

CURRICULUM VITAE



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POSITIONS

2023 – present	<i>Head of Department</i> Department of Cardiovascular Surgery Sanador Hospital Bucharest, Romania
2022 – present	<i>Director of the Cardiovascular Diseases Center</i> Department of Cardiovascular Surgery Sanador Hospital Bucharest, Romania
2021 – present	<i>University Professor</i> “Titu Maiorescu” University, Faculty of Medicine Department of Surgery Bucharest, Romania
2020 – 2022	<i>Head of Cardiovascular Surgery Department</i> Sf Constantin Hospital Brasov, Romania
2019 – 2020	<i>Minister of Health</i> Romanian Government Bucharest, Romania
2014 – 2021	<i>Associate Professor</i> University “Lucian Blaga”, Faculty of Medicine Department of Surgery Sibiu, Romania
2013 – 2019	<i>Head of Cardiovascular and Thoracic Surgery Department</i> University “Lucian Blaga”, Faculty of Medicine

	Sibiu, Romania
2010 – 2013	Consultant Cardiovascular Surgeon (Praticien Hospitalier) CH Annecy, France
April 2011	National Contest for Consultants (Praticiens Hospitaliers – PH) in cardiovascular and thoracic surgery National Center Management, Unit MD Paris, France
2008 – 2010	Thoracic Cardiovascular Specialist (Chef de Clinique) Department of Cardiovascular and Thoracic Surgery CHU Grenoble, France
2003 – 2008	Tutor (Moniteur Clinique) Department of Anatomy CHU Grenoble, France
2001 – 2008	Resident Cardiovascular and Thoracic Surgery CHU Grenoble and Toulouse, France
2000 – 2001	University Tutor Thoracic Surgery Service University of Medicine and Pharmacy “Gh.T. Popa” Iasi, Romania

EDUCATION

2014	Master Degree in Health Management Romanian Ministry of Health
2010	National Consultant Exam in Cardiovascular Surgery Paris, France
2009	Specialist Surgeon in Cardiovascular and Thoracic Surgery Diplome d'Etude Specialisee Complementary Qualifiant – DESC French College South, Faculty of Medicine J. Fourier Grenoble, France
2009	PhD Degree Thesis: Optimization of diagnostic and treatment methods in mediastinitis University of Medicine and Pharmacy "Gr. T. Popa " Iasi, Romania
2008	Specialist Surgeon in General Surgery Diplome d'Etudes Specialisees – DES France College South, Faculty of Medicine J. Fourier Grenoble, France
2006	Diploma of Specialist in Thoracic Surgery Faculty of Medicine Bucharest, Romania
2004	Master Degree in Anatomy Faculty of Medicine J. Fourier Grenoble, France
1999	License in Medicine (MD) Thesis: Diagnostic and performing at John Radcliffe Hospital aortic dissection - Oxford; Our experience in ten years

Prof Coordinator Steve Westaby (Oxford, U.K.), Prof. S. Mihalache
Iasi, Romania

1992 ***Bachelor Diploma***
College "Mihai Eminescu"
Iasi, Romania

RESIDENCY AND FELLOWSHIP

2008	Fellowship in Cardiovascular Surgery and Chest Laval University, Quebec, Canada
January 2008	Endovascular Surgery Course – Crossroads Brussels Institute, Belgium
2007	Endovascular Surgery DIU University of Lyon, Marseille, France
2006 – 2008	Resident physician - Vascular Surgery Departement CHU Grenoble, France
2005 – 2006	Resident physician - Cardiac Surgery Departement CHU Grenoble, France
2004 – 2005	Resident physician - Vascular Surgery Departement CHU Grenoble, France
2004	Resident physician - Cardiac Surgery Departement CHU Grenoble, France
2003 – 2004	Resident physician - Traumatology Departement CHU Grenoble, France
2003	Resident physician – Digestiv Surgery Departement CHU Grenoble, France
2001 – 2003	Resident physician – General and Thoracic Surgery Departement CHU Toulouse, France
2002	Admitted at the National Contest for residents (DES) in Paris
2000 – 2001	Resident physician – Thoracic Surgery Departement Iasi, Romania
June – October 1997	Clinical Internship Cardiac Surgery Service Oxford University, USA
1995	Clinical Internship Department of Cardiology and Cardiothoracic Surgery Sheffield Medical School, UK
September 1995	Clinical Internship Department of Cardiothoracic Surgery Edinburg School of Medicine, UK
July 1995	Clinical Internship Clinical Vascular Service Edinburg School of Medicine, UK

November 1994

Myography Course for determining the structure and function of small arteries
Fundamental research
Medical School, Denmark

