

## **Prof. Dr. Med. ENRICO FERRARI**

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University Hospital of Zurich  
Rämistrasse 100  
8091 Zurich, Switzerland.  
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### **Current position and academic degree**

- Senior Cardiovascular Surgeon at Cardiocentro Ticino, Lugano, Switzerland (from 2015)
- Assistant Professor (PD) - University of Italian Switzerland (USI) (from 2019)
- Cardiovascular Surgeon (40%) and Cardiovascular Research Director. University Hospital of Zurich, Switzerland (from 2020)
- Adjunct Professor of Surgery – Medical School at University of Zurich, Switzerland (from 2020)

### **Academic career**

- Adjunct Professor of Surgery - University of Zurich, Switzerland (from 2020)
- Assistant Professor (PD) – University of Italian Switzerland (USI) (from 2019)
- Assistant Professor (PD) – University Hospital of Lausanne, Switzerland (2011-2018)

### **Qualifications**

- European Board of Thoracic and Cardiovascular Surgery (FETCS) 2005
- Swiss Board of Cardiovascular Surgery (FMH) 2003  
Specialty: *Cardiac Surgery and Great Thoracic Vessels*
- University of Padova, School of Medicine. Padova, Italy 2002  
Specialty: *Cardiac Surgery – 70/70 cum Laude*
- University of Turin, School of Medicine. Turin, Italy – (Dr. Med) 1997  
Qualification: *Graduation on Medical Degree – 110/110*

## Working experience

- University Hospital of Zurich (40%) since 2020  
Senior Cardiovascular Surgeon and Adjunct Professor  
Cardiovascular Research Director
  - *Minimal invasive valve surgery*
  - *New aortic and mitral valve technologies.*
  - *Basic and clinical Cardiovascular Research.*
- Cadiocentro Ticino, Lugano, Switzerland since 2015  
Senior Cardiovascular Surgeon
  - *Heart-Team Coordinator for surgical transcatheter valves (TAVI).*
  - *New aortic and mitral valve technologies.*
  - *Basic and clinical Cardiovascular Research.*
  - *Supervisor of trainees and fellows.*
- University Hospital of Lausanne, Switzerland 2003-2015  
Médecin Associé and Assistant Professor (PD).
  - *Heart-Team Coordinator for surgical transcatheter valves (TAVI).*
  - *New aortic and mitral valve technologies.*
  - *Minimally-invasive valve procedures and hybrid coronary procedures*
  - *Basic and clinical Cardiovascular Research.*
  - *Supervisor of trainees and fellows.*
- Sion City Hospital, Sion, Switzerland 2011-2014  
Responsible of Cardiac Surgery Unit.
  - *Surgical activity management.*
  - *Minimally invasive surgery.*
  - *Supervisor of trainees and fellows.*
- Catharina Hospital, Eindhoven, Netherlands 2001-2003  
Assistant in Cardiac Surgery
- University Hospital of Padova, Italy 1998-2001  
Trainee in Cardiovascular Surgery

## Surgical experience

More than 3500 surgical procedures performed in the field of valve surgery, coronary surgery and major vascular surgery between 2000 and 2020. Advanced surgical experience and expertise on coronary revascularization with arterial grafts, minimally invasive aortic and mitral valve procedures, and aortic valve replacement with transcatheter procedures (TAVI). Leader in the development and clinical use of innovative heart valve technologies such as rapid deployment aortic valve systems and sutureless valves. Advanced experience on thoracic endovascular aorta repair (TEVAR).

