THE AMERICAN ACADEMY OF CARDIOVASCULAR PERFUSION 515A EAST MAIN STREET ANNVILLE, PA 17003 (717) 867-1485 OFFICEAACP@AOL.COM HTTP://WWW.THEAACP.COM

The Academy Newsletter

Message from the President ...

The stars at night are big and bright

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Deep in the heart of Texas. -Perry Como 1942

Now that I have your attention and placed a tune in your head for the next few hours – let's chat about the American Academy of Cardiovascular Perfusion! The AACP committees, council and executives have been brainstorming and collaborating to plan for an awesome live and in-person meeting at Hyatt Regency Lost Pines Resort & Spa - Lost Pines, Texas this coming February 9-12, 2022. We take the health and safety of our membership, sponsors and support team very seriously so we will encourage social distancing and utilize various modes of electronic media throughout the event.

The location of this event is ideal for its easy access to the city of Austin while offering a low-key, wilderness vibe in an uncrowded setting. The hotel description on TripAdvisor calls it "a memorable Texas wilderness escape on 405 acres of scenic terrain. The resort features 491 guest rooms, more than 60,000 square feet of indoor meeting space and over 240,000 square feet of outdoor function space with pavilions and an amphitheater". I don't know about you, but I could sure use some time in a place like that!

The program for the 2022 event is coming together based on feedback we received from the 2021 meeting. We are very excited to offer a repeat of the multidisciplinary ECMO day to showcase the latest equipment, techniques and lessons learned from legends in the field through the past, unprecedented 18 months. Please spread the word about this feature with your ECMO colleagues early and often! Throughout the entire meeting, there will be ample content focused on you, the person and the perfusionist – and how to make the most of every day as that balance plays out.

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Fall 2021

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Bill Riley President, AACP

As I begin to wrap up my stint as the latest AACP President I reflect fondly on my many memories of inspiration, camaraderie and laughter since my first Academy meeting in 2006. As my career has taken me all over Boston with a couple stints in industry (to keep things interesting) the one constant I have had is the AACP. I encourage all existing and "seasoned" members to join us in Texas to reacquaint ourselves to each other and this society that helped to bring us all together – while helping to welcome new members into the folds of this truly amazing organization.

Be well, be safe, and take good care of each other, Bill



Dick Adams 2015 AACP Meeting San Antonio, TX

By **Mark Kurusz**, CCP Emeritus Austin, Texas

In Memoriam Richard Adams

For the American Academy seminar in 1981 in San Francisco, President Jeri Dobbs needed to find a person with the skills who could make a record of transcription of the discussions after oral presentations at the meeting. This was really an experiment because it had never been done before at a perfusion meeting. The leaders at that time thought that in addition to the manuscripts that would be published in our annual Proceedings, a dialogue between the presenter and attendees on what they had just heard would add important perspectives for readers. Unlike some of the more established surgical meetings, there was no scripted order for Academy meeting discussants to approach floor microphones and make comments or question the presenter. This no doubt added to the stress for presenters—not only had they been selected to present their work before a large audience of fellow perfusionists, but they would now be faced with having to respond to some often-pointed questions when clarifications might be needed on what they had just presented. It was not peer review in the traditional sense, but, in fact, it was peer review played out "live" and then later, after some minor editing, the discussions would be archived in the Proceedings AACP.

Dick Adams was an experienced court reporter based in San Rafael, California, and later in Willard, Missouri. Some of his work involved longshore labor hearings and meetings, and he had little experience with sometimes obscure language used in the medical field, let alone knowing who perfusionists were and what they did. If Dick was challenged by this new assignment, it never showed. For the Academy, it was a fortuitous engagement for which Dick produced verbatim transcripts of what was said, including the "ums", "you know", verb-subject mismatches, and other conversational slang. The editors of the *Proceedings* provided the correct spelling of words if they were unfamiliar to Dick who typed them phonetically when he was unsure, then the minor misspeaks were edited out of the transcripts for typesetting, and the discussions following the published manuscripts proved that intelligent questions and comments could be delivered *ad lib* by perfusionists. The experiment worked and added credibility to our profession. Dick also produced long transcripts of panel discussions with multiple speakers and worked during the sometimes fractious council and membership meetings. His work was outstanding, and because of Dick we had irrefutable and invaluable records of what had transpired at those early Academy meetings.