PUBLICATIONS

Scientific papers

1. Costache, A., Meekel, J. P., Chitic, A., Dumitrescu, S. L., Popa, R., Yeung, K. K., and **Costache, V. S.** (2023). TEVAR, multilayer stents and CERAB procedure for complicated type B aortic dissection: A case report. *Annals of Vascular Surgery – Brief Reports and Innovations*, 3(3), 100213.
2. Biomaterials as Haemostatic Agents in Cardiovascular Surgery: Review of Current Situation and Future Trends Sf.Constantin Hospital Brasov, Romania, March 2022
3. **Costache VS**, Meekel, JP, Costache A, Melnic T, Bucurenciu C, Chitic A, et al. One-year single-center results of the multilayer flow modulator stents for the treatment of type B aortic dissection 2021
4. **Costache VS**, Meekel, JP, Costache, A, Melnic T, Bucurenciu C, Chitic A, Candea G, Solomon C, Yeung KK. One-Year Single-Center Results of the Multilayer Flow Modulator Stents for the Treatment of Type B Aortic Dissection JEndovasc Ther, 2020 March
5. **Costache SV**, Meekel JP, Costache A, Melnic T, Solomon C, Chitic AM, Bucurenciu C, Moldovan H, Antoniac I, Candea G, Yeung KK. Geometric analysis of type B aortic dissections shows aortic remodeling after intervention using multilayer stents. *Materials*, 2020 May 15; 13 (10):E2274. doi: 10.3390/ma13102274
6. Meekel JP, Mattei G, **Costache VS**, Balm R, Blankensteijn JD, Yeung KK. A multilayer micromechanical elastic modulus measuring method in ex vivo human aneurysmal abdominal aortas. *Acta Biomater*. 2019 Sep 15;96:345-353. doi: 10.1016/j.actbio.2019.07.019. Epub 2019 Jul 12. PubMed PMID: 31306785.
7. Sultan S, Kavanagh EP, Veerasingam D, **Costache V**, Elhelali A, Fitzgibbon B, Diethrich E, Hynes N. Kinetic Elephant Trunk Technique, Early Results in Chronic Symptomatic Aortic Dissection Management. *Ann Vasc Surg*. 2018 Nov 23. pii: S0890-5096(18)30851-3. doi: 10.1016/j.avsg.2018.08.083. [Epub ahead of print] PubMed PMID: 30476618.
8. **Costache VS**, Yeung KK, Solomon C, Popa R, Melnic T, Sandu M, Bucurenciu C, Candea G, Santa A, Costache A. Aortic Remodeling After Total Endovascular Aortic Repair With Multilayer Stents: Computational Fluid Dynamics Analysis of Aortic Remodeling Over 3 Years of Follow-up. *J Endovasc Ther*. 2018 Dec;25(6):760-764. doi: 10.1177/1526602818808049. Epub 2018 Oct 24. PubMed PMID: 30354915.
9. Birlutiu V, Birlutiu RM, **Costache VS**. Viridans streptococcal infective endocarditis associated with fixed orthodontic appliance managed surgically by mitral valve plasty: A case report. *Medicine (Baltimore)*. 2018 Jul;97(27):e11260. doi: 10.1097/MD.00000000000011260. PubMed PMID: 29979391; PubMed Central PMCID: PMC6076147.
10. Horatiu Moldovan, Daniela Gheoghita, Iulian Antoniac, Dan Gheorghe, Fabrizio Fiori, Aurel Mohan, Gheorghe Raftu, Cristian Ionel, **Victor Costache** "Bioadhesives Used in Cardiovascular Surgery" *Revista de Chimie* http://www.revistadechimie.ro/article_eng.asp?ID=6627
11. **Costache VS**, Moldovan H, Arsenescu C, Costache A. Aortic valve surgery of the 21st century: sutureless AVR versus TAVI. *Minerva Cardioangiol*. 2018 Apr;66(2):191-197. doi: 10.23736/S0026-4725.17.04558-3. Epub 2017

Nov 20. Review. PubMed PMID: 29160044.

