

A History of Cryonics

By Ben Best

Continued from the last issue

For 26 years — from the time of its inception until 1998 — the President of Trans Time was Art Quaife. The name "Trans Time" was inspired by Trans World Airlines, which was then a very prominent airline. Also active in Trans Time was Paul Segall, a man who had been an active member of the Cryonics Society of New York. Segall obtained a PhD from the University of California at Berkeley, studying the life-extending effects of tryptophan deprivation. He wrote a book on life extension (which included a section on cryonics) entitled LIVING LONGER, GROWING YOUNGER. He founded a BioTech company called BioTime, which sells bloodreplacement products. In 2003 Segall deanimated due to an aortic hemorrhage. He was straight-frozen because his Trans Time associates didn't think he could be perfused. The only other cryonics patient at Trans Time is the brain of Luna Wilson, the murdered teenage daughter of Robert Anton Wilson.

Aside from Trans Time, the other three cryonics organizations in the world which are storing human patients in liquid nitrogen are the Alcor Life Extension Foundation (founded in 1972 by Fred and Linda Chamberlain), the Cryonics Institute (founded in 1976 by Robert Ettinger), and KrioRus (located near Moscow in Russia, founded in 2006).

Fred and Linda Chamberlain had been extremely active in the Cryonics Society of California until 1971 when they became distrustful of Robert Nelson because of (among other reasons) Nelson's refusal to allow them to see where the organization's patients were being stored. In 1972 the Chamberlains founded Alcor, named after a star in the Big Dipper used in ancient times as a test of visual acuity. Alcor's first cryonics patient was Fred Chamberlain's father who, in 1976, became the world's first "neuro" (head-only) cryonics patient. (Two-thirds of Alcor patients are currently "neuros"). Trans Time provided cryostorage for Alcor until Alcor acquired its own storage capability in 1982.

After 1976 the Chamberlains encouraged others to run Alcor, beginning with a Los Angeles physician, who became Alcor President. The Chamberlains moved to Lake Tahoe, Nevada where they engaged in rental as well as property management and held annual Life Extension Festivals until 1986. They had to pay hefty legal fees to avoid being dragged into the Chatsworth lawsuits, a fact that increased their dislike of Robert Nelson. In 1997 they returned to Alcor when Fred became President and Linda was placed in charge of delivering cryonics service. Fred and Linda started two companies (Cells4Life and BioTransport) associated with Alcor, assuming responsibility for all unsecured debt of those companies. Financial disaster and an acrimonious dispute with Alcor management led to Fred and Linda leaving Alcor in 2001, file for bankruptcy and eventually join the Cryonics Institute.

Saul Kent, one of the founders of the Cryonics Society of New York, became one of Alcor's strongest supporters. He was a close associate of Pearson & Shaw, authors of the 1982 best-selling book LIFE EXTENSION. Pearson & Shaw were flooded with mail as a result of their many media appearances, and they gave the mail to Saul Kent. Kent used that mail to create a mailing list for a new mail-order business he created for selling supplements: the Life Extension Foundation (LEF). Millions of dollars earned from LEF have not only helped build Alcor, but have created and supported a company doing cryobiological research (21st Century Medicine), a company doing anti-ischemia research (Critical Care Research), and a company developing the means to apply the research to standby and transport cryonics procedures (Suspended Animation, Inc).

In December 1987 Kent brought his terminally ill mother (**Dora Kent**) into the Alcor facility where she deanimated. The body (without the head) was given to the local coroner (Dora Kent was a "neuro"). The coroner issued a death certificate which gave death as due to natural causes. Barbiturate had been given to Dora Kent after legal death to slow brain metabolism. The coroner's office did not understand that circulation was artificially restarted after legal death, which distributed the barbiturate throughout the body.

After the autopsy, the coroner's office changed the cause of death on the death certificate to homicide. In January 1988 Alcor was raided by coroner's deputies, a SWAT team, and UCLA police. The Alcor staff was taken to the police station in handcuffs and the Alcor facility was ransacked, with computers and records being seized. The coroner's office wanted to seize Dora Kent's head for autopsy, but the head had been removed from the Alcor facility and taken to a location that was never disclosed. Alcor later sued for false arrest and for illegal seizures, winning both court cases. (See Dora Kent: Questions and Answers)

Growth in Alcor membership was fairly slow and linear until the mid-1980s, following which there was a sharp increase in growth. Ironically, publicity surrounding the Dora Kent case is often cited as one of the reasons for the growth acceleration. Another reason often cited is the 1986 publication of ENGINES OF CREATION, a seminal book about nanotechnology which contained an entire chapter devoted to cryonics (the possibility that nanomachines could repair freezing damage). Hypothermic dog experiments associated with cryonics were also publicized in the mid-1980s. But the Cryonics Institute did not experience a growth spurt until the advent of the internet in the 1990s. The American Cryonics Society does not publish membership statistics.

