

Elections to EACVI Board 2020-2022

Application for the position:

☒ EACVI Vice-President-Elect (Echocardiography)



1. Your Identity		
Title	M.D., Ph.D.	
Family Name(s)	Muraru	
First Name(s)	Denisa	
Birth Date	03 April 1979	
Type of address	Business <input checked="" type="checkbox"/>	Home <input type="checkbox"/>
Institute/Organisation	University of Milano-Bicocca, Department of Medicine and Surgery	
Department	Department of Cardiovascular, Neural and Metabolic Sciences, Istituto Auxologico Italiano, IRCCS, San Luca Hospital	
Address	Piazzale Brescia 20	
Post Code/Zip	20149	
City	Milan	
Country	Italy	



2. Curriculum Vitae (300 words max)

2004-2010: Cardiology specialization training - Carol Davila University of Medicine, C.C. Iliescu Institute of Cardiovascular Diseases, Bucharest, Romania

2009: Research fellowship on 3D Echocardiography - Udine, Italy

2011-2014: Ph.D. - University of Padua

2014 - 2020: Researcher, Cardiology Consultant - University of Padua

Since April 1, 2020: Assistant Professor - Department of Medicine and Surgery, University of Milano-Bicocca; Echocardiographer - San Luca Hospital, Istituto Auxologico Italiano, Milan, Italy

Main research fields: right heart imaging, tricuspid valve disease, chamber quantification by 3D echocardiography and myocardial 2D/3D deformation imaging (clinical validation/reference values/prognostic value)

Scientific output:

- 135 papers in peer-reviewed journals (Scopus)
- 3 books as co-editor
- 66 chapters (including ESC Textbook of Cardiovascular Medicine, ESC Textbook of Cardiovascular Imaging, EACVI/EAE Textbook of Echocardiography, ASE's Comprehensive Echocardiography, Solomon's Essential Echocardiography: A Companion to Braunwald's Heart Disease)

Congresses and Courses:

- >120 invited presentations (Faculty at EuroEcho since 2009 and ESC Congress since 2012)
- Co-Director *3D Echo Intensive Course* 2012-2019
- Co-Director *3D Echo 360° European meeting* (Padua 2017, 2019)
- Scientific Committee member *Right Heart: The New Frontier* meeting (Padua 2017)
- Scientific Secretary *Online Master Course on Basic and Advanced Echocardiography*
- Director of Teaching Courses for MDs *Applications of Three-Dimensional Technology to Cardiovascular Imaging* and *Basic Course of Two and Three-Dimensional Echocardiography with Practical Hands-On Training* (2017-2019, University of Padua)
- Invited Visiting Professor, Cardiac Imaging Grand Rounds - Mayo Clinic, Rochester US (2017)

Fellowships/honours:

- Fellow European Society of Cardiology - 2018
- Honorary Member Romanian Society of Cardiology - 2018
- Fellow American College of Cardiology - 2019
- Fellow American Society of Echocardiography - 2019
- Honorary Lecture "Gerhard Hoghenkerke" - German Society of Cardiology (DGK) Echocardiography Congress, Leipzig 2019
- EAE Research Grant Award - 2011

Editorial Board Member: Eur Heart J Cardiovasc Imaging, J Am Soc Echocardiogr

Reviewer for: JACC, JACC Imaging, JACC Cardiovascular Interventions, Circulation, Circulation Imaging, EuroIntervention



**3. Previous experience(s) in the EACVI or ESC or your National Bodies?**

Since 2007	ESC/EACVI(EAE) member
2010-2012	Club 35 Committee member Club 35 Ambassador for Romania
2012-2014	Chair of Club 35 Committee Member of EACVI Board Member of Scientific Documents Committee Member of European Communities Committee HIT Committee member (Past Chair) Member of Scientific Documents Committee Member of Web & Communication Committee
2016-2018	Education Committee (Chair) Member of EACVI Board (Elected Councillor) Member of Scientific Documents Committee Member of EACVI Task Force of Multi-Modality Imaging (MMI) Member of EACVI FoCUS Task Force
2018-2020	Education Committee (Chair) Member of EACVI Board (Elected Councillor - Echo Section) Member of Scientific Documents Committee Member of Web & Communication Committee Member of EACVI Excellence in Education Awards Task Force Member of ESC Education Committee (EACVI representative) Member of ESC Task Force of Live Events Endorsement (EACVI representative) Member of ESC Congress Program Committee (EACVI representative)