## Research

- 2010-2011. New transcatheter stent-valve applications: the transapical approach for minimal invasive mitral procedure (FNS grant application).
- 2011-2013. Clinical and basic science investigations on transapical TAVR and new transcatheter mitral devices.
- 2013-2014. Long-term durability of biological heart valves with the Edwards Perimount valve (FU 1990 to 2013).
- 2013-2015. Mid-term results of rapid-deployment aortic bioprosthesis (INTUITY valve, Edwards Lifesciences) – grant from Industry
- 2013-2014. Apical closure device. Feasibility tests. Development of the device in partnership with industry – grant from industry.
- 2013-2015. TF vs TA TAVR procedures at University of Lausanne, Switzerland. Retrospective clinical study.
- 2014-2016. Use of 3D printers to assess transcatheter valve size during planned TAVR procedures.
- 2014-2016. Transcatheter aortic root procedure. Bench tests with 3D printed aortic root models.
- 2014-2016. Apical closure device. Stress tests in a minimally invasive animal setting. Partnership with industry – grant from industry.
- 2015-2017. Long-term durability of Edwards Perimount mitral bioprosthesis (FU 2000-2015).
- 2016-2017. New surgical technique: annulus stabilization technique for rapid-deployment aortic valve implantation (FU 2015-2019)
- 2017-2018. Apical closure device. Tests in animals in a full-percutaneous setting at University of Zurich, Switzerland. Partnership with industry.
- 2016-2017. Apical closure device for TA-TAVR. Long-term tests in animals (full-percutaneous). Partnership with industry.
- 2016-2019. DuraGraft solution for preserving vascular grafts in CABG. Multicentre clinical registry. PI for site.
- 2016-2019. Long-term follow-up of BIMA grafts for CABG (FU 2001-2016).
- 2017-2018. Long-term follow-up and valve performance of Perimount Magna vs Hancock-II aortic valve replacement (FU 2000-2016).
- 2017-2019. Development of a new concept for transcatheter aortic root replacement (TARR technique). Swiss Grant from SHF (90000 chf).
- 2019-2020. Research on exosomes expression in cardiac surgery patients developing postoperative vasoplegia.
- 2018-2019. Research on spontaneous apoptosis in vein samples for CABG protected with saline, autologous blood or Duragraft storage solution.
- 2019-2021. Computational model analysis of coronary blood flow through the TARR technology. Partnership with University of Pavia.
- 2019-2020. Self-expanding bidirectional flow cannula for percutaneous ECMO treatment in cardiogenic shock.
- 2020-2021. hemodynamic assessment of TARR technology in a pulsatile bench test model.

## Editorial activity

- Associate Editor European Journal of Cardio-thoracic Surgery (EJCTS) since 2017
- Associate Editor Interactive Cardiovascular and Thoracic Surgery (ICVTS) 2013-2017
- Assistant Editor European Journal of Cardio-thoracic Surgery (EJCTS) 2007-2013
- Assistant Editor Interactive Cardiovascular and Thoracic Surgery (ICVTS) 2010-2013
- Editorial Board Multimedia Manual of Cardio-Thoracic Surgery 2014-2017
- Editorial Board member Journal of Visualized Surgery since 2015
- Editorial Board member Journal of Clinical Cardiology and Cardiac Therapy since 2016
- Editorial Board member GSL Journal of Cardiovascular Diseases since 2017
- Editorial Board member Annals of Cardiovascular Surgery since 2017
- Editorial Board member Journal of Cardiology Research since 2018
- Editorial Board member Journal of Integrative Cardiology since 2016

## Languages

- **Italian and French:** mother language
- **English:** fluent
- **German and Spanish:** Basic level

## Recent scientific publications (2015-2020)

### 2015

87) **Ferrari E**, Locca D, Berdajs D, Marcucci C, Gronchi F, Lavanchy J, Prêtre R, Tozzi P  
Use of a VSD occluder for apical closure in transapical aortic valve replacement.

Innovations. 2015;10:68-70

PMID: 25621876

88) Li L, Abdel-Sayed S, Berdajs S, **Ferrari E**, von Segesser LK.

Venous cannula performance assessment in a realistic caval tree model

Eur J Cardiothorac Surg. 2015;20:194-199

PMID: 25368132

89) **Ferrari E**, von Segesser LK, Berdajs D.

Improving coronary artery bypass graft durability: use of the external saphenous vein graft support.

Multimed Man Cardiothorac Surg. 2015. Pii: mmv005. Doi: 10.1093/mmcts/mmv005.

PMID: 25976117

90) **Ferrari E**, Siniscalchi G, Tozzi P, von Segesser LK.

Aortic annulus stabilization technique for rapid deployment aortic valve replacement.

Innovations. 2015;10:360-362

PMID: 26575385

91) **Ferrari E**, Berdajs D, Tozzi P, Siniscalchi G, von Segesser LK.  
Apical closure device for transapical valve procedures.

Interact Cardiovasc Thorac Surg. 2015;21:561-564

PMID: 26265071

92) Fournier S, Monney P, **Ferrari E**, Lglesias JF, Roguelov C, Zuffi A, Eeckhout E, Muller O.  
Transcatheter aortic valve implantation: update on indications.

Rev Med Suisse. 2015;11:1197-1200

PMID: 26182639

94) Binder RK, Stortecky S, Heg D, Tueller D, Jeger R, Toggweiler S, Pedrazzini G, Amann FW, **Ferrari E**, Noble S, Nietlispach F, Maisano F, Räber L, Roffi M, Grünenfelder J, Jüni P, Huber C, Windecker S, Wenaweser P.

Procedural Results and Clinical Outcomes of Transcatheter Aortic Valve Implantation in Switzerland: An Observational Cohort Study of Sapien 3 Versus Sapien XT Transcatheter Heart Valves.

