

ORGANIZED BY:



EUROPEAN CONGENITAL HEART SURGEONS ASSOCIATION

ECHSA
2023

Annual Meeting



20-22
APRIL 2023

EUGENIDES FOUNDATION
ATHENS GREECE

FINAL PROGRAM

Download the official Meeting App

ECHSA
2023
Annual Meeting



Meeting App Download Instructions

Use your device to scan the QR Codes.

Android devices



iOS devices

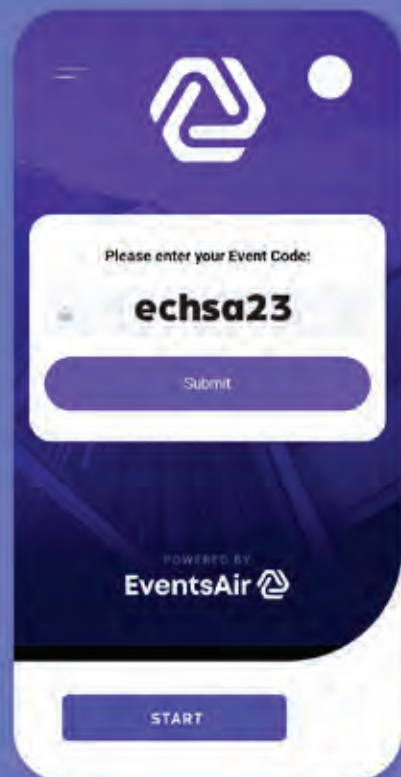


2

Download The Event App
by EventsAIR



When you are prompted for a code upon launching the App, insert **echsa23**. In order to log in, tap the Log In icon and insert your email address and the 4-digit PIN that has been sent to you. The Meeting App will be available about one week before the Meeting.



- p. 2 Welcome Message
- p. 2 2023 Annual Meeting Organizing & Scientific Committee

About ECHSA

- p. 3 ECHSA Aims & Contacts
- p. 3 ECHSA Events
- p. 3 ECHSA Leadership
- p. 4 ECHSA Committees
- p. 5 ECHSA Membership
- p. 5 ECHSA Contributors
- p. 5 ECHSA Congenital Database
- p. 6 ECHSA Multi-Institutional Studies

Meeting Information

- p. 7 About Athens
- p. 8 About the Venue
- p. 9 General Information A-Z
- p. 13 Registration
- p. 14 ECHSA 2023 Abstract Award
- p. 15 Presenter guidelines
- p. 16 Social program

Scientific Program

- p. 17 Overview
- p. 18 Thursday, 20 April 2023
- p. 19 Friday, 21 April 2023
- p. 22 Saturday, 22 April 2023
- p. 17 Poster presentations
- p. 18 Faculty List

Industry Section

- p. 28 Sponsors' acknowledgement
- p. 29 Industry profiles
- p. 38 Venue & Exhibition floorplans



Welcome Message



Dear friends,

On behalf of the Organizing Committee, it is a great honor and privilege to welcome you to the **2023 Annual Meeting of the European Congenital Heart Surgeons Association (ECHSA)**, taking place in **Athens-Greece**, at the **Eugenides Foundation**, on **20-22 April 2023**.

The COVID pandemic has kept us from hosting a physical event since our last Annual Meeting in Sofia in 2019, but now, at long last, time has come to reunite with colleagues and friends.

The scientific program is observing the customary framework of our meetings, combining selected lectures from renowned experts of our specialty with your research and clinical contributions, in the form of oral presentations, and surgical videos. We have also included an Update Course on Pediatric Mechanical Circulatory Support, as well as two special sessions, dedicated to the aortic valve, as well as to CHD challenges.

The Database and Research Committees will give an update on the exciting new developments, that has happened through the past year. The Meeting will be concluded with the ECHSA Business meeting, which our membership can also attend in live streaming.

We welcome you all to Athens and to the ECHSA 2023 Annual Meeting.

On behalf of the Organizing Committee,

Vladimiro Vida

Secretary General
ECHSA 2023 Annual Meeting Chair of the Organizing Committee

George Sarris

ECHSA President
ECHSA 2023 Annual Meeting Local Host

2023 Annual Meeting Organizing & Scientific Committee

Local Host:

George Sarris (Athens, Greece) | ECHSA President

Chair of Scientific Committee:

Vladimiro Vida (Padova, Italy) - ECHSA Secretary General

Members:

Bohdan Maruszewski - ECHSA Past President and Past Database Committee Chair

Jose Fragata - ECHSA Past President

Ilkka Mattila - ECHSA Treasurer

Sertaç Çiçek - ECHSA Board Member

Jürgen Hörer - ECHSA Board Member

Jeffrey Jacobs - ECHSA Board Member

Attilio Lotto - ECHSA Board Member

Rudolf Mair - ECHSA Board Member

Massimo Padalino - ECHSA Board Member





Events

ECHSA organizes its Annual Scientific Meeting each Spring, and may also organize additional specialized courses and seminars. Every 4 years since 2004, ECHSA has been organizing a Joint Meeting with the Congenital Heart Surgeons' Society (www.chss.org), which is ECHSA's "sister" association in the United States.

Traditionally, ECHSA Meetings were open only to the Members of the Association. However, since the 2017 Annual Meeting held in Leicester-UK onwards, all ECHSA Meetings are open to the entire congenital heart scientific community. This creates a unified platform for everyone involved in the care of patients with Congenital Heart Disease to participate and exchange experiences: cardiologists, cardiac surgeons, anesthetists, intensivists, pathologists, researchers, perfusionists, nurses and medical technicians, all are most welcome. The Scientific program includes "best and worst" case presentations and discussions, surgical video sessions, pro and con controversy discussions, advanced clinical research presentations, specialized invited lectures, state-of-the-art symposia and industry workshops. In response to increased demand for virtual educational programs, as the COVID pandemic remains an inhibitory factor for hosting physical events, the ECHSA set up a platform with its Secretariat, CONVIN SA, to host its events for as long as there are related restrictions. The platform, a state-of-the-art experience by itself, offered enhanced interaction opportunities and various branding and placement options. Through this platform, ECHSA has organized its 2021 and 2022 Annual Meetings in a virtual environment. Time has now come for ECHSA to go back on track with live, face to face meetings. The 2023 ECHSA Annual Meeting is thus taking place in Athens, Greece, at the Eugenides Foundation, in full physical format. The event is streamed for registered delegates that were unable to physically attend, as well as for post-viewing by ECHSA membership through the ECHSA website www.echsa.org

Leadership

The business of the Association is taken care by the **Board**, which is elected in the annual general meeting. Operation of the ECHSA Congenital Database and coordination of ECHSA's research projects are handled respectively by the **Database Committee** and the **Research Committee**. Membership and admissions to the Association is supervised by the **Membership Committee**.

Aims & Contacts

The aim of the European Congenital Heart Surgeons Association (www.echsa.org) is to advance surgery for congenital heart defects, to improve the treatment of patients with congenital heart disease in Europe, and by all means promote the research and treatment related directly or indirectly to congenital heart diseases, irrespective of the patient's race, religion, origin, wealth, or other discriminative factors. For realization of this aim, the Association carries on research of surgery for congenital heart diseases, and organizes courses, seminars and conferences for congenital heart disorders. To support these ECHSA activities, the Association receives donations, grants and sponsorships.

ECHSA Association Management Company & Core-PCO



CONVIN S.A.