For this alone, we now remember Dick, who passed away in late August this year. He attended our meetings every year from 1981 until 2015 when he began to slow down from all the travel, eventually retiring in 2020. For his dedication to our Academy, the active membership unanimously voted Dick an Honorary Member in 1987. For 34 years, Dick was a keen observer of our members and their personalities, and he would sometimes share his thoughts in private. Being a former Marine and Vietnam veteran, he had seen much, which many of us never experienced, so watching the aspirations and achievements in our organization probably was good preparation for him at the Academy meetings. He would come to our formal dinner each year wearing a tuxedo de rigueur and proudly displayed his Academy medallion hanging from a ribbon around his neck. Dick never injected himself into our discussions except when a person who was speaking failed to identify him- or herself and where they were from for the record. Otherwise, he was always there, faithfully and quietly recording what was being said.

In 1989, the Academy meeting was back in San Francisco, and Dick and his wife, Janet, invited a few of us to his home a short drive across the Golden Gate Bridge for a visit where we met his two boys, Sam, and Matt. They had a big game room with a pinball machine, and we listened to pop music, enjoyed a few beers, and, in short, had a wonderful time. I think Dick saw something unique in us as a profession, and we certainly were the recipients of his dedication to us and his family's warm hospitality that evening long ago.

We are left with only memories now and the printed words in our *Proceedings*. Those are gifts we embrace and are forever grateful when thinking of the good times with Dick.



Kelly Hedlund, MS, CCP

The University of Kansas Health System

HaysMed

Hays, Kansas

REMEMBERING THE GALEN/COBE OPTIFLO BUBBLE OXYGENATOR

Galen Laboratories

Galen Laboratories was founded in Santa Ana, California in 1971 as a medical device company. Initial efforts focused on two key products - a kidney dialyzer and a blood oxygenator. The dialyzer, patented in 1973, was a fanfolded semipermeable membrane housed within a rectangular case (see Figure 1). Starting in 1964, plate-style dialyzers (which the Galen device resembled) were gradually supplanted by the sleek hollow-fiber design. As such, the Galen dialyzer fizzled and was ultimately shelved.

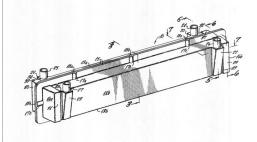


Figure 1. Schematic of the Galen kidney dialyzer developed in 1973.

Development of the Galen blood oxygenator commenced in 1972. Designated the OptiFlo, a 510(k) version of the device was on display at the AmSECT International Conference in Los Angeles in July 1973 (see Figure 2). Full market release occurred in early 1974. During the first 24 months of production, more than 15,000 OptiFlo oxygenators were sold throughout the United States. Included with each new OptiFlo device was an evaluation form that could also serve as a perfusion record (see Figure 3).

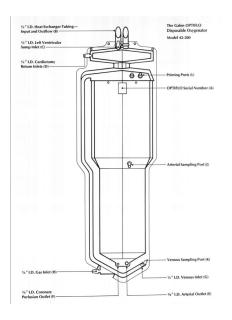


Figure 2. Schematic of the Galen OptiFlo bubble oxygenator developed in 1973.

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Figure 3.Evaluation form packaged with each new Galen OptiFlo oxygenator (note resemblance to early perfusion records).

OptiFlo Description

The OptiFlo featured a radically different look from its contemporary Harvey H-series and Bentley Temptrol oxygenators. For example, once secured in its holder, the OptiFlo stood 3 feet tall (see Figure 4). The totally-visible oxygenating column traversed just one side of the device, ascending to the top of the unit and then emptying into a large polyurethane defoaming chamber. The integral aluminum-coated heat exchanger, located within the arterial reservoir, also served as a space-occupying component. The resulting blood path that surrounded the heat exchanger was just sixty thousandths of an inch thick. Moreover, from a safety and visibility standpoint, a blood volume of just 250 milliliters in the arterial reservoir would rise to a level of nearly 13 inches in height above the outlet. The most significant feature by far was the never-before-seen integrated cardiotomy reservoir with Swank Dacron filter. To clarify, the cardiotomy reservoir could not sequester volume as it was merely a rigid housing (with inlet connectors) for the filter media. This did not pose a problem however, because the arterial reservoir could hold a substantial 3500 milliliters. For users that preferred a separate cardiotomy reservoir as part of their system, an OptiFlo oxygenator without the integrated cardiotomy filter was also manufactured (see Figure 5).