Circ Cardiovasc Interv. 2015 Oct;8(10). pii: e002653. doi:

10.1161/CIRCINTERVENTIONS.115.002653

PMID: 26453687

95) Samim D, Tozzi P, **Ferrari E**

Surgical outcome after isolated on-pump and off-pump anterior descending coronary revascularization.

Swiss Med Wkly. 2015;145:w14239. doi:10.4414/smw.2015.14239.

PMID: 26709551

## 2016

96) Berdajs D, Mosbahi S, Forro Z, Gerber C, **Ferrari E**, Charbonnier D, von Segesser LK.

Numerical analysis of the aortic root 3-dimensional aortic root morphology during the cardiac cycle.

Eur J Cardiothorac Surg. 2016;49:1213-1221

PMID: 26354961

97) **Ferrari E**

Apical access and closure devices for transapical transcatheter heart valve procedures.

Swiss Med Wkly 2016.22;146:w14237. doi: 10.4414/smw.2016.14237.

PMID: 26900765

98) Gallo M, Dvir D, Demertzis S, Pedrazzini G, Berdajs D, **Ferrari E**

Transcatheter valve-in-valve implantation for degenerated bioprosthetic aortic and mitral valves.

Expert Rev Med Devices. 2016;13:749-758

PMID: 27359372

99) **Ferrari E**, Muller O, Demertzis S, Moccetti M, Moccetti T, Pedrazzini G, Eeckhout E.

Transaortic transcatheter aortic valve replacement through a right mini-thoracotomy with balloon-expandable Sapien™ 3 valve.

Multimed Man Cardiothorac Surg. 2016 Jul 8;2016. pii: mmw011. doi: 10.1093/mmcts/mmw011

PMID: 27401072

100) **Ferrari E**, Dvir D, Guerrero M

Transcatheter mitral valve replacement in degenerated calcified native mitral valves: is the currently available technology suitable?

Eur J Cardiothorac Surg. 2016;50:391-395

PMID: 27247377

101) Guerrero M, Dvir D, Himbert D, Urena M, Eleid M, Wang DD, Greenbaum A, Mahadevan VS, Holzhey D, O'Hair D, Dumonteil N, Rodes-Cabau J, Piazza N, Palma JH, DeLago A, **Ferrari E**, Witkowski A, Wendler O, Kornowski R, Martinez-Clark P, Ciaburri D, Shemin R, Alnasser S, McAllister D, Bena M, Kerendi F, Pavlides G, Sobrinho JJ, Attizzani GM, George I, Nickenig G, Fassa AA, Cribier A, Bapat V, Feldman T, Rihal C, Vahanian A, Webb J, O'Neill W.

Transcatheter mitral valve replacement in native mitral valve disease with severe mitral annular calcification: results from the first multicenter global registry.

JACC Cardiovasc Interv. 2016;9:1361-1371

PMID: 27388824

102) von Segesser L, Marinakis S, Berdajs D, **Ferrari E**, Wilhelm M, Maisano F

Prevention and therapy of leg ischaemia in extracorporeal life support and extracorporeal membrane oxygenation with peripheral cannulation.

Swiss Med Wkly. 2016.146:w14304. doi: 10.4414/smw.2016.14304

PMID: 27153458

103) von Segesser LK, Berdajs D, Abdel-Sayed S, Tozzi P, **Ferrari E**, Maisano F

New, Virtually Wall-less Cannulas Designed for Augmented Venous Drainage in Minimally Invasive Cardiac Surgery.

Innovations. 2016;11:278-281

PMID: 27561178

105) Pilgrim T, Stortecky S, Nietlispach F, Heg D, Tueller D, Toggweiler S, **Ferrari E**, Noble S, Maisano F, Jeger R, Roffi M, Grünenfelder J, Huber C, Wenaweser P, Windecker S.

Repositionable Versus Balloon-Expandable Devices for Transcatheter Aortic Valve Implantation in Patients With Aortic Stenosis.

J Am Heart Assoc. 2016 Nov 17;5(11). pii: e004088

PMID: 27856487

106) Putzu A, Capelli B, Belletti A, Cassina T, **Ferrari E**, Gallo M, Casso G, Landoni G.

Perioperative statin therapy in cardiac surgery: a meta-analysis of randomized controlled trials.

Critical Care 2016;20:395

PMID: 27919293

2017

107) Franciosi G, Trunfio R, **Ferrari E**, Demertzis S.

Yacoub procedure to treat giant pulmonary artery aneurysm.