29 K. Varnali street, 152 33 Chalandri, Athens, Greece
T: +30 210 6833600 (call centre)
F: +30 210 6847700
ECHSA e: secretariat@echsa.org
ECHSA w: www.echsa.org

Meeting e: info-meeting@echsa.org
Meeting w: www.echsa2023.org
Corporate e: info@convin.gr
Corporate w: www.convin.gr

ECHSA Board

President	George Sarris (ATHENS, GREECE)
Secretary General	Vladimiro Vida (PADOVA, ITALY)
Treasurer	Ilkka Mattila (HELSINKI, FINLAND)
Members	Sertaç Çiçek (ISTANBUL, TURKEY) Jürgen Hörer (MUNICH, GERMANY) Jeffrey Jacobs (GAINESVILLE FL, UNITED STATES) Attilio Lotto (LIVERPOOL, UNITED KINGDOM) Rudolf Mair (LINZ, AUSTRIA) Massimo Padalino (PADUA, ITALY)

ECHSA Congenital Database Committee

Chair:	George Sarris (ATHENS, GREECE) - DATABASE DIRECTOR
Co-Chair (ex-officio):	Attilio Lotto (LIVERPOOL, UNITED KINGDOM)
Treasurer (ex-officio):	Ilkka Mattila (HELSINKI, FINLAND)
Technical Director:	Zdzislaw Tobota (WARSAW, POLAND)
Members:	Boulos Asfour (ST. AUGUSTIN, GERMANY) Tjark Ebels (AMSTERDAM, NETHERLANDS) Claudia Herbst (VIENNA, AUSTRIA) Jürgen Hörer (MUNICH, GERMANY) Andrzej Kansy (WARSAW, POLAND) Vladimiro Vida (PADOVA, ITALY)
Associate Members:	Kisaburo Sakamoto (SHIZUOKA, JAPAN) Haibo Zhang (SHANGHAI, CHINA)
STS Representative:	Jeffrey Jacobs (GAINESVILLE, UNITED STATES)
AEPC Representative:	Thomas Krasemann (ROTTERDAM, NETHERLANDS)

ECHSA Research Committee

Chair:	Attilio Lotto (LIVERPOOL, UNITED KINGDOM)
Co-Chair (ex-officio):	George Sarris (ATHENS, GREECE) Jeffrey Jacobs (GAINESVILLE FL, UNITED STATES) Massimo Padalino (PADUA, ITALY) Anastasios Polimenakos (AUGUSTA GA, UNITED STATES) James St. Louis (AUGUSTA GA, UNITED STATES) Eleftherios Protopapas (ATHENS, GREECE)

ECHSA Membership Committee

Chair (ex-officio):	Vladimiro Vida (PADUA, ITALY) Julie Cleuziou (MUNICH, GERMANY) Vladimir Ilyin (MOSCOW, RUSSIAN FEDERATION) Matej Nosal (BRATISLAVA, SLOVAKIA) Massimo Padalino (PADUA, ITALY) Catharina van Doorn (LONDON, UNITED KINGDOM) Haibo Zhang (SHANGHAI, CHINA)
---------------------	---

ECHSA Membership

ECHSA Members are distinguished pediatric heart surgeons from all over Europe and the world. Membership is constantly expanding, representing more and more countries across the globe. At the moment, there are **110 members** from **30 countries**. During this Meeting, **10 more members** will be introduced to ECHSA.



The ECHSA Membership List is available on the Association's website:
<http://www.echsa.org/members-list>

ECHSA Contributors

In addition to the scientific meetings organized by ECHSA on a regular basis, the Association's contribution to the advancement of Pediatric Heart Surgery revolves around two major projects: **ECHSA Congenital Database (ECDB)** and **ECHSA Multi-Institutional Studies**.

ECHSA collaborates closely with the most significant scientific associations in the field of congenital heart disease, with which joint meetings are frequently held:

- **CHSS** (Congenital Heart Surgeons' Society)
- **WSPCHS** (World Society for Pediatric and Congenital Heart Surgery)
- **AEPC** (Association for European Pediatric and Congenital Cardiology)

The official Journal of ECHSA is the **World Journal for Pediatric and Congenital Heart Surgery** (WJPCHS, <http://journals.sagepub.com/home/pch>), which is also the official journal of CHSS and WSPCHS.

ECHSA Congenital Database

Participation in the ECHSA Congenital Database is a major benefit of Membership. An important aim of the founding members of ECHSA was to collect data on the outcomes of Congenital Heart Surgery procedures across Europe, thereby making possible comparison of results and identification of risk factors, as well as targeting research activities. This required good quality data obtained on a large scale from numerous European congenital cardiothoracic surgery units, as well as data validation and verification. Such data collection allows risk stratification and helps define optimal surgical treatment for certain subsets of patients. It is hoped that this effort will contribute to improved early and late survival, as well as improved quality of life for surgically treated patients with congenital heart disease across Europe.

The European Congenital Heart Surgeons Foundation, which was established in 1992 and obtain legal entity as the European Congenital Heart Surgeons Association in 2003, created the European Congenital Heart Defects Database (ECHDD), precursor of today's ECHSA Congenital Database (ECDB).

Today, the immediate aim of the ECDB is to collect data relating to treatment of patients with congenital heart disease, including diagnoses, risk factors, surgical and other procedures, as well as early and, eventually, long-term outcome.

The ECDB is accessed on an Institutional Level, with an annual fee required. There are currently **412 registered centers from 86 countries**.



Further information and documentation are available at the dedicated ECHSA Congenital Database website
<http://echsacongenitaldb.org/>

ECHSA Multi-Institutional Studies

ECHSA Multi-Institutional Studies are planned and organized by initiatives from individual Members, and coordinated by the ECHSA Research Committee. The research plans are discussed, refined, approved, and their progress monitored at the Annual Meetings. They constitute an extremely powerful way of pooling together the experiences of a great number of centers on the treatment of important and often rare conditions. The ECHSA Multi-Institutional Studies have produced outstanding research papers, published in prestigious international peer-reviewed journals. There are always several ongoing multi-institutional studies, which, upon completion, will be presented at major scientific meetings and then submitted for publication.



Published and Ongoing Studies, as well as New Proposals and Ongoing Joint Studies are available on the ECHSA website
<http://www.echsa.org/scientific-projects>



A bustling, cosmopolitan metropolis, yet the cradle of democracy and civilization, Athens is central to economic, financial, industrial, political and cultural life of Greece. Standing at the crossroads of three continents, Greece's capital has been, due its geographical position, a melting pot of different cultures, which have come together throughout its long history and still do so today. It's the land of hospitality, known since ancient times, where Greek people give a warm welcome to every visitor traveling to Athens to catch up memories to a unique destination. Athens is a modern European city with an old-town feel; ancient monuments fuse with a trendy, cosmopolitan scene. Masterpieces of significant architectural values stand tall today in a harmonious coexistence with impressive modern buildings. But, also, is an ideal congress destination, combining state-of-the-art infrastructure, excellent congress facilities and easy access from all over the world with world-class cultural attractions, modern amenities and diverse entertainment.



EUGENIDES FOUNDATION

387, Syggrou Avenue, 17564 Paleo Faliro, Athens, Greece

T. (+30) 210 94 69 600

W. <https://www.eef.edu.gr/en>

ABOUT EUGENIDES FOUNDATION

The Eugenides Foundation was established in 1956 as a non-profitmaking legal entity in private law. Its purpose was to implement the wishes expressed in the last testament of the late Eugenios Eugenides, a benefactor of the Greek nation. Registered and based in Athens, its founding charter states that its objective is to contribute to the education of young Greeks in science and technology. The Foundation is administered by a board of three members, one of whom is always the serving Chancellor of the National Technical University of Athens. In recognition of its multi-faceted contribution to Greek society the Foundation was awarded the Gold Medal of the Athens Academy in December 1965.