Robert Ettinger, Saul Kent and Mike Darwin are arguably the three individuals who have had the most powerful impact on the history of cryonics. Having experimented with the effects of cold on organisms from the time he was a child, Darwin learned of cryonics at the Indiana State Science Fair in 1968. He was able to spend summers at the Cryonics Society of New York (living with Curtis Henderson). Darwin was given the responsibility of perfusing cryonics patients at the age of 17 in recognition of his technical skills.

Born "Michael Federowicz", Mike chose to use his high school nickname "Darwin" as a cryonics surname when he began his career as a kidney dialysis technician. He had been given his nickname as a result of being known at school for arguing for evolution, against creationism. He is widely known in cryonics as "Mike Darwin", although his legal surname remains Federowicz.

Not long after Alcor was founded, Darwin moved to California at the invitation of Fred and Linda Chamberlain. He spent a year as the world's first full-time dedicated cryonics researcher until funding ran out. Returning to Indiana, Darwin (along with Steve Bridge) created a new cryonics organization that accumulated considerable equipment and technical capability.

In 1981 Darwin moved back to California, largely because of his desire to work with Jerry Leaf. In 1982 the Indiana organization merged with Alcor, and in 1983 Darwin was made President of Alcor. In California Darwin, Leaf and biochemist Hugh Hixon (who has considerable engineering skill) developed a blood substitute capable of sustaining life in dogs for at least 4 hours at or below 9°C. Leaf and Darwin had some nasty confrontations with members of the Society for Cryobiology over that organization's 1985 refusal to publish their research. The Society for Cryobiology adopted a bylaw that prohibited cryonicists from belonging to the organization. Mike Darwin later wrote a summary of the conflicts between cryonicists and cryobiologists under the title Cold War. Similar experiments were done by Paul Segall and his associates, which generated a great deal of favorable media exposure for cryonics.

In 1988 Carlos Mondragon replaced Mike Darwin as Alcor President because Mondragon proved to be more capable of handling the stresses of the Dora Kent case. Darwin has vast medical knowledge (especially as it applies to cryonics), and possesses exceptional technical skills. He is a prolific and lucid writer — much of the material in the Alcor website library was written by Mike Darwin. Darwin worked as Alcor's Research Director from 1988 to 1992, during which time he developed a Transport Technician course in which he trained Alcor Members in the technical skills required to deliver the initial phases of cryonics service.

For undisclosed reasons, Darwin left Alcor in 1992, much to the distress of many Alcor Members who regarded Mike Darwin as by far the person in the world most capable of delivering competent cryonics technical service. In 1993 a new cryonics organization called CryoCare Foundation was created, largely so that people could benefit from Darwin's technical skills. Another strongly disputed matter was the proposed move of Alcor from California to Arizona (implemented in February 1994).

About 50 Alcor Members left Alcor to join and form CryoCare. Darwin delivered standby, transport and perfusion services as a subcontractor to CryoCare and the American Cryonics Society (ACS). Cryostorage services were contracted to CryoCare and ACS by Paul Wakfer. Darwin's company was called BioPreservation and Wakfer's company was called CryoSpan. Eventually, serious personality conflicts developed between Darwin and Wakfer. In 1999 Darwin stopped providing service to CryoCare and Wakfer turned CryoSpan over to Saul Kent. Kent then refused to accept additional cryonics patients at CryoSpan, and was determined to end CryoSpan in a way that would not harm the cryonics patients being stored there.

I (Ben Best) had been CryoCare Secretary, and became President of CryoCare in 1999 in an attempt to arrange alternate service providers for CryoCare. The Cryonics Institute agreed to provide cryostorage. Various contractors were found to provide the other services, but eventually CryoCare could not be sustained. In 2003 I became President of the Cryonics Institute. I assisted with the moving of CryoSpan's two CryoCare patients to Alcor and CryoSpan's ten ACS patients to the Cryonics Institute.

Mike Darwin continued to work as a researcher at Saul Kent's company Critical Care Research (CCR) until 2001. Darwin's most notable accomplishment at CCR was his role in developing methods to sustain dogs without neurological damage following 17 minutes of warm ischemia. Undisclosed conflicts with CCR management caused Darwin to leave CCR in 2001. He worked briefly with Alcor and Suspended Animation, and later did consulting work for the Cryonics Institute. But for the most part Darwin has been distanced from cryonics organizations, which many regard as a frustrating loss of a valuable resource for cryonics.