Eur Heart J. 2017;38:3393-3394

PMID: 27694192

108) **Ferrari E**, Franciosi G, Clivio S, Faletra F, Moccetti M, Moccetti T, Pedrazzini G, Demertzis S.  
Stent valve implantation in conventional redo aortic valve surgery to prevent patient-prosthesis mismatch.

Interact Cardiovasc Thorac Surg. 2017;24:319-323

PMID: 28040758

109) Tozzi P, Hayoz D, Antona C, Fiore GB, Siniscalchi G, **Ferrari E**, Baeriswyl G, Vismara R.  
Mastering mitral leaflets coaptation after valve repair with adjustable annuloplasty ring: prove of concept in mock loop study.

ASAIO J. 2017;63:168-173

PMID: 27861426

110) Noble S, Stortecky S, Heg D, Tuller D, Jeger R, Toggweiler S, **Ferrari E**, Nietlispach F, Taramasso M, Maisano F, Grünenfelder J, Jüni P, Huber C, Carrel T, Windecker S, Wenaweser P, Roffi M.

Comparison of procedural and clinical outcomes with Evolut R versus Medtronic CoreValve: a Swiss TAVI registry analysis.

EuroIntervention. 2017;12:e2170-e2176

PMID: 28067197

111) **Ferrari E**, Demertzis S, Angelella J, Berdajs D, Tozzi P, Moccetti T, Maisano F, von Segesser LK.

Apical closure device for full-percutaneous transapical valve implantation: stress-test in an animal model.

Interact Cardiovasc Thorac Surg. 2017;24:721-726

PMID: 28329078

112) Gallo M, Demertzis S, Gerosa G, **Ferrari E**.

Leaflet ipomobility after transcatheter aortic valve replacement: thrombosis or mechanical factors? A possible pathophysiologic pattern.

J Heart Valve Dis. 2017;26:9-11

PMID: 28544825

113) Berdajs D, Mosbahi S, **Ferrari E**, Charbonnier D, von Segesser LK.

Aortic valve pathology as predictive factor for acute aortic dissection.

Ann Thorac Surg. 2017;104:1340-1348

PMID: 28587739

114) Caporali E, Pedrazzini G, Demertzis S, **Ferrari E**.

Transcatheter aortic valve implantation for recurrent Valsalva sinus re-dissection and severe aortic

regurgitation shortly after surgery for type-A aortic dissection.

Interact Cardiovasc Thorac Surg. 2017;25:839-841

PMID: 28535198

115) **Ferrari E**, Roduit C, Salamin P, Caporali E, Demertzis S, Tozzi P, Berdajs D, von Segesser LK. Rapid-deployment aortic valve replacement vs standard bioprosthesis implantation.

J Card Surg. 2017;32:322-327

PMID: 28493342

116) Putzu A, Gallo M, Martino EA, **Ferrari E**, Pedrazzini G, Moccetti T, Landoni G, Cassina T. Coronary artery bypass graft surgery versus percutaneous coronary intervention with drug-eluting stents for left main coronary artery disease: a meta-analysis of randomized trials.

Int J Cardiol. 2017;241:142-148

PMID: 28438354

117) **Ferrari E**, Eeckhout E, Keller S, Muller O, Tozzi P, Berdajs D, von Segesser LK.

Transfemoral versus transapical approach for transcatheter aortic valve implantation: hospital outcome and risk factor analysis.

J Cardiothorac Surg. 2017;12:78

PMID: 28874169

118) Fournier S, Monney P, Roguelov C, **Ferrari E**, Eeckhout E, Muller O, Durko A, Van Mieghem NM, Kappetein AP, Margey R.

How should I treat an Edwards SAPIEN 3 aortic valve embolisation during a transaortic transcatheter aortic valve implantation?

EuroIntervention. 2017;13:495-498

PMID: 28735254

119) Pedrazzini GB, **Ferrari E**, Zellweger M, Genoni M.

Heart-Team: joint position of the Swiss society of cardiology and the Swiss society of cardiac surgery. Thorac Cardiovasc Surg. 2017; 65:519-523

PMID: 28922674

120) Yoon SH, Schmidt T, Bleiziffer S, Schofer N, Fiorina C, Munoz-Garcia AJ, Yzeiraj E, Amat-Santos IJ, Tchetché D, Jung C, Fujita B, Mangieri A, Deutsch MA, Ubben T, Deuschl F, Kuwata S, De Biase C, Williams T, Dhoble A, Kim WK, **Ferrari E**, Barbanti M, Vollema EM, Miceli A, Giannini C, Attizzani GF, Kong WKF, Gutierrez-Ibanes E, Jimenez Diaz VA, Wijesundera HC, Kaneko H, Chakravarty T, Makar M, Sievert H, Hengstenberg C, Prendergast BD, Vincent F, Abdel-Wahab M, Nombela-Franco L, Silaschi M, Tarantini G, Butter C, Ensminger SM, Hildick-Smith D, Petronio AS, Yin WH, De Marco F, Testa L, Van Mieghem NM, Whisenant BK, Kuck KH, Colombo A, Kar S, Moris C, Delgado V, Maisano F, Nietlispach F, Mack MJ, Schofer J, Schaefer U, Bax JJ, Frerker C, Latib A, Makkar RR.