The Eugenides Foundation has been serving the cause of scientific and technical education for more than fifty years now, and looks forward to a future with fully renovated and renewed facilities, having created at the Faliro Delta a multi-venue educational centre designed to the highest specifications. Just a few minutes from the centre of Athens, the visitor will find state-of-the-art conference facilities within a remarkable environment distinguished by the elegance and simplicity of its architectural style. The buildings and technological infrastructure are complemented by comprehensive conference services, guaranteeing the success of any event.

HOW TO REACH EUGENIDES FOUNDATION

By the Public Transport

Bus lines

- 550** (P.Faliro-Kifissia) *Eugenides/Planetarium stop (Kifissia-P.Faliro) *Onaseio stop
- B2** (Agios Kosmas-Akadimia) *Eugenides/Planetarium stop (Akadimia – Agios Kosmas) *Onaseio stop
- A2** (Akadimia – Voula, via Amfitheas) *Iasonos stop (Voula-Akadimia, via Amfitheas) *Iasonos stop
- 126** (P.Faliro-Syngrou/Fix metro station) *Trapeza stop
- 229** (Piraeus – Ag.Dimitrios – Dafni metro station) **Onaseio stop (Ag.Dimitrios-Dafni metro station-Piraeus) **Iasonos stop

Trolley line

- 10** (Halandri – Tzitzifies) *Chrisaki stop (Tzitzifies – Halandri) * Chrisaki stop

*Above lines are served by Syngrou-Fix metro station

**Above line is served by Dafni metro station



ABSTRACT BOOK

ECHSA 2023 Meeting abstracts have been published in electronic format and will be sent to all the registered delegates.

APP

Android devices

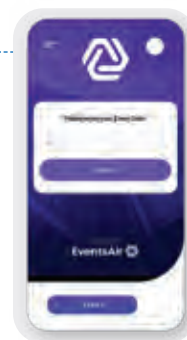
Search for The Event App by EventsAIR on **PlayStore**.

When you are prompted for a code upon launching the App, insert **echsa23**

iOS devices

Search for The Event App by EventsAIR on **AppStore**.

When you are prompted for a code upon launching the App, insert **echsa23**



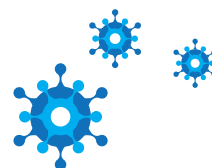
CASH POINTS

A Piraeus Bank ATM machine is located in about 2 minutes walking distance from the Eugenides Foundation venue (Address: Leoforos Syggrou 383 & Pentelis 17 avenue). Banks in Greece operate daily from 08:00 to 14:00.

COVID-19 PROTOCOLS

COVID-19 protocol restrictions have been lifted, but the Meeting organization would like to stress the importance of adhering to the below precautions:

- **keep safe distances, even in outdoor areas**
- **use of disinfectants available in all areas**



CURRENCY / EXCHANGE

The Greek currency is euro (EUR). Exchange offices are located all around the city center (exchange offices and banks).

ELECTRICITY

The electrical power supply voltage in Greece is 220-240 Volts (US/Canada: 110-120 Volts).

EMERGENCY CONTACTS

Police: **100**

Fire department: **199**

Medical emergency (ambulance): **166**

European emergency contact number (all above): **112**

ENVIRONMENTAL POLICY

The ECHSA 2023 Meeting is observing an environmentally friendly policy. In this context, every effort has been made from preparation to realization of the Meeting, to minimize impact on the environment. The Organizing Secretariat observes an in-house recycling policy, and offices are hosted in energy saving premises.

During the ECHSA 2023 Meeting, no plastic badges will be used. All delegate material is environmentally friendly, where possible made from recycled material.

Venue selection has taken into account easy access through a variety of public transportation environmentally friendly choices, thus minimizing carbon footprint.

EXHIBITION OPERATING HOURS

All exhibitors are listed in the Industry Section and indicated in Venue Floorplans. The exhibition will run during Meeting dates at the designated areas, during coffee and lunch breaks.

THURSDAY 20.04.2023 15:00-19:00	>	FRIDAY 21.04.2023 08:00-19:00	>	SATURDAY 22.04.2023 08:00-17:00
--	---	--	---	--

FACILITIES FOR PERSONS WITH IMPAIRED MOBILITY

The premises of the Eugenides Foundation are accessible and friendly to people with mobility impairment, sensory impairment and disabilities (entrance from 11 Pentelis Street; accessibility chain).

- > Disabled parking spaces are available: there are outdoor disabled parking spaces (11 Pentelis Street), as well as a parking space within the building for vehicles of people with mobility impairment (entrance from Ellinidon Street). For parking inside the building, prior arrangement must be made by telephoning 210-9469600.
- > All floors of the Eugenides Foundation allow for easy movement for wheelchair users.
- > Wheelchairs are available, which the public may borrow at no cost during their visit.
- > There are access toilets for disabled people on **level -1**.
- > Toilets with baby-change facilities are available on **level -1**.
- > Guide dogs for the blind are welcome.
- > The Eugenides Foundation leaflets are available in Braille and large font and are obtainable at the Information Desk (ground floor, entrance from 11 Pentelis Street).
- > A service to interpret in Greek sign language and/or lipspeaking is available by arranging well in advance via an SMS on 6985-903381 or by e-mail: logistics@eef.edu.gr.
- > The New Digital Planetarium has been designed for wheelchair users.
- > Two modern workstations have been installed in the Library – these allow equal access to Library material for visually impaired people and people with serious mobility impairment. For more information, [click here](#).
- > All UTech Lab computers have accessibility software for visually impaired, deaf and hearing-impaired users.
- > The Eugenides Foundation Amphitheatre has seats for wheelchair users, as well as a wheelchair lift to access the panel and the podium.

FOOD & BEVERAGES

Coffee/tea and assortments during official breaks are included in the delegate registration fee and will be served in designated catering stations in the Meeting area.

INTERNET

Free Wi-Fi access will be available in all Meeting areas throughout the duration of the ECHSA 2023 Meeting.

LANGUAGE

English is the official language of the ECHSA 2023. No simultaneous interpretation is provided.

LIABILITY AND INSURANCE

Registration fees do not include participants' insurance against personal accidents, sickness and cancellations by any party, theft, loss or damage to personal possessions. Participants are requested to make their own arrangements with respect to health and travel insurance. ECHSA and the Meeting PCO CONVIN SA accept no liability.

LOST & FOUND

Lost and Found property can be handed in at the Venue Reception.

MEETING DATES

Thursday, 20 April to Saturday, 22 April 2023.

MEETING VENUE

Eugenides Foundation

337, Syggrou Avenue, 17564 Paleo Faliro, Athens, Greece

T. (+30) 210 94 69 600

W. <https://www.eef.edu.gr/en>

PARKING

The Meeting venue does not offer a total parking space. There are outdoor parking spaces and a variety of paid parking spots around the Meeting venue.

PHYSICAL FORMAT

Physical participation is encouraged so that this Meeting makes a strong statement marking the reopening of face-to-face interaction and networking. Meeting sessions will be streamed live for delegates unable to attend on last minute notice, and archived for post-viewing by ECHSA membership through its website's secure areas.

SOCIAL RESPONSIBILITY

CSR

ECHSA 2023 promotes CSR actions and initiatives which reflect our identity and sense of responsibility to society and people.