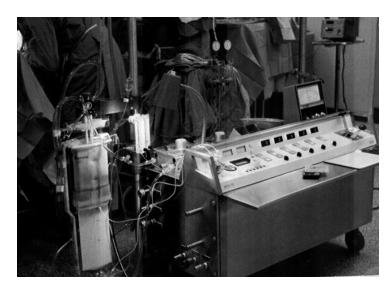
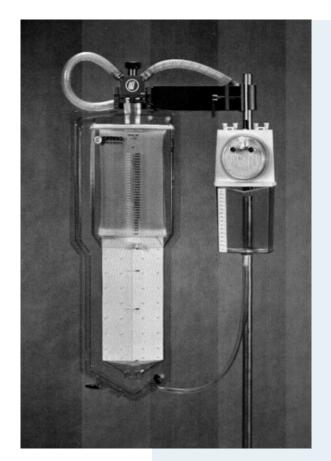


Figure 4.Photo depicting the height of the OptiFlo bubble oxygenator.

Continued on Page #6

Enter COBE Laboratories

In March 1974, COBE Laboratories acquired Galen in a cash advance and stock purchase agreement. For a time, Galen Laboratories was listed as a subsidiary of COBE. By early 1975, all product labeling and advertising material pertaining to the OptiFlo oxygenator had officially been converted to the COBE name. Despite this, the words "Galen OptiFlo" continued to appear in various journal articles until 1979. Bad luck befell the ever-reliable OptiFlo in the fall of 1976 when incidents of over-pressurizing were reported by users. An investigation by COBE revealed a most-hazardous problem, whereby the gas escape cap was cement-welded onto the oxygenator by assemblers in an upside-down position effectively sealing off the vent port. A recall letter was sent to customers instructing them to quarantine all OptiFlo oxygenators in their possession until the units could be inspected by COBE personnel. The recall involved over 50,000 oxygenators worldwide.



Summary

The OptiFlo oxygenator was an ingenious device for two reasons. First, it introduced the perfusion community to cardiotomy filter integration. COBE continued this unique feature in their second generation OptiFlo II oxygenator released in 1978. And secondly, the OptiFlo challenged the tightly-held notion that hard-shell bubble oxygenators had to be concentric in shape. Surely, in these instances, the folks at Galen Laboratories were visionaries and ahead of their time.

References

Reed CC, Clark DK. Cardiopulmonary Perfusion. Houston: Texas Medical Press; 1975:244-245.

Operating Instructions: The Galen OptiFlo Disposable Oxygenator 1974.

Marketing Brochure: The COBE OptiFlo Disposable Oxygenator 1975.

Jeong UG, Davila JC. Experimental Evaluation of the New Galen Disposable Bubble Oxygenator. Henry Ford Hospital Medical Journal. 1974;22:97-100.

FDA Defective Medical Device Recall (T-009-7). COBE OptiFlo Disposable Oxygenator. Filed November 23, 1976.

AmSECT News Vol. V, No. 2 June 1973.

Clark RE, Beauchamp RA, Magrath RA, Brooks JD, Ferguson TB, Weldon CS. Comparison of bubble and membrane oxygenators in short and long perfusions. J Thorac Cardiovasc Surg. 1979;78:655-666.

COBE Laboratories Incorporated Annual Report 1974.

Figure 5. Photo of OptiFlo oxygenator without the integral cardiotomy filter (note separate cardiotomy reservoir to the right).

43rd Annual Seminar of The American Academy of Cardiovascular Perfusion

Hyatt Regency Lost Pines Resort & Spa 575 Hyatt Lost Pines Road Lost Pines, Texas February 9-12, 2022

(Tentative Program)

