

Curriculum Vitae

Bela Merkely PhD, DSc, FESC, FACC



Place and Date of Birth

Budapest, June 28 1966

Present Position and Address

Chairman and Director – Semmelweis University Heart and Vascular Center (since July 2007)
(Address: Varosmajor Str. 68., Budapest, Hungary – 1122)

President – Semmelweis University Clinical Center (since 2015)

Vice-Rector for Clinical Affairs – Semmelweis University (since 2015)

Professor – Semmelweis University (since September 2008)

Honorary President – Hungarian Society of Cardiology (since May 2017)

President of the Scientific Committee - Hungarian Society of Cardiology (since May 2016)

Honorary President and former President – Hungarian Heart Rhythm Association
(since September 2013)

Past-President – Hungarian Association of Percutaneous Cardiovascular Intervention
(since October 2016)

President – Cardiology Council of Professional College (since May 2011)

President of the Cardiology Section of Professional College (since 2016)

Training and Education

Semmelweis University – Health Service Management Training Centre (2006-2009)

Semmelweis University (SOTE), Faculty of Medicine (1984-1991)

Ruprecht-Karls University of Heidelberg (DAAD Fellow) (1991-1993)

Post Graduate Degrees

2017 Licence in transesophageal echocardiography

2017 Licence in transthoracic echocardiography

2017 Specialization exam in sport medicine

2015 Specialization exam in clinical pharmacology

2015 GCP training

2014 MSc Diplom – Manager in Health Economics (Semmelweis University, Health Service Management Training Centre)

2009 Manager in Health Economics (Semmelweis University) MSc

- 2009 Interventional Cardiology license – expert level
- 2007 License in transthoracic echocardiography (Honoris causa-2nd level)
- 2007 EHRA Cardiac Pacing and ICD Accreditation-Device Therapy
- 2007 Arrhythmology license – Invasive Electrophysiology
- 2007 Arrhythmology license – Device therapy (PM, ICD, CRT)
- 2006 Doctor of the Hungarian Academy of Sciences (DSc)
"Pathomechanisms of tachyarrhythmias and novel non-pharmacological treatment strategies"
- 2006 Med. Habil Semmelweis University (Cardiology)
- 1999 Ph.D.
"Experimental and clinical investigations of ventricular arrhythmias."
- 1998 Board certified in cardiology
- 1996 Board certified in internal medicine
- 1991 Medical Doctor (summa cum laude), Semmelweis University, Budapest

European Society of Cardiology Activities

- 2016- Vice-President and Board Member of the European Society of Cardiology
- 2015-2017 Chair of the National Cardiac Societies Committee, European Heart Rhythm Society
- 2014-2016 Councillor and Board Member of the European Society of Cardiology
- 2013-2015 Executive Board Member and Treasurer of the European Heart Rhythm Association
- 2011-2014 Member of the EuroPCR Relations Committee, EAPCI
- 2011 EHRA National Societies – Eastern Initiative Coordinator: ICD for Life
- 2010- 2013 President of the Hungarian Society of Cardiology
- 2010- Member of the Credentials Committee, European Society of Cardiology
- 2009-2011 Co-chairman of the National Societies Committee of EHRA
- 2007-2011 Member of the National Societies Board, of EHRA
- 1996-2004 National Delegate of the Working Group on Cardiac Pacing, ESC
- 2001- Fellow of the European Society of Cardiology (FESC)
- 1991- Member of the European Society of Cardiology

Other International Scientific Committee Participation

- 2016- President of the China-CEEC Hospital Cooperation Alliance
- 2015- Member of the European Academy of Sciences and Arts
- 2015-2017 Co-Chair of EuROTA Club
- 2011- Fellow of the American College of Cardiology
- 2011- Member of the Cardiology Section of Professional College
President of the Cardiology Council of Professional College
- 2009- President of Students' Scientific Association of Semmelweis University
- 2006- 2010 Member of the Scientific and Research Ethical Board of the Health Scientific Committee
- 1998- Member of the North-American Society of Pacing and Electrophysiology/
Heart Rhythm Association
- 1990-1996 Chairman of the Society of German and Hungarian Scientists of Heidelberg, Germany