WHAT YOU CAN DO

- > **Tailor-made Aid Box**
- > **Create your own amenities box for the Athens Homeless Foundation**
- > **Support the worldwide movement of Médecins Sans Frontières**

TAXI SERVICES

Delegates can hire taxis at the taxi station located across the Meeting venue.

TELECOMMUNICATIONS

There are 3 main GSM operators in Greece: Cosmote, Vodafone, and Wind. The protocols for digital mobile telephone transmissions are based on GSM technology, operating at the frequencies of 900 and 1800 MHz. Please contact your provider for further details.

TIME

Athens follows UTC/GMT +2 hours during the summer period.

TIPPING

In restaurants, hotels, taxis or other services, tipping is optional, and customized per case, depending on whether you are pleased with the service. Approximately 5% of the bill is a good guideline.

WEATHER

The weather in Athens in April is as pleasant as it gets, with average daytime temperature of about 20°C (68°F) with bright, sunny skies most days.

BADGES

Registration badges will be used during the ECHSA 2023 Meeting. Participants will receive their badges upon check-in at the Registrations Desk. For identification purposes and admission to scientific sessions, participants are requested to wear their badges at all times. Admission to Meeting areas will not be allowed without badge identification.

CERTIFICATES OF ATTENDANCE

A Certificate of Attendance will be sent to all registered participants after the Meeting via email.

REGISTRATION DESK

The Registrations Desk and Onsite Secretariat is located on the 1st floor.

Operating hours:

THURSDAY 20.04.2023 14:00-19:00	>	FRIDAY 21.04.2023 08:00-19:30	>	SATURDAY 22.04.2023 07:30-17:30
--	---	--	---	--

REGISTRATION FEES

In-person (Physical) Attendance

Category	Late & Onsite Fees
Members fee	400,00€
Non-Member fee	500,00€
Residents/Trainees fee	200,00€
Nurses fee	75,00€

Physical Registration Entitlements: Admission to all meeting sessions | Access to Poster areas | Access to Exhibition area | Coffee breaks | Opening Ceremony & Welcome Reception | Electronic certificate of attendance (pdf) | Meeting mobile app | Final program e-book (pdf)

CME ACCREDITATION

An application has been made to the UEMS EACCME® for CME accreditation of this event.

The Scientific Committee of the ECHSA 2023 Annual Meeting is pleased to present Dr. **Fabian Seeber** (Kepler University Hospital, Linz, Austria) with the **BEST ABSTRACT AWARD** with reference to his oral presentation (**OP09**) titled "Outcome after ECMO Therapy in Norwood Patients before the bidirectional Glenn operation".

Outcome after ECMO Therapy in Norwood Patients before the bidirectional Glenn operation

Fabian Seeber^{1,2}, Niklas Krenner², Eva Sames-Dolzer^{1,2}, Michaela Kreuzer^{1,2}, Roland Mair^{1,2}, Gregor Gierlinger^{1,2}, Paimann Nawrozi², Andreas Zierer², Rudolf Mair^{1,2}

¹Children's Heart Center Linz, Kepler University Hospital, Linz, Austria

²Department of Cardiothoracic and Vascular Surgery, Kepler University Hospital, Medical Faculty Johannes Kepler University Linz, Austria

The abstract will be presented on Friday, 21 April 2023 at 16:00-17:00 hrs, as part of **ABSTRACT SESSION 3: ORAL PRESENTATIONS**

The award will be presented Saturday, 22 April 2023 during the **CLOSING SESSION**.

INSTRUCTIONS FOR SESSION CHAIRS, SPEAKERS & ORAL ABSTRACT PRESENTERS

Abstract presentations are timed at 15 minutes (8 minutes for presentation, plus 7 minutes for discussion). Please make sure you are present at the Venue at least one hour before the start time of your session in order to upload the presentation material you intend to use at the Speakers Ready Room, and that you present yourself to the Chair of the session 15 minutes prior to the starting time. Further details regarding oral presentations are available on the ECHSA 2023 website. The Speakers' Preview Room will be located near the entrance of the plenary hall on the 1st floor and will be operating throughout Meeting dates, according to the below schedule:

Operating hours:

THURSDAY 20.04.2023 14:00-18:30	>	FRIDAY 21.04.2023 07:30-19:15	>	SATURDAY 22.04.2023 07:30-18:15
--	---	--	---	--

Chairs, Speakers and Oral abstract presenters who are present in Athens should be close to the stage and ready for the session at least 15 minutes before its beginning, to meet the steward/hostess and ensure everything is in place. Chairs are allocated at the panel desk, where chair screens and fixed microphones will be provided to facilitate their assignment. Chairs are advised to be alert and observe time allocation, as they are responsible for the smooth running of their session and the overall program flow.

INSTRUCTIONS FOR POSTER PRESENTERS

Posters can be mounted on Thursday, 20 April at 14:00-15:00, and dismantled on Saturday 22 April at 16:00-16:30.

Posters that are not taken down after that time will be disposed of.

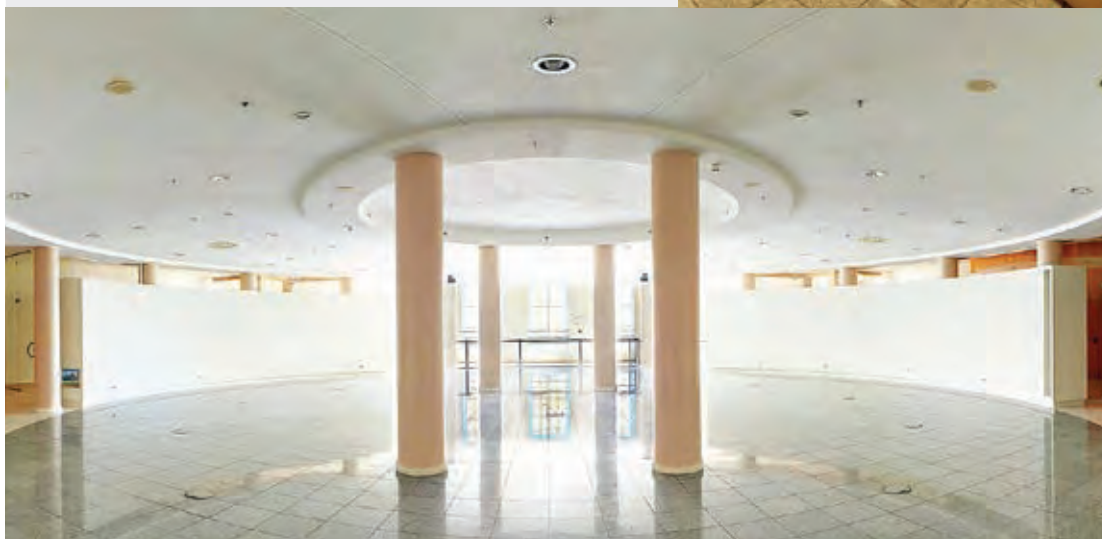
POSTER DIMENSIONS: Maximum allowed is standard A0 size (120cm height x 84cm width) | **ORIENTATION:** Vertical (portrait).

It is essential that presenters clear their poster board promptly and within the time limit, as indicated above. The Meeting Organizers will not be responsible for posters or any material left behind, lost, stolen or damaged.

POSTER VIEWING HOURS: Poster presenters are advised to make themselves available in the Poster Area during official breaks, in order to discuss their findings with other delegates.

