book "Nanomedicine" by visiting www.nanomedicine.com. [SVS]

- Vitrification Rediscovered?

Alcor has received many questions about a press release issued by the American Chemical Society (ACS) entitled, "Slow-frozen people, latest research supports possibility of cryopreservation." The press release, which received significant media attention when United Press International (UPI) picked up the story, was based on a scientific paper by Anatoli Bogdan of the University of Helsinki that appeared in the July 6th issue of the ACS Journal of Physical Chemistry B. The paper described vitrification of microscopic droplets of water using sulfuric acid(!) as a cryoprotectant. While the paper contains some interesting technical observations, the "breakthrough" announced in the press release was merely a restatement of the physical principles of ice avoidance by vitrification as already known and used in cryobiology for decades. Alcor itself has been using "glassy water" or "low-density amorphous ice" (aka vitrification) to avoid physical damage from ice during brain cryopreservation since the turn of the century.

Even if the idea of vitrification isn't new, it is still gratifying to see it thrust into public awareness, and its relevance to cryonics recognized. In the press release, Dr. Bodgan said, "It may seem fantastic, but the fact that in aqueous solution, [the] water component can be slowly supercooled to the glassy state and warmed back without the crystallization implies that, in principle, if the suitable cryoprotectant is created, cells in plants and living matter could withstand a large supercooling and survive." We couldn't agree more. With continuing progress in reducing toxicity of cryoprotectants used for vitrification, we expect that it will be possible to reversibly vitrify larger and larger organs in years to come, and perhaps eventually the whole human body. [BW]

Click here for a simple explanation of vitrification

- Research Update

Repairs are completed on Alcor's differential scanning calorimeter (DSC-7), and the software necessary to operate the device has been purchased. This unit will be used in nucleation mapping of the M22 cryoprotectant to determine the temperatures and cooling/warming rates that cause ice to form. The Planer, a controlled-rate freezer, has also been repaired. This is used for carefully controlling the temperature of biological samples and is important to upcoming research.

Setup of Alcor's research library has begun. With the recent acquisition of new journal subscriptions and a

:: jennifer@alcor.org
:: http://www.alcor.org

:: 877-462-5267

general lack of accessibility when it comes to books and magazines, the useful materials needed to be consolidated in one place.

This month has been a busy one for improvements in both research and clinical response. The remote stabilization kits which Alcor takes into the field when responding to emergencies have been reorganized to streamline them considerably. These kits are also used during training sessions and will be easier to use ease in training demonstrations.

Dr. Sergey Sheleg, Senior Research Scientist, is discussing experimental details with scientists at 21st Century Medicine in Rancho Cucamonga, CA. He obtained the M22 fixative to repeat his M22 brain vitrification experiments and obtain electron microscopy images of the vitrified brain. Dr. Sheleg also worked with Dr. Stephen Coons (Barrow Neurological Institute, Phoenix, AZ) on a manuscript dealing with morphological changes in neurons during prolonged brain normothermic anoxia. [TJ, SSH]

- Training Dates: Florida & Texas

Florida: July 22 & 23 at Suspended Animation Inc in Boynton Beach

Texas: September 23 & 24 at the home of an Alcor member in Austin

Both training sessions will be from 8am-5pm on the above weekends followed by a Sunday evening party for local members and supporters who have sent a RSVP.

Alcor training sessions are given throughout the year in a variety of locations for the purpose of training individuals to perform cryopreservation stabilization and transport procedures. Following training, you will become a member of the Regional Transport Team in your area and may be contacted if an Alcor member needs help.

Training sessions are attended by one or more Alcor personnel and offer an introduction to biohazard and safety protocols, advanced airway management, cardiopulmonary support and blood washout procedures. Training also includes introductions to negotiating with medical personnel, families and medical examiners or coroners.

Local medical professionals and members of Alcor or other cryonics organizations are eligible to attend. There is no charge for attendance but each person is responsible for their own travel and hotel expenses.

Please email Michelle Fry (michelle@alcor.org) if you would like to attend either to become certified or just to observe. [JC]

- Liquid Nitrogen Sensors

General maintenance has been performed on the liquid nitrogen level sensors on all patient care dewars. [SVS]

- Marketing & Media

Tanya Jones and David Pizer were interviewed for an article published on the front page of the Tuesday, July 4th issue of the Scottsdale Tribune. The article offered general information about cryonics and Alcor. [JC]

See Recent News Coverage of Alcor

- 800 Members Strong

On June 30, 2006, Alcor had 800 members on its Emergency Responsibility List. Six memberships were approved during this month, no memberships were reinstated, one membership was cancelled and no members were cryopreserved. Overall, there was a net gain of five members this month. Join Alcor in celebrating this milestone. [DC]

- Cryonics Magazine

Do you have an idea for Cryonics magazine? Are you interested in publishing an advertisement? Contact the editor: jennifer@alcor.org

- Next Board Meeting

The next Board meeting is scheduled for Saturday, August 5, 2006, 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.

- Employment Opportunities

Have you ever thought about joining the Alcor team? We have opportunities for licensed Paramedics, Emergency Medical Technicians, Registered Nurses, Lab Technicians and more to join our nationwide Transport Team. Participation is on a contractual basis. You'll be given cryonics training enabling you to participate in our patient rescue and transport cases. Licensed professionals do not have to be Alcor members to join our team. We welcome your expertise and interest. Send your resume to:

employment@alcor.org

- Alcor United

Alcor United

Alcor members have a new forum where they can meet and chat with other members. Get to know other cryonics supporters in your area and around the world by visiting Alcor United (www.alcorunited.org).

End of Alcor News bulletin #53 dated July 18, 2006.

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Alcor Life Extension Foundation | 7895 E. Acoma Dr. #110 | Scottsdale | AZ | 85260