12. Constantinescu V, Matei D, **Costache V**, Cuciureanu D, Arsenescu-Georgescu C. Linear and nonlinear parameters of heart rate variability in ischemic stroke patients. *Neurol Neurochir Pol.* 2018 Mar;52(2):194-206. doi: 10.1016/j.pjnns.2017.10.002. Epub 2017 Oct 11. PubMed PMID: 29110883.
13. Sultan S, Kavanagh EP, Diethrich E, **Costache V**, Sultan M, Jordan F, Hynes N. A clinical review of early outcomes from contemporary flow modulation versus open, fenestrated and branch technologies in the management of thoracoabdominal aortic aneurysm. *Vascular.* 2018 Apr;26(2):209-215. doi: 10.1177/1708538117724933. Epub 2017 Aug 24. Review. PubMed PMID: 28836901.
14. Sultan S, Kavanagh EP, Stefanov F, Sultan M, Elhelali A, **Costache V**, Diethrich E, Hynes N; Global MFM Collaborators. Endovascular management of chronic symptomatic aortic dissection with the Streamliner Multilayer Flow Modulator: Twelve-month outcomes from the global registry. *J Vasc Surg.* 2017 Apr;65(4):940-950. doi: 10.1016/j.jvs.2016.09.059. PubMed PMID: 28342521.
15. Vaislic CD, Fabiani JN, Chocron S, Robin J, **Costache VS**, Villemot JP, Alsac JM, Leprince PN, Untersee T, Portocarrero E, Glock Y, Rousseau H; STRATO Investigators Group. Three-Year Outcomes With the Multilayer Flow Modulator for Repair of Thoracoabdominal Aneurysms: A Follow-up Report From the STRATO Trial. *J Endovasc Ther.* 2016 Oct;23(5):762-72. doi: 10.1177/1526602816653095. Epub 2016 Jun 8.
16. Sultan S, **Costache V**, Ciobanu E, Hynes N. Streamliner Multilayer Flow Modulator for subacute complicated type B dissection using the phantom technique. *J Vasc Surg.* 2016 Jun;63(6):1635-6. doi: 10.1016/j.jvs.2015.10.093. PubMed PMID: 27230245.
17. **Costache V**, *The Use of MFM in the Endovascular Treatment of Complex Aortic Aneurysms and Aortic Dissections*, Article reference: JICC298, Journal of Indian College of Cardiology, December, 2015
18. Sherif Sultan; **Costache V**; Ala Elhelali; Edel P. Kavanagh; Mohammed Sultan; Florian Stefanov; Violet London; Niamh Hynes– “ TCT-810 “*The Phantom Streamliner” as a Therapeutic Option in the Management of Total Body Thoraco-abdominal Aortic Pathology[TAAA]. Early Results.*” – Journal Of the American College of Cardiology; Peripheral Vascular Disease and Intervention; Volume 66, Issue 15_S, October 2015;
19. Vaislic CD, Fabiani JN, Chocron S, Robin J, **Costache VS**, Villemot JP, Alsac JM, Leprince PN, Untersee T, Portocarrero E, Glock Y, Rousseau H; STRATO Investigators Group. One-year outcomes following repair of thoracoabdominal aneurysms with the multilayer flow modulator: report from the STRATO trial. *J Endovasc Ther.* 2014 Feb;21(1):85-95. doi: 10.1583/13-4553R.1. PubMed PMID: 24502488.
20. Chavanis N, Friehe JP, Bougon D, **Costache VS**. I shouldn't be alive: bone marrow biopsy. *Eur J Cardiothorac Surg.* 2013 Mar;43(3):653. doi: 10.1093/ejcts/ezs501. Epub 2012 Sep 17. PubMed PMID: 22986229.
21. **Costache V**, Gaudreau G, Houde C, Rodière M, Hacini R, Blin D, Chavanon O. The association of VAC® therapy, titanium plates osteosynthesis and bilateral pectoral muscle flaps in the management of postoperative mediastinitis in an obese and diabetic patient]. *Ann Chir Plast Esthet.* 2010 Dec;55(6):597-602. doi: 10.1016/j.anplas.2009.08.002. Epub 2009 Nov 25. French. PubMed PMID: 19942336.
22. Gaudreau G, **Costache V**, Houde C, Cloutier D, Montalin L, Voisine P, Baillot R. Recurrent sternal infection following treatment with negative pressure wound therapy and titanium transverse plate fixation. *Eur J Cardiothorac Surg.* 2010 Apr;37(4):888-92. doi: 10.1016/j.ejcts.2009.07.043. Epub 2009 Sep 22. PubMed PMID: 19775906.
23. **Costache V**, Chavanon O, St Raymond C, Sessa C, Durand M, Duret J, Bach V, Porcu P, Hacini R, Aubert A, Chaffanjon P, Cochet E, Brichon PY, Coltey B, Cracowski C, Bertrand D, Schwebel C, Barnoud D, Brambilla E, Lantuéjoul S, Ferretti G, Pin I, Blin D, Pison C; Grenoble Lung Transplantation Group. Dramatic improvement in survival after lung transplantation over time: a single center experience. *Transplant Proc.* 2009 Mar;41(2):687-91. doi: 10.1016/j.transproceed.2008.12.016. PubMed PMID: 19328957.