Welcome reception

- WHEN:** Thursday, 20 April 2023
- LOCATION:** Meeting venue @ the Exhibition area
- TIME:** 19:30-21:00
- FORMAT:** Standing cocktail
- ATTIRE:** Casual
- ATTENDANCE:** included in delegate / Faculty / exhibitor registration benefits





Thursday, 20 April 2023

PLENARY HALL (AMPHITHEATER)

- 15:00–16:15 **UPDATE COURSE: PEDIATRIC MECHANICAL CIRCULATORY SUPPORT – PART 1**
Extracorporeal Membrane Oxygenation (ECMO) Support
- 16:15–16:45 **Intermission**
- 16:45–18:30 **UPDATE COURSE: PEDIATRIC MECHANICAL CIRCULATORY SUPPORT – PART 2**
Ventricular Assist Device (VAD) support

Friday, 21 April 2023

PLENARY HALL (AMPHITHEATER)

- 08:20–08:30 **OPENING SESSION – WELCOME ADDRESSES**
- 08:30–09:30 **ABSTRACT SESSION 1: ORAL PRESENTATIONS**
- 09:30–10:00 **HONORARY LECTURE 1: The CHSS Recommendations for United States Centers**
Performing Pediatric Heart Surgery
- 10:00–10:30 **Coffee break - Poster viewing**
- 10:30–11:30 **ABSTRACT SESSION 2: ORAL PRESENTATIONS**
- 11:30–12:30 **SPECIAL SESSION 1: AORTIC VALVE**
- 12:30–14:00 **Intermission**
- 14:00–14:30 **HONORARY LECTURE 2: Repaired congenital heart disease – A lifespan condition**
- 14:30–15:30 **INVITED LECTURES SESSION 1**
- 15:30–16:00 **Coffee break - Poster viewing**
- 16:00–17:00 **ABSTRACT SESSION 3: ORAL PRESENTATIONS**

HANDS ON AREA

- 17:15–19:15 **HANDS ON SURGICAL WORKSHOP: The ASO for TGA using 3D-Printed Heart Models**

Limited attendance

Saturday, 22 April 2023

PLENARY HALL (AMPHITHEATER)

- 08:00–09:00 **ABSTRACT SESSION 4: ORAL PRESENTATIONS**
- 09:00–10:00 **ABSTRACT SESSION 5: SURGICAL VIDEOS**
- 10:00–10:30 **Coffee break - Poster viewing**
- 10:30–11:30 **ECHSA CONGENITAL DATABASE & RESEARCH SESSION**
- 11:30–12:30 **ABSTRACT SESSION 6: ORAL PRESENTATIONS**
- 12:30–14:00 **Intermission**
- 14:00–14:30 **INVITED LECTURES SESSION 2: AEPC - WSPCHS**
- 14:30–15:00 **HONORARY LECTURE 3: Paradoxes in Surgery and Life: our next winning challenge**
- 15:00–16:00 **SPECIAL SESSION 2: CHALLENGES IN CONGENITAL HEART DISEASE**
- 16:00–16:30 **Coffee break - Poster viewing**
- 16:30–17:00 **ECHSA PRESIDENTIAL ADDRESS**
- 17:00–17:15 **CLOSING SESSION**
- 17:15–18:15 **ECHSA BUSINESS MEETING**

Members only

Detailed Program

DAY 1 | Thursday | 20 April 2023

15:00-16:15

PLENARY HALL



UPDATE COURSE: PEDIATRIC MECHANICAL CIRCULATORY SUPPORT – PART 1 Extracorporeal Membrane Oxygenation (ECMO) Support

Chairs: **Massimo Padalino** | Italy, **Attilio Lotto** | United Kingdom

15:00-15:20 *ECMO strategies in different CHDs*
Attilio Lotto | United Kingdom

15:20-15:40 *ECMO following the Norwood operation*
Jürgen Hörer | Germany

15:40-16:00 *Hub and spoke ECMO*
Massimo Padalino | Italy

16:00-16:15 Discussion

16:15-16:45



Intermission

16:45-18:30

PLENARY HALL



UPDATE COURSE: PEDIATRIC MECHANICAL CIRCULATORY SUPPORT – PART 2 Ventricular Assist Device (VAD) support

Chairs: **Jürgen Hörer** | Germany, **Eleftherios Protopapas** | Greece

16:45-17:05 *Options for mechanical support in children with decompensated CHF and myocarditis*
Massimo Padalino | Italy

17:05-17:25 *When to transition from ECMO to VAD for acutely decompensated CHF and myocarditis*
Peter Murin | Germany

17:25-17:45 *New Strategies for VAD Support in Patients with Functionally Univentricular Heart*
Mark Bleiweis | USA

17:45-18:05 *New cannulas for VAD support in Fontan patients*
Jürgen Hörer | Germany

18:05-18:30 Discussion

08:20-08:30

PLENARY HALL



08:20-08:25 Welcome by the Local Host
George Sarris | Greece

08:25-08:30 Welcome by Scientific Committee Chair
Vladimiro Vida | Italy

08:30-09:30

PLENARY HALL



ABSTRACT SESSION 1: ORAL PRESENTATIONS

Chairs: **Sertaç Çiçek** | Turkey, **John Papagiannis** | Greece

OP01 *The neo-aortic root condition in patients with transposition of the great arteries after arterial switch operation: one decade of follow-up*
Oleg Kornoukhov | Russian Federation

OP02 *Evolution from mechanical to bioprosthetic valves in paediatric mitral valve replacement*
Joeri Van Puyvelde | Belgium

OP03 *How long can we wait with truncus arteriosus correction? Possible obstacles to perform surgery at time*
Michał Kapałka | Poland

OP04 *Staged modified Yasui procedure after hybrid operation in patient with interrupted aortic arch and severe left ventricular outflow tract obstruction*
Marek Legaszewski | Poland

09:30-10:00

PLENARY HALL



HONORARY LECTURE 1: The CHSS Recommendations for United States Centers Performing Pediatric Heart Surgery

Introduction by: **George Sarris** | Greece

Speaker: **David Overman** | USA

10:00-10:30



Coffee Break | Poster viewing

Detailed Program

DAY 2 | Friday | 21 April 2023

10:30–11:30

PLENARY HALL



ABSTRACT SESSION 2: ORAL PRESENTATIONS

Chairs: Vadim Lyubomudrov | Kuwait, Sara Camilla Arrigoni | Netherlands

OP05 *Creation of a Global Platform Dedicated to the Exchange of Knowledge and Experience in the Treatment of Congenital Heart Disease: The Unification of National Congenital Heart Surgery Databases*
James St Louis | USA

OP06 *How do patients, with operated congenital cardiac defects, perceive their social quality of life?*
Spiros Loggos | Greece

OP07 *Outcome of medical treatment of pediatric patients with congenital heart defects after transport to a tertiary center in a neighbor country – a retrospective multicenter study*
Claudia Herbst | Austria

OP08 CANCELLED

11:30–12:30

PLENARY HALL



SPECIAL SESSION 1: AORTIC VALVE

Chairs: Tjark Ebels | Netherlands, René Prêtre | Switzerland

11:30–11:45 *Aortic valve repair in child*
Boulos Asfour | Germany

11:45–12:00 *The Ozaki technique*
Christopher Baird | USA

12:00–12:15 *Aortic valve reimplantation*
Luca Vricella | USA

12:15–12:30 *Ross operation (regular vs reinforced)*
René Prêtre | Switzerland

12:30–14:00



Intermission

14:00–14:30

PLENARY HALL



HONORARY LECTURE 2: Repaired congenital heart disease – A lifespan condition

Introduction by: **Vladimiro Vida** | Italy

Speaker: **Regina Bökenkamp** | Netherlands

14:30-15:30

PLENARY HALL



INVITED LECTURES SESSION 1

Chair: **Rudolf Mair** | Austria

14:30-15:00 *The Difference Between "Risk-Adjusted Outcomes" and "Case Mix Index": The reasons why both measures are COMPLEMENTARY and IMPORTANT*