Transcatheter aortic valve replacement in pure native aortic valve regurgitation.

J Am Coll Cardiol. 2017;70:2752-2763.

PMID: 29191323



121) Pilgrim T, Franzone A, Stortecky S, Nietlispach F, Haynes AG, Tueller D, Toggweiler S, Muller O, **Ferrari E**, Noble S, Maisano F, Jeger R, Roffi M, Grünenfelder J, Huber C, Wenaweser P, Windecker S.

Predicting mortality after transcatheter aortic valve replacement: external validation of the transcatheter valve therapy registry model.

Circ Cardiovasc Interv. 2017 Nov;10(11). pii: e005481. doi: 10.1161/CIRCINTERVENTIONS.117.005481.

PMID: 29127116

## 2018

122) Wang C, Regar E, Lachat M, von Segesser LK, Maisano F, **Ferrari E**.

Endovascular treatment of non-dissected ascending aorta disease: a systematic review.

Eur J Cardiothorac Surg. 2018;53:317-324

PMID: 28958041

123) Gallo M, Putzu A, Conti M, Pedrazzini G, Demertzis S, **Ferrari E**.

Embolic protection devices for transcatheter aortic valve replacement.

Eur J Cardiothorac Surg. 2018;53:1118-1126

PMID: 29253108

124) Wang C, Lachat M, Regar E, von Segesser LK, Maisano F, **Ferrari E**.

Suitability of the porcine aortic model for transcatheter aortic root repair.

Interact Cardiovasc Thorac Surg. 2018;26:1002-1008

PMID: 29415164

125) **Ferrari E**, Biasco L, Faletra F, Banai S, Cheung A, Moccetti M, Pedrazzini G, Demertzis S, Moccetti T.

Tiara valve implantation in a patient with previously implanted mono-disk mechanical aortic prosthesis.

Semin Thorac Cardiovasc Surg. 2018;30:160-163

PMID: 29518534

126) **Ferrari E**, Caporali E, Pedrazzini G, Demertzis S.

Trans-carotid access for TAVR allows safe and rapid exchange for bailout valve-in-valve procedures.

J Card Surg. 2018;33:4-6

PMID: 29377318

127) Tozzi P, Siniscalchi G, **Ferrari E**, Kirsch M, Hayoz D.

Percutaneous increase of mitral leaflet coaptation length after mitral valve repair: results from a preclinical study.

Interact Cardiovasc Thorac Surg. 2018;26:681-686

PMID: 29244156

128) Bleiziffer S, Erlebach M, Simonato M, Pibarot P, Webb J, Capek L, Windecker S, George I, Sinning JM, Horlick E, Napodano M, Holzhey DM, Petursson P, Cerillo A, Bonaros N, **Ferrari E**,

Cohen MG, Baquero G, Jones TL, Kalra A, Reardon MJ, Chhatriwalla A, Gama-Ribeiro V, Alnasser S,

Van Mieghem NM, Rustenbach CJ, Schofer J, Garcia S, Zeus T, Champagnac D, Bekeredjian R, Kornowski R, Lange R, Dvir D.  
Incidence, Predictors and Clinical Outcomes of Residual Stenosis after Aortic Valve-in-Valve.  
Heart. 2018;104:828-834

PMID: 29352008

129) Berdajs D, Mosbahi S, Charbonnier D, **Ferrari E**, von Segesser LK.  
Impact of the bicuspid aortic valve on aortic root hemodynamics: three-dimensional  
computed fluid dynamics simulation.  
Interact Cardiovasc Thorac Surg. 2018;27:446-454

PMID: 29579303

130) Putzu A, **Ferrari E**, Gallo M, Cassina T, Landoni G.  
Randomized Evidence on Perioperative Statin Therapy in Cardiac Surgery.  
Ann Thorac Surg. 2018;105:665-666

PMID: 29362180

131) **Ferrari E**, von Segesser LK, Berdajs D, Muller L, Halbe M, Maisano F.  
Clinical experience in minimally invasive cardiac surgery with virtually wall-less venous cannulas.  
Innovations. 2018;13:104-107