Wednesday, February 9,	2022					
9:00 AM – 2:00 PM	REGISTRATION					
3:30 PM - 4:00 PM	Opening Business Meeting					
	Fellow, Member, Senior and Honorary Members					
4:00 PM – 7:00 PM	Manufacturers' Breakout Rooms					
Thursday, February 10, 2	022					
7:00 AM	REGISTRATION					
7:00 AM – 8:00 AM	Video Presentations					
8:00 AM – 09:30 AM	Scientific Paper Session					
9:30- AM – 11:30 AM	Fireside Chats					
	Student forum					
	Pediatrics					
	Building your state society-let's learn from each other Everything ECMO: starting, maintaining & growing a program					
	Perfusion accidents					
11:30AM - 1:00PM	Lunch (Historical Videos)					
	Eulicii (Historical Videos)					
1:00 PM – 3:00 PM	Special Scientific Panel Session					
3:00 PM – 3:30PM	Break					
3:30PM – 5:30PM	Special Scientific Panel Session					
06:00PM	Sponsor's Hands-On Workshop & Reception					
Friday, February 11, 2022						
7:00 AM	REGISTRATION					
7:00 AM – 8:00 AM	Video Presentations					
8:00 AM – 9:30 AM	Scientific Paper Session					
9:30- AM – 11:30 AM	Fireside Chats					
	Pump on: the 1st five years, what they didn't teach you in school					
	Pediatric ECMO					
	Myocardial preservation					
	Simulation: high fidelity, low fidelity and everything in between Pediatrics					

11:30AM - 1:00PM	Lunch (Historical Videos)
1:00 PM – 3:00 PM	Special Scientific Panel Session
3:00 PM – 3:30PM	Break
3:30 PM – 5:30 PM	Memorial Session Charles C. Reed Memorial Lecture Thomas G. Wharton Memorial Lecture (William Riley, CCP)
6:30 PM	Induction Dinner All Attendees and Guests
Saturday, February 12, 2 7:00 AM 7:00 AM – 8:00 AM 8:00 AM – 9:30 AM 9:30 AM – 10:00 AM 10:00 AM – 11:30 AM	022 - <i>Multi-disciplinary ECMO Day</i> REGISTRATION Video Presentations Scientific Paper Session Break Special Scientific Panel Session
11:30 AM – 1:00 PM	Lunch (Historical Videos)
1:00 PM – 3:30 PM	Special Scientific Panel Session
3:30 PM – 5:30 PM	Fireside Chats Blood conservation and transfusion triggers Industry and CCP Dealing with stress, finding work/life balance, team building & communication ECMO and VAD: scenarios and transports
5:30 PM	Closing Business Meeting Fellow, Senior and Honorary Members Only

THE ACADEMY TO OFFER LIVE WEBCAST

The American Academy of Cardiovascular Perfusion will again be offering a live webcast of our 2022 Annual Meeting in Austin, Texas. The General Sessions of the meeting and one Fireside Chat each day will be broadcast in high quality streaming video. There will also be an opportunity for attendees to ask questions, thus qualifying for Category I CEUs from the American Board of Cardiovascular Perfusion.

PRE-REGISTRATION FORM

The 2022 Annual Meeting of The American Academy of Cardiovascular Perfusion

MEMBER Registration Fee (<i>includes Induction Dinner</i>) 2022 Annual Dues Guest to Induction Dinner Adult Guest to Workshop	FEE \$445.00 \$155.00 \$100.00 \$ 30.00	Amount	FIRESIDE CHAT REGISTRATION (make your first three choices each day) Thursday Sessions 1) 2) 3)_
NON-MEMBER Registration Fee (<i>includes Induction Dinner</i>) Guest to Induction Dinner Adult Guest to Workshop	FEE \$495.00 \$100.00 \$30.00	Amount	3) Friday Sessions 1) 2)
STUDENT PERFUSIONIST Registration Fee (<i>includes Induction Dinner</i>) Guest to Induction Dinner Adult Guest to Workshop * MUST be a current Student Member of The Academy.	FEE \$100.00* \$100.00 \$30.00	Amount	3) Saturday Sessions 1) 2) 3)
FELLOW or SENIOR MEMBER Registration Fee (<i>includes Induction Dinner</i>) 2022 Annual Dues Guest to Induction Dinner Adult Guest to Workshop	FEE \$445.00 \$180.00 \$100.00 \$ 30.00	Amount	
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E-MAIL ADDRESS			(Required for confirmation)
How long have you been in the perfusion	on field?		
Will you be attending the Induction Din (Dark Suit and Tie Required / Black Tie			ng? YES NO
Please read all instructions and information If you have questions completing this form, please through the hotel directly.			
Total Amount of Payment \$ METHOD VISA/MasterCard #			
Credit card billing address if different from above.			
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Signature			