Jeffrey Jacobs | USA

15:00-15:30 *ECHSA Database for Quality Assessment*

George Sarris | Greece

15:30-16:00



Coffee Break | Poster viewing

16:00-17:00

PLENARY HALL



ABSTRACT SESSION 3: ORAL PRESENTATIONS

Chairs: **Illya Yemets** | Ukraine, **Anastasios Polimenakos** | USA

OP09 *Outcome after ECMO Therapy in Norwood Patients before the bidirectional Glenn operation*
Fabian Seeber | Austria

OP10 *Elective delayed sternal closure strategy following pulmonary artery banding in complex congenital heart defects*
Attilio Lotto | United Kingdom

OP11 *Late ventricular myocardial remodeling after pulmonary artery banding for end stage dilated cardiomyopathy. A multicenter international experience*
Massimo Padalino | Italy

OP12 *Variants of Norwood operation*
Tomasz Mroczek | Poland

17:15-19:15

HANDS ON AREA



HANDS ON SURGICAL WORKSHOP: The ASO for TGA using 3D-Printed Heart Models

Instructors **George Sarris** | Greece, **Jose Fragata** | Portugal, **Rudolf Mair** | Austria,
Boulos Asfour | Germany, **Matej Nosal** | Slovakia, **René Prêtre** | Switzerland

08:00-09:00

PLENARY HALL



ABSTRACT SESSION 4: ORAL PRESENTATIONS

Chairs: **Stojan Lazarov** | Bulgaria, **Nikos Giannopoulos** | Greece

OP13 *Intact atrial septum with right-sided partial anomalous pulmonary venous connection: a rare case report*
Ilknur Şahin | Turkey

OP14 *Controlled PTFE Sleeve Plication and pexy of hugely dilated Right Pulmonary Artery in a baby with left isomerism, AVSD, and right main-stem bronchial compression with bronchomalacia. A case report*
Eleftherios Protopapas | Greece

OP15 *Realignment of the ventricular septum during closure of VSD's in Fallot patients*
René Prêtre | Switzerland

OP16 *Surgical salvage of severely symptomatic Scimitar syndrome in infancy following attempted percutaneous palliation of scimitar vein obstruction*
Eleftherios Protopapas | Greece

09:00-10:00

PLENARY HALL



ABSTRACT SESSION 5: SURGICAL VIDEOS

Chairs: **Numan Ali Aydemir** | Turkey, **Vladimiro Vida** | Italy

SV01 *Multiple reinterventions for rapidly progressing pulmonary veins stenosis*
Yaroslav Mykychak | Germany

SV02 *Surgical treatment of aortic atresia with ventricular septal defect and normally developed left ventricle in a neonate*
Matej Nosál | Slovakia

SV03 *Surgical treatment of mitral valve endocarditis with annular abscess and multiple systemic embolization in a 9-year-old patient*
Vladimiro Vida | Italy

SV04 *Challenges in aortic root translocation (Nikaidoh type) operation*
Tomasz Mroczek | Poland

10:00-10:30



Coffee Break | Poster viewing

10:30–11:30

PLENARY HALL



ECHSA CONGENITAL DATABASE & RESEARCH SESSION

Introduction by: **Jose Fragata** | Portugal

Presenters: **George Sarris** | Greece, **Attilio Lotto** | United Kingdom

11:30–12:30

PLENARY HALL



ABSTRACT SESSION 4: ORAL PRESENTATIONS

Chairs: **Matej Nosal** | Slovakia, **Tomasz Mroczek** | Poland

OP17 *Micromechanical properties of animal and synthetically derived materials used in congenital cardiac surgery repairs*

Attilio Lotto | United Kingdom

OP18 *Combination of 3D-printing with virtual reality technologies for enhanced preoperative planning*

Eleftherios Protopapas | Greece

OP19 CANCELLED

OP20 *Cone repair of Ebstein's anomaly in young patients*

Illya Yemets | Ukraine

12:30–14:00



Intermission

14:00–14:30

PLENARY HALL



INVITED LECTURES SESSION 2

Chairs: **Jukka Salminen** | Finland

14:00–14:15 *A milestone: The all-new AEPC Interventional Cardiology Part of the ECHSA Congenital Cardiac Database*

Regina Bökenkamp | Netherlands

14:15–14:30 *Use of the Database for quality projects on a national level and the benefit to individual centers*

James St. Louis | USA

Detailed Program

DAY 3 | Saturday | 22 April 2023

14:30-15:00

PLENARY HALL



HONORARY LECTURE 3: Paradoxes in Surgery and Life: our next winning challenge

Introduction by: **George Sarris** | Greece

Speaker: **Jose Fragata** | Portugal

15:00-16:00

PLENARY HALL



SPECIAL SESSION 2: CHALLENGES IN CONGENITAL HEART DISEASE

Chair: **Attilio Lotto** | United Kingdom

15:00-15:20 *Fetal interventions in HLHC: Can we preserve biventricular circulation?*
Gerald Tulzer | Austria

15:20-15:40 *Biventricular repair for borderline LVs*
Boulos Asfour | Germany

15:40-16:00 *New strategies for ECMO*
Chris Harvey | United Kingdom

16:00-16:30



Coffee Break | Poster viewing

16:30-17:00

PLENARY HALL



ECHSA PRESIDENTIAL ADDRESS

Presented by: **George Sarris** | Greece

17:00-17:15

PLENARY HALL



CLOSING SESSION

Best Abstract Award
Presented by the Scientific Committee Chair

Farewell
Addressed by the Host

17:15-18:15

PLENARY HALL



ECHSA Business Meeting | Members only

Poster Presentations Catalogue

PP01 | CANCELLED

PP02 | *Preoperative surgical planning for biventricular repair of double outlet right ventricle*
Meletios Kanakis (Greece)

PP03 | CANCELLED

Boulos ASFOUR | *German Pediatric Heart Center, Bonn, Germany*

Christopher BAIRD | *Department of Cardiac Surgery, Boston Children's Hospital, Boston MA, USA*

Mark BLEIWEIS | *University of Florida Health Congenital Heart Center, Gainesville FL, USA*

Regina BÖKENKAMP | *Department of Pediatrics, Leiden University Medical Centre, Netherlands*

Jose FRAGATA | *Hospital de Santa Marta, Lisbon, Portugal*

Chris HARVEY | *University Hospitals of Leicester NHS Trust, United Kingdom*

Jürgen HÖRER | *German Heart Center, Munich, Germany*

Jeffrey JACOBS | *University of Florida, Gainesville FL, USA*

Attilio LOTTO | *Alder Hey Children's Hospital, Liverpool, United Kingdom*

Peter MURIN | *Department of Congenital Heart Surgery / Pediatric Heart Surgery, Deutsches Herzzentrum Berlin, Germany*

David M. OVERMAN | *The Children's Heart Clinic at Children's Hospitals and Clinics of Minnesota, USA*

Massimo PADALINO | *University of Padua, Italy*

René PRÊTRE | *CHUV, Lausanne, Switzerland*

George SARRIS | *MITERA Children's Hospital, Athens, Greece*

James St LOUIS | *Augusta University, Augusta GA, USA*

Gerald TULZER | *Department of Pediatric Cardiology, Kepler University Hospital, Linz, Austria*

Vladimiro VIDA | *University of Padua, Italy*

Luca VRICELLA | *University of Chicago and Advocate Children's Hospital, Chicago IL, USA*



Industry section

Sponsors' Acknowledgement



The ECHSA 2023 Annual Meeting gratefully acknowledges the support of the below industry:

Bronze Sponsor



Other Sponsors & Exhibitors





BERLIN HEART

<http://www.berlinheart.de>

At Berlin Heart we do everything we can to provide people with heart failure with the best possible care.