PMID: 29677020

132) Berdajs D, Mosbahi S, Eckstein F, Reuthebuch O, Grapow M, **Ferrari E**, von Segesser LK.  
Impact of aortic root annuloplasty on 3D aortic root geometry.  
J Surg Res. 2018;225:45-53

PMID: 29605034

133) Von Segesser LK, Berdajs D, Abdel-Sayed S, **Ferrari E**, Halbe M, Wilhelm M, Maisano F.  
New, optimized, dual lumen cannula for veno-venous ECMO  
Perfusion. 2018;33:18-23

PMID: 29788840

134) Guerrero M, Urena M, Himbert D, Wang DD, Eleid M, Kodali S, George I, Chakravarty T, Mathur M, Holzhey D, Pershad A, Fang HK, O'Hair D, Jones N, Mahadevan VS, Dumonteil N, Rodés-Cabau J, Piazza N, **Ferrari E**, Ciaburri D, Nejjari M, DeLago A, Sorajja P, Zahr F, Rajagopal V, Whisenant B, Shah PB, Sinning JM, Witkowski A, Eltchaninoff H, Dvir D, Martin B, Attizzani GF, Gaia D, Nunes NSV, Fassa AA, Kerendi F, Pavlides G, Iyer V, Kaddissi G, Witzke C, Wudel J, Mishkel G, Raybuck B, Wang C, Waksman R, Palacios I, Cribier A, Webb J, Bapat V, Reisman M, Makkar R, Leon M, Rihal C, Vahanian A, O'Neill W, Feldman T.  
1-Year Outcomes of Transcatheter Mitral Valve Replacement in Patients with Severe Mitral Annular Calcification.

J Am Coll Cardiol. 2018;71:1841-1853

PMID: 29699609

135) Wahlers TCW, Andreas M, Rahmanian P, Candolfi P, Zemanova B, Giot C, **Ferrari E**, Laufer G.

Outcomes of a rapid deployment aortic valve versus its conventional counterpart: a propensity-matched analysis.

Innovations 2018;13:177-183

PMID: 29912142

136) Putzu A, Gallo M, **Ferrari E**, Cassina T, Landoni G.

Statin Therapy before Cardiac Surgery: Neutral or Detrimental Effects?

Anesthesiology. 2018;128:685-686

PMID: 29438254

137) Caporali E, Van Den Berg JC, **Ferrari E**.

Endovascular treatment of complex aortic injuries 40 years after surgery for aortic coarctation.

J Vasc Surg Cases Innov Tech. 2018;4:181

PMID: 29942917

138) Cheung A, Webb J, Schaefer U, Moss R, Deuschl F, Conradi L, Denti P, Latib A, Kiaii B, Bagur R, **Ferrari E**, Moccetti M, Biasco L, Blanke P, Ben-Gal Y, Banai S.

Transcatheter mitral valve replacement in patients with previous aortic valve replacement.

Circ Cardiovasc Interv. 2018; 11(10):e006412. doi: 10.1161/CIRCINTERVENTIONS.118.006412

PMID: 30354628

139) Biasco L, Pedrazzini G, De Backer O, Klersy C, Bellesi L, Presilla S, Badini M, Faletra F, Pasotti E, **Ferrari E**, Demertzis S, Moccetti T, Aviano D, Moccetti M.

Radiological exposure of patients undergoing transcatheter aortic valve implantation in contemporary practice.

J Cardiovasc Med. 2018;19:579-585

PMID: 30045085

140) Biasco L, **Ferrari E**, Pedrazzini G, Faletra F, Moccetti T, Petracca F, Moccetti M.

Access sites for TAVI: patient selection criteria, technical aspects, and outcomes.

Front. Cardiovasc Med. 2018;5:88

PMID: 30065928

141) Torre T, Leo LA, Demertzis S, **Ferrari E**.

Giant Left Coronary Artery Aneurysms and Concomitant Coronary Disease.

Ann Cardiovasc Surg. 2018;1:1005

142) Gallo M, Demertzis S, Torre T, **Ferrari E**.

Direct surgical transcatheter heart valve implantation in a calcified mitral valve.

Multimed Man Cardiothorac Surg. 2018;2018. doi: 10.1510/mmcts.2018.053.

PMID: 30285323

## 2019

143) **Ferrari E**, Piazza G, Scoglio M, Berdajs D, Tozzi P, Maisano F, von Segesser LK.

Suitability of 3D-printed root models for the development of transcatheter aortic root repair

technologies.