24. **Costache V**, Lantuejoul S, Stoica S, Fluttaz A, Hacini R, Brichon PY. Giant intracardiac neoplastic thrombus of a large cell neuroendocrine carcinoma of the lung. *Cardiovasc Pathol*. 2010 May-Jun;19(3):e85-7. doi: 10.1016/j.carpath.2008.10.010. Epub 2009 Jan 14. PubMed PMID: 19144545.
25. Porcu P, Chavanon O, Bertrand B, **Costache V**, Carley H, Bach V, Hacini R, Blin D. Giant aneurysm of the proximal segment of the left anterior descending artery in a patient with Behçet's disease—a combined approach. *Can J Cardiol*. 2008 Oct;24(10):e73-4. PubMed PMID: 18841264; PubMed Central PMCID: PMC2643166.
26. **Costache VS**, Chavanon O, Bouvaist H, Blin D. Early Amplatzer occluder closure of a postinfarct ventricular septal defect as a bridge to surgical procedure. *Interact Cardiovasc Thorac Surg*. 2007 Aug;6(4):503-4. Epub 2007 Apr 6.
27. Chavanon O, **Costache V**, Bach V, Kétata A, Durand M, Hacini R, Thony F, Blin D. Preoperative predictive factors for mortality in acute type A aortic dissection: an institutional report on 217 consecutive cases. *Interact Cardiovasc Thorac Surg*. 2007 Feb;6(1):43-6. Epub 2006 Oct 10. PubMed PMID: 17669765.
28. Sessa C, **Costache V**, Porcu P, Thony F, Blin D, Brichon PY, Magne JL. Tracheoinnominate artery fistula: combined endovascular and surgical management by emergency stent-graft placement followed by cryopreserved arterial allograft repair. *Ann Vasc Surg*. 2006 Nov;20(6):731-5. Epub 2006 Jul 8. PubMed PMID: 16830208.
29. **Costache V** Chavanon O, Thony F, Blin D. Aortic arch embolization of an Amplatzer occluder after an atrial septal defect closure: hybrid operative approach without circulatory arrest. *Eur J Cardiothorac Surg*. 2005 Aug;28(2):340-2. PubMed PMID: 15939606.
30. **Costache VS**, Renaud C, Brouchet L, Toma T, Le Balle F, Berjaud J, Dahan M. Complete tracheal rupture after a failed suicide attempt. *Ann Thorac Surg*. 2004 Apr;77(4):1422-3. PubMed PMID: 15063279.
31. Toma CP, Serban DN, **Costache V**, Branisteanu DD. Characteristics and possible mechanisms of low-Na⁺ induced contractions in rat aorta. *Naunyn Schmiedeberg's Arch Pharmacol*. 1995 Jul;352(1):88-93. PubMed PMID: 7477430.
32. **Costache V** et al. I shouldn't be alive, bone marrow biopsy . *European Journal of Cardio-Thoracic Surgery* 0 (2012) 1–1.
33. **Costache V** et al. L'Ostéosynthèse sternale par plaques en titane (OSPT), indications et technique chirurgicale. *Journal de Chirurgie Thoracique et Cardio-Vasculaire* Vol 15, No. 2, (2010) 104-108.
34. **Costache V.**, Chavanon O, Blin D; Percutaneous closure of a postinfarct ventricular septal defect as a bridge to surgical closure. *Interactive CardiovascularThoracic Surgery*,8, 2007
35. V. Bach, O. Chavanon, C. Broux, S. Tramaille, D. Irlès, **V. Costache**, F. Thony and D. Blin ; 'Prise en charge thérapeutique des ruptures traumatiques aiguës de l'isthme aortique. Revue bibliographique' ITBM-RBM, Volume 26, Supplement 1, September 2005, Pages S29-S34
36. JL Faucheron, **Costache V**, Chafanjon Ph ; 'Hernies oesophagiennes, conduite à tenir' *Gastroenterologie Clinique*, October 2003
37. **Costache V.**, Toma C., Branisteanu D.D. (1994) ; "The effects of low-Na⁺ and ouabain on isolated rat aorta contractility" ; *Eur. J. Cell Motility* ; Sept.1994

Book Chapter

1. Moldovan Horatiu, Molnar Adrian, **Costache Victor**, Bontas Ecaterina. "Infective Endocarditis in Intravenous Drug Users: Surgical Treatment". *Infective Endocarditis*, DOI: <http://dx.doi.org/10.5772/intechopen.84708>, Submitted: November 7th 2018Reviewed: January 24th 2019, Published: March 1st 2019

2. Moldovan Horatiu, Molnar Adrian, **Costache Victor**, Bontas Ecaterina. "Surgical Strategy in Tricuspid Endocarditis. Right Heart Pathology from Mechanism to Management". Editors: Silviu Ionel Dumitrescu, Ion C. Tintoiu, Malcolm John Underwood (eds.). ISBN 978-3-319-73763-8. DOI <https://doi.org/10.1007/978-3-319-73764-5> SPRINGER –March 2018, pp743-754.
3. **VS. Costache**, R. Popa, and S. Sultan. " Vascular Surgery in Romania" page 319, Vascular Surgery, Springer, 2017, ISBN 978-3-319-33743-2, DOI 10.1007/978-3-319-33-745-6.
4. **Victor S. Costache**, Horatiu Moldovan, Andreea Costache, Adrian Boiceanu, Adrian Santa, Dan-Mihai Dorobantu, Sherif Sultan. "*Treatment of complex aortic aneurysms and dissections with the Multilayer Flow Modulator: Romanian registry experience*". 2017 EDIZIONI MINERVA MEDICA, ISBN 978-88-7711-891-2.
5. **Costache V** et. All. "*Handbook of Interventions for Structural Heart and Peripheral Vascular Disease*"; page 348, chapter 22:" The Use of MFM in the Endovascular Treatment of Thoracoabdominal Aortic Aneurysm and Aortic Dissection"; Jaypee Brothers Medical Publishers (P) Ltd. ; 2016, ISBN: 978-93-5152-990-3
6. **Costache V**. "History of Myocardial protection, in Dawn and Evolution of Cardiac Procedures", Springer 2012 ISBN 978-88-470-2399-4
7. **Costache V** . "Infection of mediastinal". Junimea 2010 ISBN 978-973-37-1459-0
8. **Costache V** . "Lung cancer" in; "Thoracic Surgery Course"; pp 69-93; ed. Alfa, ISBN 973-8278-00-7; Iasi in 2001.
9. **Costache V**. "Thoraco-abdominal aortic aneurysms Management". College of Vascular Surgery, Grenoble, December 2007.
10. **Costache V**. "Pericardium surgery". Heart and Thoracic Surgery College, Narbonne, October 2007.
11. **Costache V**. "Broken iliac aneurysm - the case", College of Vascular Surgery, Grenoble, December 2006.