Activities and projects coordinated as Chair of EACVI Education and Club 35 (currently HIT) committees (**proposed by DM, implemented and completed, or active to date*):

▪ **EACVI Webinars 2017-2020**

- planned and organized as EACVI Webinar Course Director the webinars in the last 4 years on various MMI topics, including on the role of *MMI and lung ultrasound in COVID-19 patients* (>1400 live participants each, >13.000 YouTube visualizations), and on *strain standardization by EACVI/ASE/Industry TaskForce* (LV strain in 2017 ranking as the most successful EACVI webinar of all times with almost 30.000 YouTube visualizations)
- organized *the first *EACVI Webinar Series* in 2018 (3 consecutive webinars focused on MMI in transcatheter valvular interventions)
- implemented **EACVI Free Webinar Playlist* on YouTube (unrestricted access to the best 25 EACVI webinars from 2017-2020)

- ***EACVI Teaching Course on 2D and 3D TOE** - organized as Co-Director 3 consecutive international courses with expert guided hands on practice on TOE manikin simulator and multivendor workstations, gathering close to 100 participants/edition in Sophia Antipolis (2017; 2018) and Prague (2019), with excellent overall feedback





- ***EACVI Excellence in Education Awards** - project aimed to recognize outstanding teachers, coordinated by a dedicated TaskForce, to be launched at EACVI 2020 Congress
- ***EACVI Microtutorials** - ongoing project
- ***EACVI Tutorials on 3D Echo** (Director and presenter) - upcoming set of tutorials, to be launched in 2021
- As EACVI representative in the **ESC Task Force of Live Events Endorsement**, reviewed for granting EACVI endorsement several MMI meetings and courses (2018-2019)
- ***EACVI Workshop with TOE simulator** - organized practical workshops at EuroEcho Imaging Congress (2014-2016, 2017-2019)
- ***EACVI Continuing Education and Training Catalogue** - introduced online and printed yearly collection of EACVI Educational offer since 2018
- ***EACVI Training Grants** - project implemented as Chair of EAE Club 35 Committee
- **EACVI Hands-on Teaching Courses** (Organizing Committee member) dedicated for the young community in Athens (2013), Sofia (2014) and Antalya (2015, 2018)
- **EACVI Teaching Courses** (Faculty member) held in Italy, Romania, Turkey and Macedonia
- **EACVI Echocardiography Core Curriculum Teaching Course** - organized at EuroEcho Imaging Congress (2017, 2018, 2019)
- ***“Young Network of Cardiovascular Imaging” LinkedIn Group** - proposed and implemented as Chair of EAE Club 35 Committee
- ***Club 35/HIT poster sessions**
- ESC TV interviews at EuroEcho Imaging 2017 - Editor
- EuroEcho Imaging 2017 Congress reports - Editor
- “How to...” and Club 35 Sessions at EuroEcho Imaging Congress
- Updated the **Online Directory of European Training Centers on Multi-modality Imaging**
- Promoted the participation of young scientists as Faculty at EuroEcho Congress
- Co-author 3D Echo Box Atlas
- Contributor: EACVI Echo Handbook, e-Learning TTE Course, WikiEcho, Clinical case gallery
- Abstract reviewer for ESC and EuroEcho Imaging Congress

Activity as member of Scientific Documents committee:

- **Co-Author of 14 EACVI papers** (including COVID-19 pandemic and cardiac imaging; Multi-modality imaging in cardiology; EACVI/ASE/Industry Task Force Standardization of RV and atrial strain; EACVI/ASE Chamber Quantification; Euro-Echo Imaging 2017 and 2018 Highlights; EACVI HIT paper on how to win an EACVI grant; FoCUS core curriculum; Heart Transplantation; etc)
- **Reviewer for 13 EACVI papers**

Research activities:

- **EURECA Registry** (sponsored by ESC/EORP) - National Coordinator
- **EURO-ENDO Registry** - Investigator (sponsored by ESC/EORP)
- **EACVI MASCOT HIT study** - Principal Investigator



**4. Are you a Board or Nucleus Member of another scientific organisation?**Yes ☐ No ☒

If Yes, please specify:

