

Afterword by Aschwin de Wolf

In 2002 I made whole-body cryopreservation arrangements with Alcor. It seemed evident to me that cryonics was a field that would benefit from informed, active, member involvement. Not one to sit idle on the sidelines, I welcomed the opportunity to participate in a week-long cryonics training at a retreat in Arizona during 2003.

I am not sure if I would be writing an introduction to this manual today if I had not attended this event because it allowed me to interact with Charles Platt, the organizer of the meeting and co-author of this manual. I cannot claim that I understood the rationale or details of all the procedures that we were taught (one must remember that these were the days when volunteers were taught how use an air-portable perfusion circuit to conduct field blood washout) but I must have made enough of an impression on Charles for him to consider me a potential staff member when he was tasked with re-booting the cryonics service provider Suspended Animation in 2004. In the summer of 2004 I moved to Florida to be employed in cryonics.

When I started working at Suspended Animation the organization did not have detailed contracts in place to perform stabilization procedures for the major cryonics organizations. Consequently, the emphasis was mostly on development of cryonics response capabilities and staff education. What does education entail in a cryonics organization? Unlike in general medicine, one cannot just pick up a “cryonics textbook” and attend classes for the practical stuff, at least not in the commonly understood meaning of those words. So, I studied old Alcor procedures manuals, training manuals, Ben Best’s online cryonics writings, and engaged in extensive conversations with Michael Darwin and noted cryobiologists to deepen and refine my knowledge.

Another situation that favored (or I should say, forced) me to familiarize myself with all pertinent scientific, technical, and logistical issues of cryonics was the addition and departure of staff members at Suspended Animation. In a relatively short period of time I had to familiarize myself with topics as

diverse as standby kit contents and maintenance, medications documentation, extracorporeal circuit design, and mixing organ preservation- and vitrification solutions.

There is a thin line between internal documentation and publication and soon I found myself writing articles about cryonics procedures for cryonics magazines and websites. I often used these public articles as exercises to articulate the current state of knowledge about a topic or identify areas where more research and development is necessary. I did not claim (and still do not claim) to be an “expert” in these areas but the extensive research and writing involved primed me well for collaborating on a manual such as the one you are reading now.

In 2007, I moved to Phoenix, Arizona and become further involved in Alcor’s operations while still doing contract work for Suspended Animation. One proposal under discussion with Suspended Animation was the writing of a comprehensive procedures manual. When an Alcor official heard about this potential project, Charles Platt and I were approached to submit a detailed proposal for Alcor instead.

Work on the manual started in 2008 and has gone through periods of rapid, focused activity, and periods of slumber, depending on other obligations of the authors and the Editor. What kept all of us motivated is the recognition that there is no up-to-date comprehensive cryonics procedures manual and topics such as vitrification, cryoprotectant circuit design, and long-term maintenance have not been documented in manual form at all. Its history and methods could only be reconstructed through detailed study of in-house SOP’s so there is clear need a manual such as this. *Human Cryopreservation Procedures* aims to provide the rationale, history, and technical aspects of Alcor’s operations, with some references also to Cryonics Institute.

With a project of this scope it is important to articulate what it is and what it not is. While this manual delves into the scientific rationale of cryonics procedures more extensively than the older Alcor training manuals, these issues are often only discussed to provide enough contact to effectively communicate and monitor them. For example, you will not find technical reviews of the molecular mechanism of cryoprotectant toxicity. You will also not find specific tubing assembly specifications, or how prevent contamination

of in-house mixed perfusates. As such, this manual is a bridge between scientific research that provides the rationale for cryonics and detailed SOP's to implement the procedures documented in this book.

We do not claim to cover every conceivable procedure in detail. Our general approach has been to divide the labor between us based on how comfortable one of us felt in drafting a specific chapter. There are chapters where one of us was specifically involved in developing the technologies in question and others where one of us just happened to have a stronger interest in the topic. The results have been further fact-checked by researchers and practitioners of cryonics, under the supervision of a highly-knowledge and experienced Editor. We aim for this manual to be an Alcor-supervised project that continues to be revised and expanded when new facts are uncovered, or technologies are changed.

Most cryonics procedures and training manuals were written before the rise of the Internet or when this technology was still in its infancy. As a result, these manuals are now archived as historical materials on the Alcor website. In the case of our manual we aim to create a dynamic online document which will be modified, expanded, or corrected as new technologies are introduced or new information becomes available. As such we hope that our manual will become a resource for exiting and future Alcor staff members and educated members.

When I accepted the assignment to co-write this manual I had one concern, and upon completion of the project it is important to articulate it: There is still a wide gap between the quality of cryopreservation that can be achieved in the lab and what we can reasonably expect in a typical cryonics case. What sets this manual apart from some similar efforts in the past is that there are many sections in which we discuss emerging technologies and protocols to further close the gap between the ideal of medical biostasis and current Alcor procedures. Closing that gap and seeking continuous improvement in the delivery of cryonics services is only possible if the organization implements a comprehensive data collection and quality control program. To advance this goal this manual includes two additional appendices on the writing of case reports and quality control in cryonics. Only if Alcor (or any credible cryonics organization) implements most of the suggestions

contained in these documents and creates an internal culture where curiosity, feedback and excellence is nurtured, will it be possible to fully benefit from the information in this manual.

Aschwin de Wolf
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