CONGRESS

1. **Costache V.S** "Long Term Results After Endovascular Repair Of Type B Aortic Dissection". ISMICS Congress, Istanbul, Turkey, 28-31 May 2025
2. **Costache VS**. "Role of MFM Uncovered Stents to treat type A aortic dissections: Indications, advantages, limitations and results". *VEITH Symposium, New York, USA, 19 – 23 November 2019*
3. **Costache V.S**. "Minimally invasive mitral valve repair, 2019 update ". *East Meets West 2019 Congress ISEVS*, Bucharest, Romania, 26-28 September 2019
4. **Costache V.S**. "Autosuturing technology for minimally invasive aortic valve replacement ". *East Meets West 2019 Congress ISEVS*, Bucharest, Romania, 26-28 September 2019
5. **Costache V.S**. "How I do it – Minimally invasive mitral valve replacement ". *East Meets West 2019 Congress ISEVS*, Bucharest, Romania, 26-28 September 2019
6. **Costache S.V**. "NextCardio Project and Multilayer Stents Redefining the Management of Aortic Dissection". Society for Clinical Vascular Surgery – Boca Raton, 47th, Annual Symposium, March 16-20, 2019
7. **Costache S.V**, Stiru O, Yeung K, Costache A, Solomon C, Melnic T, Sandu M, White R, Wheatley G. "Multi-Layer Flow- modulating Stents for the Treatment of Thoracoabdominal Aortic Dissections". 55th Annual Meeting, Abstract Book, *The Society of Thoracic Surgeons*, STS, San Diego, CA, USA, January 27-29 2019.

8. **Costache S.V.** "Multilayer Flow Modulating (MFM) Stents Are A Safe And Effective Option For Treating Complex Type B Aortic Dissections (TBADs): Based On A 4 Year Experience". *VEITHsymposium* , New York, USA, 13-17 November 2018
9. **Costache SV.** "Next Cardio – Introducing computational fluid dynamics in assessing the efficacy of aortic remodeling after TBAD". *East Meets West 2018 Congress ISEVS*, Romania, 4-6 October 2018
10. **Costache SV.** "Facilitators for minimal invasive aortic valve surgery". *East Meets West 2018 Congress ISEVS*, Romania, 4-6 October 2018
11. **Costache V.** "The role of multilayer flow modulator stents in the endovascular treatment of aortic dissection". The Society of Thoracic Surgery. *STS 54th Annual Meeting January 27, 2018 - January 31, 2018*, Fort Lauderdale, Florida
12. **Costache S.V.,** D.M.Dorobanțu, C.Goia, A.Costache, A.Voican, A.Molnar. "Treatment of abdominal aortic aneurysm with the bifurcated Streamliner device-results from NextCardio Vascular". *East Meets West Congress 2017*, Romania, 19-22 July 2017
13. **Costache S.V,** H.Moldovan, R.Niculescu, S.Balanescu, C.Spanu, D.Popescu, M.Craciun, S.Rurac, G.Vasile, A.Ionescu, T.Cebotaru, C.Popa, M.Militaru, A.Molnar. "Current approaches for complex aortic arch diseases – TEVAR. MFM and hybrid procedures vascular". *East Meets West Congress 2017*, Romania, 19-22 July 2017,
14. **Costache, S.V.,** Juan A. Siordia, Jr., Charles J. Lutz, Jude S. Sauer, Peter A. Knight. "First Two Mitral Valve Replacements via Right Lateral Mini Thoracotomy Using New Automated Annular Suturing Technology 17th The international Society for Minimally Invasive Cardiothoracic Surgery". *ISMICS Annual Scientific Meeting – 7-10 June 2017 Rome, Italy*. <http://meetings.ismics.org/abstracts/2017/CMP3.cgi>
15. **Costache S.V,** S.Sherif, N. Hynes, E.P.Kavanagh, F.Stefanov, A.Elhelali. "Twelve-Month Outcomes of patients treated for chronic symptomatic aortic dissection using the streamliner multilayer flow modulator". 53rd Annual Meeting, Abstract Book, The *Society of Thoracic Surgeons - STS*, Houston, Texas, USA, January 21-25 2017
16. **Costache V.** "Updated experience treating aortic dissections and complex AAAs with MLFM Bare Stents-when do they work and when don't work". *VEITHsymposium*, Cleveland, OH, USA, November 2017,
17. **Costache S. V.** "Endovascular Treatment of Aortic Dissection – Results from NextCardio". International Congress of Endovascular Surgery. *CICE 2017, Sao Paulo, Brazilia* 5-8 aprilie
18. **Costache V.** "Updated experience treating aortic dissections and complex AAAs with MLFM uncovered stents". *VEITHsymposium*, Cleveland, OH, USA, 15-19 November 2016
19. **Costache V.** "Endovascular treatment of the aortic dissection - Kinetic elephant Trunk – Price „Aurel Kaufmann" of the Romanian Society of the Vascular Surgery – SRCV Second Congress of the SRCV, Sibiu, October 2016
20. **Costache V.** "Treatment Of Aortic Dissection And Complex TAAAs With The MLFM Stent: Experience In More Than 30 Patients". 43rd Annual Symposium on Vascular and Endovascular Issues, New York, NY, USA, 18 October 2015
21. **Costache V.** "The future looks bright – Multidisciplinary approach for lung resections in T4 disease with great vessel involvement" The 25th Annual Congress of Romanian Society for Radiotherapy and Medical Oncology, October 2015, Sibiu Romania, Supplement, Volume 21, 2015, ISSN 1844-0770
22. **Costache V.** "The total endovascular elephant trunk: the use of multilayer grafts in the endovascular treatment of aortic dissections". 11th National Congress of the Romanian Society of Cardiovascular Surgery, October 2015, Poiana Brașov, Romania
23. **Costache V.** "The use of multilayer stents in the endovascular treatment of complex aortic aneurysms and aortic dissections". 11th National Congress of the Romanian Society of Cardiovascular Surgery, October 2015, Poiana Brașov, Romania
24. **Costache V.** "Numerical simulation of fluid flow in CoCr multilayer modulators and the impact of flow lamination on the