5. Publications (please list max 10 of your most important publications)

1. **Muraru D**, Badano LP, Nagata Y, et al. Development and Prognostic Validation of Partition Values to Grade Right Ventricular Dysfunction Severity Using 3D Echocardiography. *Eur Heart J Cardiovasc Imaging*. **2020**;21(1):10-21. doi:10.1093/ehjci/jez233
2. **Muraru D**, Guta AC, Ochoa-Jimenez RC, et al. Functional Regurgitation of Atrioventricular Valves and Atrial Fibrillation: An Elusive Pathophysiological Link Deserving Further Attention. *J Am Soc Echocardiogr*. **2020**;33(1):42-53. doi:10.1016/j.echo.2019.08.016
3. Badano LP, Addetia K, Pontone G, ... **Muraru D**. Advanced Imaging of Right Ventricular Anatomy and Function. *Heart*. **2020**; heartjnl-2019-315178. doi:10.1136/heartjnl-2019-315178
4. Badano LP, Caravita S, Rella V, ... **Muraru D**. The Added Value of Three-Dimensional Echocardiography to Understand the Pathophysiology of Functional Tricuspid Regurgitation. *JACC Cardiovasc Imaging*. **2020** (in press)
5. Gavazzoni M, Badano LP, Vizzardi E, ... **Muraru D**. Prognostic Value of Right Ventricular Free Wall Longitudinal Strain in a Large Cohort of Outpatients with Left-Side Heart Disease. *Eur Heart J Cardiovasc Imaging*. **2019**;jez246. doi:10.1093/ehjci/jez246
6. Addetia K, **Muraru D**, Badano LP, Lang RM. New Directions in Right Ventricular Assessment Using 3-Dimensional Echocardiography. *JAMA Cardiol*. **2019**;4(9):936-944. doi:10.1001/jamacardio.2019.2424
7. Badano LP, Hahn R, Rodríguez-Zanella H, ... **Muraru D**. Morphological Assessment of the Tricuspid Apparatus and Grading Regurgitation Severity in Patients With Functional Tricuspid Regurgitation: Thinking Outside the Box. *JACC Cardiovasc Imaging*. **2019**;12(4):652-664. doi:10.1016/j.jcmg.2018.09.029
8. **Muraru D**, Hahn RT, Soliman OI, et al. 3-Dimensional Echocardiography in Imaging the Tricuspid Valve. *JACC Cardiovasc Imaging*. **2019**;12(3):500-515. doi:10.1016/j.jcmg.2018.10.035
9. Khalique O, Cavalcante JL, Shah D, ... **Muraru D**. Multimodality Imaging of the Tricuspid Valve and Right Heart Anatomy. *JACC Cardiovasc Imaging*. **2019**; 12(3):516-531. doi:10.1016/j.jcmg.2019.01.006
10. **Muraru D**, Mihaila-Baldea S, Badano L. Transcatheter Tricuspid Valve Replacement: Taking it One Step Further. *J Am Coll Cardiol*. **2019**;73(2):158-160. doi:10.1016/j.jacc.2018.09.087





6. Hirsch Index to date, by Web of Science

H-index = 27 (WoS); 29 (Scopus)

7. Why are you interested in joining the EACVI Board (300 words max)?

Over the last 10 years, the EACVI has become a pillar in my professional growth. I have accumulated experience by collaborating with peers in cardiovascular imaging field and built my own professional network. Working closely with EACVI Board members, I have witnessed different management styles, which allowed me to derive the basis on which to shape my own approach.

I believe it is now the time in my professional career to serve the Association by using the experience and worldwide network to support the Echocardiography community at large.

Therefore, it would be a great honour to be considered for the position of EACVI Vice-President Elect for Echocardiography.

If elected, my main goal will be to promote the excellence in Echocardiography practice and research. I would support initiatives aimed to help preserve the quality standards of echocardiographic examination by gathering robust evidence on its current threats (limited allocated time, inhomogeneities in reporting standards, skepticism regarding the clinical benefit of advanced techniques, reimbursement issues etc). EACVI could organize co-creation workshops with experts leading Echocardiography/Imaging labs, hospital managers, National Societies, Industry and Patient representatives to identify modifiable factors and strategies to tackle them at European level. For instance, EACVI could run pilot studies on the benefit of artificial intelligence to highlight errors/inconsistencies during reporting etc.

I would continue working for offering better training opportunities through grants and exchange programs for young and mid-career physicians seeking for continuous education. Given the growing difficulties of traveling due to recent pandemic or family reasons, I would prioritize the production of online learning resources available to listen/watch on demand.

Finally, I would collaborate closely with EACVI leaders representing the other imaging modalities to move towards multimodality training and clinical applications, to further strengthen the EACVI impact worldwide and help promote ESC and EACVI missions and strategic goals.