** There will be a \$40.00 service charge for any check returned for insufficient funds.

INSTRUCTIONS and INFORMATION

o Complete each appropriate section of this form by printing or typing. o All attendees are invited to the Induction Dinner on Friday evening. Attire is dark suit and tie required.

o Members must pay their 2022 Annual Dues along with their registration fees by completing that portion of the form.

o You will receive acknowledgment of your pre-registration by January 17, 2022 --bring it with you to the meeting.

o No pre-registration will be processed after January 14, 2022

o Your receipt and meeting credentials will be available for you at the Pre-Registration desk at the meeting.

o There will be **NO ADMISSION to any Fireside Chat without proper ad**mission credentials.

o If you are joining The Academy with your registration you must:

1) complete appropriate areas of the form;

2) you MUST INCLUDE the membership application form;

3) include the \$25 filing fee;

4) include \$155 for the 2022 Annual Dues;

(Your membership begins with the closing business meeting)

o ONLY VISA/MasterCard/Discover credit cards are accepted.

o The AACP Federal Tax ID Number: 63-0776991 (for hospital use only) o Refund policy: Anyone that is pre-registered for this meeting and is unable to attend will receive a full refund minus \$50.00 for handling, mailing, and processing upon written request before January 14, 2022.

${\rm o}$ Make checks payable to AACP (US dollars). Mail completed preregistration form and check to:

AACP 515A East Main Street Annville, PA 17003

If you are paying by credit card, you can snail mail this form to the address above, scan and email this form to OfficeAACP@aol.com or register online at www.theAACP.com.

IF YOU HAVE QUESTIONS FILLING OUT THIS FORM, PLEASE CON-TACT THE NATIONAL OFFICE - OfficeAACP@aol.com.

There will <u>not</u> be any on-site registration in Austin this year so please pre-register. We have extended the deadline to January 14, 2022.

Proof of a valid COVID-19 vaccination card may be required to pick up your pre-registration envelope and attend the seminar.

Contact Information for Our Sponsoring Partners

BERLIN HEART, INC.

Phone: 281-863-9700 Fax: 281-863-9701 Website: https://www.berlinheart.com/

EDWARDS LIFESCIENCES

Phone:800-424-3278 Website: www.Edwards.com/HemoSphere

FRESENIUS MEDICAL CARE

Phone: 800-405-1321 Website: https://fmcna.com/products/ critical-care/novalung/novalung-ceros

LIVANOVA SORIN GROUP USA, INC.

Phone: 800-221-7943 or 303-467-6517 Fax: 303-467-6375 Website: www.soringroup.com

MEDTRONIC PERFUSION SYSTEMS

Phone: 763-391-9000 Websites: www.medtronic.com www.perfusionsystems.com

SPECTRUM MEDICAL, INC.

Phone: 800-265-2331 Fax: 803-802-1455 Website: www.spectrummedical.com

TERUMO CARDIOVASCULAR SYSTEMS

Phone: 734-663-4145 or 800-521-2818 Fax: 734-663-7981 Website: terumo-cvs.com

Important Academy Dates

The ACADEMY ANNUAL MEETING DEADLINES

ABSTRACT DEADLINE	October 31, 2021
MEMBERSHIP DEADLINE	December 9, 2021
PRE-REGISTRATION	January 14, 2022
2022 ANNUAL MEETING	February 9-12, 2022

Other Meetings

2021 World Heart and Cardiothoracic Surgery Conference

Discovery the Science of the Heart November 19-20, 2021 Bangkok, Thailand https://heart.episirus.org/

2021 World Pediatrics Conference

Current Challenges in Delivering Pediatric and Neonatal Research November 19-20, 2021 Bangkok, Thailand https://pediatrics.episirus.org/

2022 Annual Meeting



Lost Pines, Texas February 9-12, 2022



Our Host Hotel Hyatt Regency Lost Pines Resort & Spa (23 miles outside Austin)

www.hyatt.com > hyatt-regency-lost-pines-resort-and-spa > auslp

Reservations Web-Site: https://www.hyatt.com/en-US/group-booking/AUSLP/G-XN0D

> Single/Double Occupancy: \$239.00 (includes daily resort fee)

Remember to mention that you will be attending the Annual Conference of The American Academy of Cardiovascular Perfusion (AACP). Annual Meeting to include:

Scientific Paper Presentations

Fireside Chats

Special Panel Sessions

Historical Presentations

Manufacturers' Workshops