blood vessel wall affected by aneurism". European Biotechnology Congress May 2015 - Journal of Biotechnology

25. **Costache V.** "Treatment of Aortic Dissection And Complex TAAAs With The MLFM Stent: Experience In More Than 30 Patients" *VEITHsymposium*, 17-21 November 2015
26. **Costache V.** "Treatment of Aortic Dissection and Complex Thoracoabdominal Aneurysm with MFM". International Congress of Endovascular Surgery, CICE 2015, Sao Paolo, Brazil.
27. **Costache V.** "Broadcasted from Galileo Hospital Valinhos/SP (MFM)". International Congress of Endovascular Surgery, CICE 2015, Sao Paolo, Brazil.
28. **Costache V.** "The New MFM Bifurcated Device for Thoracoabdominal Aortic Aneurysm". International Congress of Endovascular Surgery, CICE 2015, Sao Paolo, Brazil
29. **Costache V.**, Ciobanu E., Bosanceanu M, Sherif S, Leatu C, Costache A., Voican A., Melnic T., Popovici I., Florescu N. "Enter the Phantom: Preliminary Results With The Use of The New Bifurcated MFM Device in The Endovascular Treatment of Abdominal and Thoracoabdominal Aneurysms". 64th ESCVS International Congress of the European Society of Cardiovascular and Endovascular Surgery, Istanbul, 26 – 29 March 2015
30. **Costache S.V**, Florescu N., Ciobanu E., Sultan S., Bosanceanu M. "The Use of MFM Technology in the Treatment of Thoracoabdominal Aortic Aneurysm and Aortic Dissection Pathology: A Single Center Experience". 51st Annual Meeting, San Diego, California, January 24-28, 2015
31. **Costache V.**, Tiganescu V. "Numerical simulation of fluid flow in CoCr multilayer modulators and the impact of flow lamination on the blood vessel wall affected by aneurysm". May 2015. Journal of Biotechnology.
32. N. Florescu, Emanuela Ciobanu, Sherif Sultan, V Tiganescu, Cristina Moisei, M Chiloflisch, M Bosanceanu, Sorina Fiat , **V. Costache**. "The use of MFM Technology in the treatment of Thoraco-abdominal aortic aneurysm and aortic Dissection Pathology – A single Center experience" 10th Romanian, Serbian Conference of Surgery, SIBIU, November 2014
33. **Costache S.V**, E. Ciobanu. "Combined techniques for the treatment of acute aortic dissection: Surgery - multilayer modulator - case". The First Congress of the Romanian Society for Vascular Surgery, Sibiu, October. 2014
34. **V. Costache**, C. Moisei, M. Chiloflisch, E. Ciobanu, A. Voican, Florescu N. "The Phantom Menace - the impact of technology in the treatment of aneurysms MFM thoraco-abdominal". The First Congress of the Romanian Society for Vascular Surgery, Sibiu, October 2014
35. **V. Costache**, "Vouchers thoracic stabilization by Matrix Rib", Autumn Days of the French Society of the cardiovascular and thoracic surgery, SFCTCV, Paris 2012
36. Chavanon O, Durand M., **Costache V**, Pison C., Blin D. "*Transplantation pulmonaire à Grenoble – Quel enseignement après 105 greffes ?*" 156-60, ISBN : 978-2-916-39904-1
37. **Costache V**, Chavanon O, St Raymond C, Sessa C, Durand M, Duret J, Bach V, Porcu P, Hacini R, Aubert A, Chaffanjon P, Brichon P-Y, Coltey B, Cracowski C, Bertrand D, Schwebel C, Barnoud D, Brambilla E, Lantuéjoul S, Ferretti G, Pin Blin D, Pison C. "Improving outcomes in lung transplantation Grenoble"; 7th Annual Congress of the Francophone Society of Transplantation, Lyon 2007.
38. Bach V, Durand M, Pison C, Blin D, Protar D, **Costache V**, Chavanon O. "The Interest of ECMO in lung transplantation". 7th Annual Congress of the Francophone Society of Transplantation, Lyon 2007
39. **Costache V.**, "ECMO – ECLS" College of Cardiac Surgery and Thoracic, Narbonne, in March 2006
40. **Costache V.** "Brachiocephalic arterial trunk implantation of the heartbeat" College of Vascular Surgery, Grenoble, December 2004
41. Vouaillat H, **Costache V.** "*Reconstruction of Calcibon in thoracic spine trauma*", *Congres de la Societe francaise de Chirurgie Orthopedique et Traumatologie* - SOFCOT 2004