ASAIO J. 2019;65:874-881

PMID: 30325848

144) Conti M, Vandenberghe S, Marconi S, **Ferrari E**, Romarowski RM, Morganti S, Auricchio F, Demertzis S.

Reversed auxiliary flow to reduce embolism risk during TAVI: a computational simulation and experimental study.

Cardiovasc Eng Technol. 2019;10:124-135

PMID: 30341729

145) Mosbahi S, Stak D, Gravestock I, Burgstaller JM, Steurer J, Eckstein F, **Ferrari E**, Berdajs DA.

A systemic review and meta-analysis: Bentall versus David procedure in acute type A aortic dissection.

Eur J Cardiothorac Surg. 2019;55:201-209

PMID: 30084969

146) Stortecky S, Franzone A, Heg D, Tueller D, Noble S, Jeger R, Toggweiler S, **Ferrari E**, Nietlispach F, Taramasso M, Maisano F, Grünenfelder J, Muller O, Huber C, Roffi M, Carrel T, Wenaweser P, Windecker S.

Temporal trends in adoption and outcomes of transcatheter aortic valve implantation: a SwissTAVI Registry analysis.

Eur Heart J Qual Care Clin Outcomes. 2019;5:242-251

PMID: 30304513

147) **Ferrari E**, Stortecky S, Heg D, Muller O, Nietlispach F, Tueller D, Toggweiler S, Noble S, Maisano F, Roffi M, Jeger R, Grünenfelder J, Huber C, Windecker S, Wenaweser P.

The hospital results and 1-year outcomes of transcatheter aortic valve-in-valve procedures and transcatheter aortic valve implantations in native valves: results from the Swiss-TAVI Registry.

Eur J Cardiothorac Surg. 2019;56:55-63

PMID: 30689870

148) Hong N, Lu Y, Hu H, Sun J, Sun K, von Segesser LK, Berdajs D, Chen S, **Ferrari E**.

Self-expanding apical closure device for full-percutaneous closed-chest transapical valve procedures with large-sized introducer sheaths: first study in an animal model.

Interact Cardiovasc Thorac Surg. 2019;29:793-799

PMID: 31369123

149) Caporali E, Bonato R, Klersy C, **Ferrari E**.

Hemodynamic performance and clinical outcome of pericardial Perimount Magna and porcine Hancock II valves in aortic position.

J Card Surg. 2019;34:1055-1061

PMID: 31389647

150) **Ferrari E**, Gallo M, Wang C, Zhang L, Taramasso M, Maisano F, Pirelli L, Berdajs D, von Segesser LK.

Three-dimensional printing in adult cardiovascular medicine for surgical and transcatheter procedural

planning, teaching and technological innovation.  
Interact Cardiovasc Thorac Surg. 2019;30:203-214  
PMID: 31633170

151) Abdel-Sayed S, Abdel-Sayed P, Berdajs D, **Ferrari E**, Halbe M, von Segesser LK, Maisano F.  
Effect of blood viscosity on the performance of virtually wall-less venous cannulas.  
Perfusion. 2019;  
PMID: 31696777

152) Cioffi, Paiocchi VL, Leo LA, **Ferrari E**, Faletra FF.  
Capillary Hemangioma of the left ventricle.  
J Cardiovasc Echogr. 2019;29:126-128  
PMID: 31728304

153) Abdel-Sayed S, **Ferrari E**, Abdel-Sayed P, Wilhelm M, Halbe M, von Segesser LK, Maisano F, Berdajs D.  
New bidirectional arterial perfusion device.  
Int J Artif Organs. 2020;  
PMID: 32031047

## 2020

154) **Ferrari E**, Scoglio M, Piazza G, Maisano F, von Segesser LK, Berdajs D.  
Transcatheter aortic root replacement with chimney grafts for coronary perfusion: a preliminary test in a three-dimensional-printed root model.  
Interact Cardiovasc Thorac Surg. 2020 Apr 17:ivaa056. doi: 10.1093/icvts/ivaa056.  
PMID: 32303058

155) Biasco L, Cerrato E, Tersalvi G, Pedrazzini G, Wilkins B, Faletra F, **Ferrari E**, Demertzis S, Senatore G, Di Leo A, Varbella F, De Backer O, Nombela Franco L.  
Worldwide survey on clinical and anatomical factors driving the choice of transcatheter aortic valve prostheses.  
Frontiers in Cardiovascular Medicine. 2020;7:38  
PMID: 32266292

156) Berdajs D, von Segesser, Maisano F, Milano G, **Ferrari E**  
Performance characteristics of the new EUROSETS magnetically suspended centrifugal pump.  
Perfusion. 2020;  
PMID: accepted

157) **Ferrari E**, Wang C, Berdajs D, von Segesser LK.  
Chimney grafts in renal arteries: a clinical model for coronary perfusion in future transcatheter aortic root repair technique.  
J Cardiothorac Surg. 2020;  
PMID: 32517779

158) Stortecky S, Heg D, Tueller D, Pilgrim T, Muller O, Noble S, Jeger R, Toggweiler S, **Ferrari E**, Taramasso M, Maisano F, Hoeller R, Wenaweser P, Nietlispach F, Widmer A, Huber C, Roffi M, Carrel T, Windecker S, Conen A.