The aim of our work is to ensure that these patients live well despite their illness.

Berlin Heart develops, produces and markets innovative systems for mechanical circulatory support.

With our products EXCOR® Adult and EXCOR® Pediatric, we cover the entire scope of medical indications.

We are the only company in the world offering systems that can support patients of every age and size, from newborns all the way to adults.



EUROSETS

<http://www.eurosets.com>

Eurosets is one of the most innovative and fastest growing players in the ECLS (Extracorporeal Life Support) and CPB (Cardiopulmonary Bypass) fields. Our patient centric culture makes us searching continuously for solutions to improve patients' outcomes, through different portfolio options. The strong product pipeline, able to deliver new products every year, together with a collaborative approach towards our business partners, lead to a double-digit growth over the past years. All this while focusing on sustainable solutions in everything we do.

EXCOR® Revive

*Build the bridge to heart transplant
for failing Fontan patients*

The EXCOR® Revive concept generates pulsatile pulmonary blood flow to improve hemodynamics. Therefore, EXCOR® Revive intends to improve the end-organ function and condition of failing Fontan patients.

“Optimal positioning of the cannula in the specific Fontan anatomy significantly improves the outcome.”

Prof. Dr. med. Jürgen Hörer
First EXCOR® Revive UVAD implantation

“The surgical complexity is drastically reduced.”

Prof. Dr. med. Daniel Zimpfer
First EXCOR® Revive BVAD implantation)



Publications

Michel, S. G. et al. (2022):
Cavopulmonary support with a modified cannulation technique in a failing Fontan patient.
Interact Cardiovasc Thorac Surg.

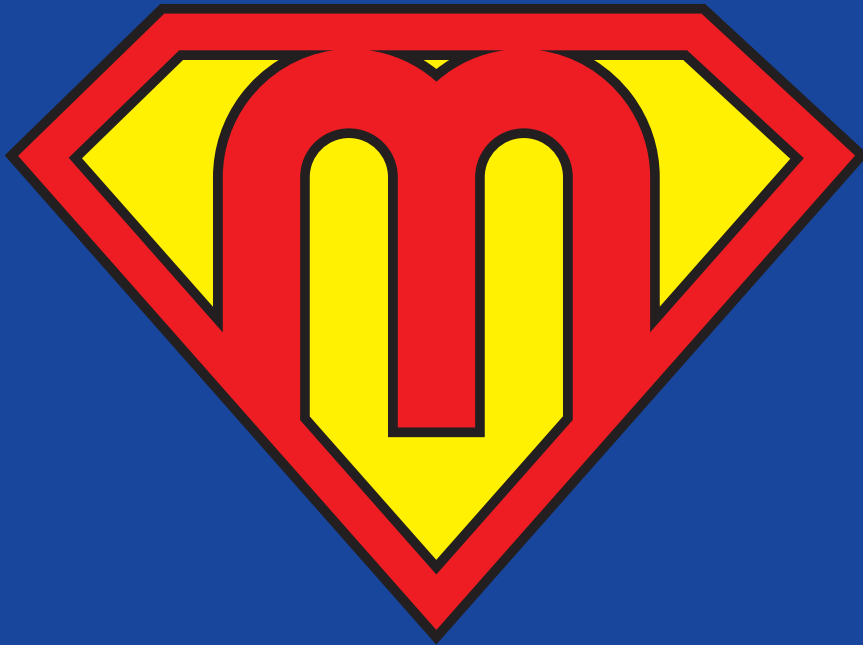


Karner, B. et al. (2022):
First-in-man use of the EXCOR Venous Cannula for combined cavopulmonary and systemic ventricular support in Fontan circulation failure.
J Heart Lung Transplant.



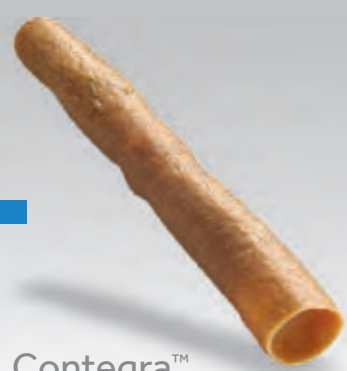
Dal Sasso, E. et al. (2022):
A Novel Strategy for the Mechanical Subpulmonary Support in Failing Fontan Patients.
Thorac Cardiovasc Surg.





A DIFFERENT VERSION OF A KID'S SUPERHERO

Known as “the doctor” that wears a white uniform.
With a life's purpose, to put smile on children's faces.
Not with any kind of superpowers, but a hero that knows all the
right “tricks” to handle any health concern.
This hero doesn't live in a faraway planet, but in a small country
called Greece, and wholeheartedly takes care of kids in need.
This hero is one of the MITERA Children's Hospital doctors,
and stands by every kid, 24-7-365.
A kid's superhero, but this time, a real one!



Contegra™
Pulmonary Valved Conduit

VERSATILE. CONVENIENT. THE NATURAL CHOICE.



CONTEGRA™ PULMONARY VALVED CONDUIT

An integrated valved conduit for reconstruction or replacement of the natural right ventricular outflow tract (RVOT) or replacement of a failed homograft or composite pulmonary conduit

Natural

- Derived from a bovine jugular vein
- Flexible for unique tailoring as only natural tissue can offer
- Blood passes easily across a continuous tissue interface and natural sinus



No discontinuity between the lumen and valve



Thin, compliant leaflets open fully and close readily with minimal pressure

"...its function early is comparable if not superior to the PH [pulmonary homograft] because it has developed less obstruction and regurgitation than has been reported with PHs at the same time interval..."¹

This device has been approved as a humanitarian use device in the U.S.

Medtronic
Further. Together

Versatile

- ▄ Thin, extensible tissue is especially suited for anastomosis (figure 1)
- ▄ Easily customized to individual needs (figure 2)
- ▄ Proximal length allows for infundibular shaping without patching
- ▄ Resilient wall retains suture and supports hemostatic suture line
- ▄ No additional material necessary for proximal anastomosis



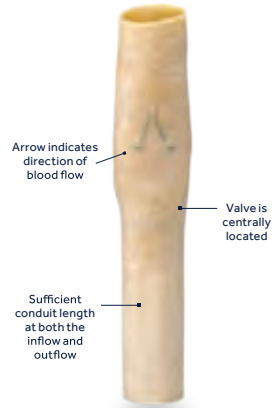
(figure 1)



(figure 2)

Convenient

- ▄ Preserved in buffered glutaraldehyde
- ▄ Readily available — no thawing or preclotting required



MEDTRONIC CONTEGRA™ PULMONARY VALVED CONDUIT

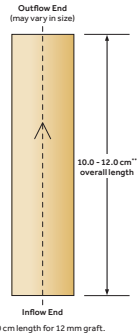
Ordering Information

UNSUPPORTED

PART NUMBER	INTERNAL DIAMETER (Inflow End)
200H12	12 mm
200H14	14 mm
200H16	16 mm
200H18	18 mm
200H20	20 mm

Model 01-0055 - Torque Wrench
Optional, reusable jar opener

Storage Temperature	+15 °C +59 °F	+25 °C +77 °F
---------------------	------------------	------------------



REFERENCE

1. Brown JW, Ruzmetov M, Rodefeld MD, Vijay P, Darragh RK. Valved bovine jugular vein conduits for right ventricular outflow tract reconstruction in children: an attractive alternative to pulmonary homograft. *Ann Thorac Surg.* September 2006;82(3):909-916.