42. **Costache V.**, Faucheron JL. "*Pseudocyst pancreatic laparoscopic measures*". *Jurnale chirurgicale* Lyon, February 2004
43. **Costache V.**, Faucheron JL, "*Measures in case of laparoscopic rectal prolaps*", *Reviste chirurgicale* Grenoble, December 2003
44. **Costache V.**, Renaud C, Bouchet L, Le Balle F, Dahan M; "Traumatic rupture of the trachea". Congress of the French Society of Thoracic and Cardiovascular, Clermont Ferrand 2003
45. Martu D., Radulescu L., Mardiros G., **Costache V.** "Our experience in using different pieces of cancerologie constructive ENT surgery "; Cardio-Vascular Innovations. CVI French ENT Congress, Paris oct.1999.
46. **Costache V.**, Toma C., Branisteanu D.D. "Efectul lipozomilor blocati de heparina asupra rezistentei arterelor umane" ; Al XV-lea Congres European despre Muschi, Italia, Sept.1995.
47. **Costache V.** et al. " Study Methods contractility small vessels "; Iasi Student Scientific Conference, May 1995.
48. **Costache V.** et al. "The complications of laparoscopic cholecystectomy. A study of 350 cases.". Iasi Student Scientific Conference; May 1995.
49. Daraba R., **Costache V.** "Anatomical variations of facial nerve tract ". The International Congress of Students, Poland, May 1995.
50. **Costache V.**, Toma C., Branisteanu D.D. "Features and potential mechanisms of aortic contractility in rats induced by low levels of Na + ". Al XIV European Congress on Moss, Germany, Sept.1994.
51. **Costache V.** et al. "Ca ATP structure and function"; Iasi Student Scientific Conference, May 1994.
52. **Costache V.** et al. "The importance of GABA receptor structure"; Iasi Student Scientific Conference, May 1994.
53. Szalontay A., **Costache V.** "Kidney Cancer Diagnostic Techniques"; Iasi Student Scientific Conference, May 1994.
54. **Costache V.** et al. "MRI - the physical principle"; Iasi Student Scientific Conference, May 1993

MEMBER OF PROFESSIONAL SOCIETY

2017 – Present	International Society of Endovascular Surgery – ISEVS Member of the board
2016 – 2017	General International Society of Vascular Surgery Secretary
2007 – Present	European Journal of Cardiovascular and Thoracic Surgery (EJCTS) Member of the review committee
2015 – 2019	Romanian Society of Endovascular Surgery President
2015 – 2019	Cardiovascular Commission of the Romanian Ministry of Health President September 2015 – January 2017
2015 – 2019	Member of the Medical Licence Commission of the Lucian Blaga University Sibiu, Romania
2015 – Present	Asia Pacific Vascular Society (APVS) Member

2015 – Present	International Society of Endovascular Specialists - CICE Member
2015 – Present	VEITH Symposium Member
2013 – Present	Medical Council of Romania
2011	Member of the French College of Cardiovascular and Thoracic Surgery Consultant Cardiovascular Surgeon www.sfctcv.fr
2007 – Present	Medical Council of France (Ordre des Medecins) Position nr . 8766; ADELI reference: 381087667

ORGANISATION / MANAGEMENT

2020 – present	<i>Medical Director of Sf Constantin Hospital</i> Head of Cardiovascular Surgery Department Brasov, Romania
2013 – 2019	<i>Medical Director of Polisano European Hospital Sibiu</i> Head of Cardiovascular and Thoracic Department of the Lucian Blaga University Sibiu Head of Cardiovascular and Thoracic Department of Polisano European Hospital Sibiu
2010 – 2013	<i>Head of Public Sector Cardiac Surgery Department</i> Annecy Regional Hospital France
2004	<i>Reviewer</i> for Cardio -Thoracic European Journal of Surgery

RESEARCH GRANTS

2016 – 2020	Next generation computer aided research in cardiovascular disease management (NectCARDIO) POC-A1-A1.1-E-2015, http://nextcardio.ro/
2018 – 2019	Educating students for developing high quality research skills (ENSURE), Norway EY-COP-0049, http://www.eea4edu.ro/despre-program/
2015	Saving Hearts Project, http://savinghearts.eu/work-programme/ Lead Investigator
2014 – 2017	Project 545 719-EM-1-2013-1-FR-ERA MUNDUS EMA21 "Erasmus Mundus Mobility with East Asia 2014 '(EMMAE14)
2013	European project LLP - Leonardo da Vinci / Transfer of Innovation - "digital Orientation: Software customized consulting in job placement and career development" - Project Manager
2010 – 2013	STRATO Study Lead Investigator

SCIENTIFIC ROLE

2007 Member of Review Committee for the European Journal of Cardiovascular and Thoracic Surgery (EJCTS)

HONOURS AND AWARDS

2015 Best Oral presentation Award
European Congress of Biotechnology
Bucharest, Romania

TEACHING ACTIVITIES

2018 – present Associate Professor: Cardiac Surgery Department
Course of: pathological anatomy, cardiac surgery, thoracic surgery
Faculty of Medicine, University Lucian Blaga, Sibiu, Romania