Infective endocarditis after transcatheter aortic valve replacement: a nationwide cohort-study.

JACC. 2020;

PMID: accepted

159) Wang C, von Segesser LK, Maisano F, **Ferrari E**

Catheter-based treatment of the dissected ascending aorta: a systematic review.

Eur J Cardiothorac Surg. 2020;

PMID: accepted

160) Lu H, Fournier S, Namasivayam J, Roguelov C, **Ferrari E**, Eechkout E, Monney P, Tozzi P, Marcucci P, Muller O, Mattias K.

Transapical approach versus transcervical approach for transcatheter aortic valve replacement: a retrospective monocentric study.

Interact Cardiovasc Thorac Surg. 2020;

PMID: accepted

161) Miura M, Tagliari AP, Gavazzoni M, Russo G, Pozzoli A, Scianna S, Sromicki J, Savic V, Lin S, Kuwata S, Zuber M, Taramasso M, **Ferrari E**, Maisano F.

Continuous hemodynamic monitoring improves clinical outcomes in transcatheter edge-to-edge mitral valve repair.

EHJ. 2020;

PMID: submitted (FM)

162) Schmiady MO, Hofmann M, Halbe M, Tilburg K, Aser R, Mestres CA, Maisano F, **Ferrari E**.

Initiation of an inter-hospital ecmo transfer program for critically ill COVID-19 patients: bringing ECMO support to peripheral hospitals

Interact Cardiovasc Thorac Surg. 2020;

PMID: accepted

163) Miura M, Ho EC, Tagliari AP, Russo G, Pozzoli A, Gavazzoni M, Scianna S, Sromicki J, Savic V, Kuwata S, Zuber M, Taramasso M, **Ferrari E**, Maisano F.

Update on the clinical impact of elevated mitral valve pressure gradient in patients undergoing transcatheter edge-to-edge mitral valve repair.

JACC. 2020;

PMID: submitted (MM)

164) Miura M, Tagliari AP, Ho E, Russo G, Pozzoli A, Gavazzoni M, Scianna S, Sromicki L, Savic V, Kuwata S, Zuber M, Taramasso M, **Ferrari E**, Maisano F.

Mitral valve pressure gradient in patients undergoing MitraClip: is 5mmHg the acceptable threshold?

JACC. 2020;

PMID: submitted (MM)

165) Torre T, **Ferrari E**, Toto F, Gallo M, Surace G, Theologou T, Franciosi G, Demertzis S.

19-year experience with skeletonized bilateral internal thoracic artery for coronary bypass grafting: long-term outcome and risk factors analysis.

Eur J Cardiothorac Surg. 2020;

PMID: submitted (TT)

166) Conti M, Romarowski RM, Ferrarini A, Stochino M, Auricchio F, Morganti S, von Segesser LK, **Ferrari E**.

Patient-specific computational fluid dynamics analysis of transcatheter aortic root replacement with chimney coronary grafts.

Eur J Cardiothorac Surg. 2020;

PMID: submitted (EF)

167) Gavazzoni M, Zuber M, Voci D, Taramasso M, Pozzoli A, Miura M, **Ferrari E**, Maisano F.

Invasive validation and clinical correlates of the echocardiographic assessment of left atrial pressure after MitraClip implantation

JACC. 2020;

PMID: submitted (MG)

168) Tagliari AP, **Ferrari E**, Vicentini L, Schmiady MO, Gennari M, Gavazzoni M, Haager PK, Jörg L, Rickli H, Khattab AA, Blöchliger S, Maisano F, Taramasso M.

Feasibility and safety of cerebral embolic protection device insertion in bovine aortic arch anatomy.

Eurointervention 2020;

PMID: submitted (MT)

169) Torre T, Toto F, Klersy C, Theologou T, Casso G, Gallo M, Surace G, Franciosi G, Cassina T, Demertzis S, **Ferrari E**.

Early predictors of mortality in refractory cardiogenic shock following acute coronary syndrome treated with extracorporeal membrane oxygenator.

. 2020;

PMID: ready for submission (TT)