The history of the Cryonics Institute (CI) has been less tumultuous than that of Alcor. CI has had only two Presidents: Robert Ettinger from April 1976 to September 2003, and Ben Best thereafter. Robert Ettinger decided to build fiberglass cryostats rather than buy dewars because CI's Detroit facility was too small for dewars. In 1994 CI acquired the Erfurt-Runkel Building in Clinton Township (a suburb northeast of Detroit) for about \$300,000. This is roughly the same amount of money as had been bequeathed to CI by CI Member Jack Erfurt (who had deanimated in 1992). Erfurt's wife (Andrea Foote who deanimated in 1995) also bequeathed \$300,000 to CI. Andy Zawacki, nephew of Connie Ettinger (wife of Robert Ettinger's son David), built a ten-person cryostat in the new facility. Fourteen patients were moved from the old Detroit facility to the new Cryonics Institute facility. CI Facility Manager Andy Zawacki is a man of many talents. He has been a CI employee for over 20 years, handling office work (mostly Member sign-ups and contracts), building maintenance and equipment fabrication.

Throughout most of the history of cryonics glycerol has been the cryoprotectant used to perfuse cryonics patients. Glycerol reduces, but does not eliminate, ice formation. In the late 1990s research conducted at 21st Century Medicine and at UCLA under the direction of 21st Century Medicine confirmed that ice formation in brain tissue could be completely eliminated by a judiciously chosen vitrification mixture of cryoprotectants. In 2001 Alcor began vitrification perfusion with a cryoprotectant mixture called B2C, and not long thereafter adopted a better mixture called M22. At the Cryonics Institute a vitrification mixture called CI-VM-1 was developed by CI staff cryobiologist Dr. Yuri Pichugin (who was employed at CI from 2001 to 2007). The first CI cryonics patient was vitrified in 2005.

In 2002 Alcor cryopreserved baseball legend Ted Williams. Two of the Williams children attested that their father wanted to be cryopreserved, but a third child protested bitterly. Journalists at Sports Illustrated wrote a sensationalistic expose of Alcor based on

information supplied to them by Alcor employee Larry Johnson, who had surreptitiously tape-recorded many conversations in the facility. The ensuing media circus led to some terrible moves by politicians to incapacitate cryonics organizations. In Arizona, state representative Bob Stump attempted to put Alcor under the control of the Funeral Board. The Arizona Funeral Board Director told the New York Times "These companies need to be regulated or deregulated out of business". Alcor fought hard, and in 2004 the legislation was withdrawn. Alcor hired a full-time lobbyist to watch after their interests in the Arizona legislature. Although the Cryonics Institute had not been involved in the Ted Williams case, the State of Michigan placed the organization under a "Cease and Desist" order for six months, ultimately classifying and regulating the Cryonics Institute as a cemetery in 2004.

In 2002 Suspended Animation, Inc (SA) was created to do research on improved delivery of cryonics services, and to provide those services to other cryonics organizations. In 2003 SA perfused a cryonics patient for the American Cryonics Society, and the patient was stored at the Cryonics Institute. Alcor has long offered standby and transport services to its Members as an integral part of Membership, but the Cryonics Institute (CI) had not done so. In 2005 the CI Board of Directors approved contracts with SA which would allow CI Members the option of receiving SA standby and transport if they so chose. By 2008, about 50 of the roughly 300 CI Members who had arrangements for cryopreservation services from CI had opted to also have standby and transport from SA.

A Norwegian ACS Member named Trygve Bauge brought his deceased grandfather to the United States and stored the body at Trans Time from 1990 to 1993. Bauge then transported his grandfather to Nederland, Colorado in dry ice with the intention of starting his own cryonics company. But Bauge was deported back to Norway and the story of his grandfather created a media circus. The town outlawed cryonics, but had to "grandfather the grandfather" who has remained there on dry ice. After a "cooling-off period" locals turned the publicity to their advantage by creating an annual Frozen Dead Guy Days festival which features coffin races, snow sculptures, etc. Many cryonicists insist that dry ice is not cold enough for long-term cryopreservation and that the Nederland festival is negative publicity for cryonics.

In 2006 the first cryonics organization to offer cryonics services outside of the United States was created in Russia. KrioRus has a facility in a Moscow suburb where a few cryonics patients are being stored in liquid nitrogen.

IMMORTALIST SOCIETY FINANCIAL REPORT-- 9/01/07-08/31/08

	Debits	Credits	Totals
GENERAL ACCOUNT			
Receipts			
General		\$7405.57	
Total			\$7405.57
Disbursements			
Postage	\$3680.97		
Office, Copier Supplies & Misc.	138.52		
Newsletter (Production)	6585.02		
Bank Service Charges	72.00		
EFT Fees	246.43		
Covers	1485.05		
Total			(12,207.99)
SPECIAL ACCOUNTS			
Research Fund			
Receipts		10,508.87	
Disbursements	1856.45		
NET			8652.52
GRAND TOTALS	14064.44	17,914.54	
Ending Balance 08/31/08			33,420.16
Vendor Credit Balances			72.00
TOTAL FINANCIAL ASSETS 08/31/08			33,492.16