2017 – present PhD Supervisor
Faculty of Medicine, University Lucian Blaga, Sibiu, Romania
Thesis: "The impact of endovascular treatment of aortic dissection on thoracoabdominal aortic collaterals"
Thesis: "New methods for monitoring and assessing cerebral circulation and cognitive function following endovascular treatment of complex aortic disease"
Thesis: "New modalities for the assessment of carotid artery disease-impact of new imaging methods combined with computational fluid dynamics (CFD)"

2001 – 2015 Preparation of course materials for medical students
Cardiovascular Surgery, Thoracic Surgery, Anatomy and Lectures in Cardiovascular and Thoracic Surgery

2015 Development of teaching materials and e-learning platform for Saving Hearts Summer School in Sibiu, Romania, July 2015

Courses: Basic Sciences related to cardiovascular Diseases; Modern Techniques of Medical Imaging in the Examination of the cardiovascular System; Clinical Principles in Intensive care Unit in Cardiovascular Diseases; Valvular Heart Disease – the role of the new minima invasive technique; Coronary and Valvular Heart Disease – the of the interventional cardiologist; Congenital Heart; How to Assess Cardiac Anatomy and Flow Accurately; Shunt Lesions – hemodynamic, diagnosis and therapy; Univentricular Heart: what does it mean and how to treat.

Lectures: The purpose of Clinical Examination in Modern Cardiology; Peripheral Arterial Disease; Carotid Artery Disease; Aortic Disease; Thoracic Aortic Repair.

Video sessions: Treatments for PAD: Bypass, Endovascular, Art Assist, Wounds, Carotid endarterectomy, Carotid artery stenting, Treatments for aortic aneurysm and dissection.

Workshops: Basic Vascular Techniques; Operative Reconstruction of the Carotid Artery on Models; Inflammatory and Hypertrophic Cardiomyopathies: overview, cases; Endovascular; Aortic Repair; Echocardiography in Diagnosis of Cardiac Disease; Transcatheter Therapy in Congenital Heart.

Research: How to Write a Clinical Paper; Symbiosis between Engineering and Cardiovascular Surgery; Research in Congenital Heart: what, how and why?

CLINICAL EXPERTISE

Consultant surgeon in cardiac, vascular, endovascular ant thoracic surgery with more than 400 procedures performed in the

last 12 months and more than 4500 total cardiovascular procedures:

Cardiac surgery	86 coronary bypass procedures 53 Aortic valve replacement through minimallyinvasive aproach 12 aortic valve replacement through minithoracotomy with sutureless valves 86TAVR procedures 25 mitral valve replacement and repair through endoscopy 31 minimal invasive mitral valve procedures through heart port technique 6 aortic dissections 15 aortic root procedures (Wheat, Bentall and aortic root remodelling)
Vascular and endovascular surgery	15 EVAR and TEVAR for thoracoabdominal, AAA and type B aortic dissections 26 Carotid procedures 11 Peripheral arterial bypasses 7 Iliac dilatations
First surgery in France	First chest wall reconstruction with sterna titanium plates First chest wall reconstruction for flail chest with Matrix Rib
First surgery in Romania	First Intuity sutureless valve implantation First transaortic TAVR First Perceval sutureless valve implantation First sutureless valve implantation through minithoracotomy First endovascular aortic repair for a thoraco abdominal aneurysm First endovascular aortic repair for type B aortic dissection
World premiere	First endovascular aortic repair for a thoracoabdominal aneurism with a bifurcated multilayer graft

REMARKS AND COMMENTS

Organization/managerial skills

- Leadership - professional experience in management obtained from the responsibilities as head of department of cardiovascular and thoracic surgery and medical director (president de la CME) of the Poliano European Hospital in Romania (the most modern multidisciplinary university hospital in Romania, opened in 2013)
- Organisation skills – cofounder of the first public-private center of cardiovascular surgery in France (Annecy, Lemanic area), cofounder of the first private university cardiovascular and thoracic center in Romania, president of the national commission of cardiovascular surgery of the Romanian Ministry of Health
- Leading researcher in top multicentric research teams which resulted in more than 100 publications and international presentations
- Fund raising management experience

Job-related skills

- Extensive experience gained in cardiac surgery by performing more than 1800 as the first operator intervention (CABG, aortic valve replacement surgery ascending aorta, mitral valve surgery, circulatory support, heart transplant and lung, over 200 minimal invasive mitral surgery, minimal invasive aortic valve surgery, sutureless valves, TAVR) and more than 1,700 interventions cardiac surgery as second operator, over 400 interventions of

vascular and endovascular surgery. operator (TEVAR, EVAR, carotid surgery, peripheral artery disease), more than 200 thoracic surgery procedures (lung resections, chest wall reconstruction, tracheal resection)

Computer skills

- good command of Microsoft Office tools
- Prezi

Driving licence A, B

References

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CHU Grenoble, B.P. 217 – 38043 Grenoble Cedex, France
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CHU Larey, Toulouse, France

Prof. C. Letoublon
Digestive Surgery Service
CHU Grenoble, France