BIBLIOGRAPHY

1. Bowé T, Demanet H, Wauthy P, et al. Early results of valved bovine jugular vein conduit versus bicuspid homograft for right ventricular outflow tract reconstruction. *Ann Thorac Surg.* August 2002;74(2):536-541.
2. Breymann T, Thies WR, Boethig D, et al. Bovine valved xenografts for RVOT reconstruction: results after 71 implantations. *Eur J Cardiothorac Surg.* April 2002;21(4):703-710.
3. Carrel T, Berdat P, Pavlovic M, Pfammatter JP. The bovine jugular vein: a totally integrated valved conduit to repair the right ventricular outflow. *J Heart Valve Dis.* July 2002;11(4):552-556.
4. Como AF, Hurmi M, Griffin H, et al. Bovine jugular vein as right ventricle-to-pulmonary artery valved conduit. *J Heart Valve Dis.* March 2002;11(2):242-247.
5. Como AF, Hurmi M, Griffin H, Jeaneuraud X, von Segesser LK. Glutaraldehyde-fixed bovine jugular vein as a substitute for the pulmonary valve in the Ross operation. *J Thorac Cardiovasc Surg.* September 2001;122(3):493-494.
6. Herijgers P, Ozaki S, Verbeke E, et al. Valved jugular vein segments for right ventricular outflow tract reconstruction in young sheep. *J Thorac Cardiovasc Surg.* October 2002;124(4):798-805.
7. Breymann T, Blanz U, Wojtali MA, et al. European Contega multicentre study: 7-year results after 165 valved bovine jugular vein graft implantations. *Thorac Cardiovasc Surg.* August 2009;57(5):257-269.

CONTEGRA (FOR HDE USE)

CONTEGRA™ PULMONARY VALVED CONDUIT

Indications: See *Humanitarian Use Device section below.

Contraindications: None known.

Warnings/Precautions/Adverse Effects: Acceptable clinical performance has been established for the Contega conduit in pediatric patients under the age of 10. Because of the possibility that complications of the device could become apparent only after extended use, a benefit-risk consideration of the long-term use of the Contega conduit in pediatric patients over 10 years of age is particularly important. General complications reported with valved conduits and biological tissue valves implanted in the heart include: endocarditis, hemolysis, hemorrhage (including anticoagulant-related hemorrhage), immunologic rejection, prosthesis calcification (intrinsic and extrinsic), prosthesis (conduit) dilatation, prosthesis (conduit) dissection, neointimal thickening, neointimal peeling/delamination, prosthesis regurgitation, prosthesis structural deterioration (perforation, tear, thickening, dissection, or myxomatous), prosthesis stenosis, prosthesis thrombosis, pulmonary hypertension, thromboembolism, residual or increasing transvalvular pressure gradient, obstruction of implant, pulmonary embolism, coronary artery compression.

For additional information, please refer to the Instructions for Use provided with the product.

CAUTION: Federal law (USA) restricts this device to sale by or on the order of a physician.

***Humanitarian Use Device:** Authorized by Federal law (USA) for use in patients under 18 years of age for connection or reconstruction of the Right Ventricular Outflow Tract (RVOT) in the following congenital heart malformations: Pulmonary Stenosis, Tetralogy of Fallot, Truncus Arteriosus, Transposition with Ventricular Septal Defect (VSD), Pulmonary Atresia. In addition, the Contega Pulmonary Valved Conduit is indicated for the replacement of previously implanted but dysfunctional pulmonary homografts or valved conduits. The effectiveness of this device for these uses has not been demonstrated.

For a listing of indications, precautions, and potential side effects, please refer to the Instructions for Use provided with the product or contact your local Medtronic representative.

©2020 Medtronic. All rights reserved. Medtronic, Medtronic logo, and Further, Together are trademarks of Medtronic. All other brands are trademarks of a Medtronic company.

UC201601522a EN
11/2020

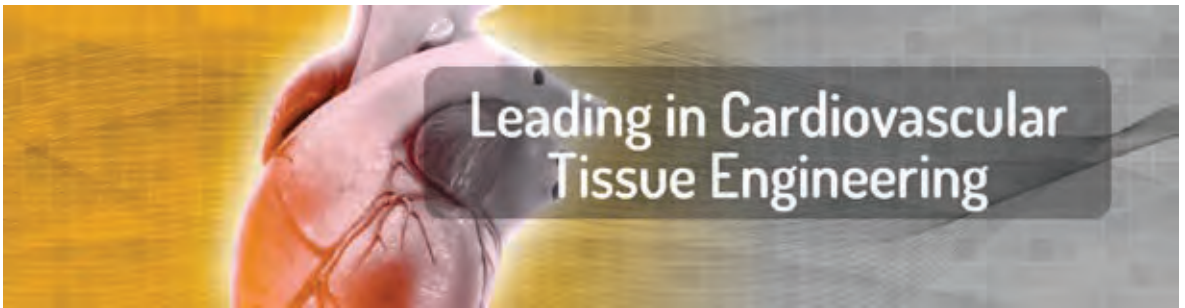
Medtronic

710 Medtronic Parkway
Minneapolis, MN 55432-5604
USA
Tel: (763) 514-4000
Fax: (763) 514-4879
Toll-free: (800) 328-2518

LifeLine
CardioVascular Technical Support
Tel: (877) 526-7890
Fax: (651) 367-0918
rs.structuralheart@medtronic.com

medtronic.com

We are a biotechnology company focussing on the development and manufacturing of biological medical devices. Our cell-free implants minimize the need for long-term medication, which helps to reduce possible negative side effects. This can significantly improve the quality of life, especially for younger patients.



The Matrix Patch™ equine is a cell-free equine-derived pericardial patch for defect repair in pediatric cardiac surgery.

The Matrix Patch™ equine shows excellent mechanical stability very similar to conventional glutaraldehyde-treated pericardial patches. Its handling is more flexible and reveals improved suture properties with reduced needle-hole bleeding.

The Matrix Patch™ equine is manufactured without glutaraldehyde, using a unique process that prevents the accumulation of calcium in the tissue.

Equine pericardium has been shown to provide excellent mechanical properties, biological compatibility, and freedom from transmissible diseases.

The Matrix Patch™ equine is shipped in an antibiotic solution and can be stored at 4 – 8 °C for up to 18 months. The patch is available off-the-shelf and, except for a short rinse to remove the antibiotics, can be used without further preparation.

In Europe the Matrix Patch™ equine is available in the following sizes:

3×3 cm, 5×5 cm, 8×4 cm, 8×8 cm, 10×2 cm, 10×5 cm.

 **KALTEQ** &  **Abbott**

New collaboration in the field of Cardiac Surgery

www.kalteq.com



SUPPORT THE CHANGE WITH US



ECLS



CARDIOPULMONARY



WOUND & BLOOD
MANAGEMENT



EUROSETS
EVERY LIFE MATTERS

IMEMA

SUPPLYING EXCELLENCE since 1983



www.imema.gr

BOOTH #1:
GE HEALTHCARE

BOOTH #2:
EUROSETS

BOOTH #3:
BERLIN HEART