Editorial Boards

- 2016- Member of the Editorial Board for the journal “Journal of Cardiovascular Emergencies”
- 2016- Member of the Editorial Board for the journal “Journal of Hungarian Interdisciplinary Medicine”
- 2016- Deputy Editor for the journal “Heart Beat Journal”
- 2015- Member of the Editorial Board for the journal “Frontiers in Cardiovascular Medicine”
- 2015- Member of the Editorial Board for the journal “Advances in Interventional Cardiology”
- 2014- Member of the Editorial Board for the journal “World Journal of Cardiology”

- 2012- Member of the Editorial Board for the journal “Clinical Research in Cardiology”,
the official scientific journal of the German Cardiac Society
– Heart and Circulation Research
- 2011- Member of the Editorial Board of the journal ‘Cor et Vasa’ (Journal of the Czech
Society of Cardiology and Czech Society for Cardiovascular Surgery)
- 2010- Deputy Editor-in-Chief of the journal: “Interventional Medicine and Applied Science”
- 2008- Editor-in-Chief of the national medical journal “Medical Education” (founded in 1911)
- 2006- Member of the Editorial Board of Lege Artis Medicinae (LAM)
- 2006- Member of the Editorial Board of the Hungarian issue of JACC
- 1999-2006 Member of the Editorial Board of Progress Biomedical Research

Fellowships / Honours

- 2017 Kossuth Zsuzsanna Award
- 2017 Honorary President of the Hungarian Society of Cardiology
- 2017 Honorary President and Honorary Professor of Northern Jiangsu People’s Hospital
- 2017 Honorary Professor of the Peking Union Medical College Hospital
- 2017 Doctor Honoris Causa of the Peoples’ Friendship University of Russia
- 2016 Honorary Professor Voronezh N. N. Burdenko State Medical University
- 2016 Order of Merit of the Hungarian Republic, Commander Cross
- 2015 Dénes Gábor Award
- 2014 Városmajor Heart and Vascular Center – belonging to Semmelweis University and
led by Béla Merkely – receives the “Cardiology Centre of Excellence” Prize (Medicina Top200)
- 2014 Astellas Certificate of Merit for the outstanding professional knowledge and magnificent human
attitude (Astellas Award was running in the frame of the Physician of the Year Competition)
- 2014 Gold Medal of Hungarian Society of Cardiology
- 2014 Ministerial Certificate of Merit for the Cardiology Technicians of Városmajor Heart and Vascular
Center’s Intensive Care Unit – belonging to Semmelweis University and led by Béla Merkely
- as a care unit of high priority
- 2013 Career Achievement Award (Jagellonian University Krakow)
- 2013 Medal of Honour for the scientific activities, the support and promotion of scientific work
(Peoples' Friendship University of Russia, Moscow)
- 2013 Honorary Citizen of Budapest
- 2013 Career Achievement Award (Krakow)
- 2013 Medal of Honor for Scientific Activity and for Fostering and Promoting Scientific
Work (People’s Friendship University, Moscow)

- 2013 Pro Societate Award of the Hungarian Society of Cardiology for the outstanding work executed as Executive Board Member and Advisory Board Member from 2010 to 2013
- 2012 Elite Reviewer of Europace
- 2011 Semmelweis University Heart Center - "FIFA Medical Centre of Excellence"
- 2011 Markusovszky Award, Hungarian Medical Journal
- 2011 Order of Merit of the Hungarian Republic, Officer's Cross
- 2011 Fellow of the American College of Cardiology (FACC)
- 2009 Nivou Prize of the Hungarian Academy of Sciences
- 2008 Jendrassik Ernő Award
- 2007 Master Tutor Gold Medal – Award of the National Scientific Student's Organization
- 2007 Semmelweis University Tutor Award of the Scientific Student's Organization
- 2006 Founder of the Heart Center in Győr, Award
- 2006 Pro Civitate Sana Award
- 2004 Bolyai Award of the Hungarian Academy of Sciences (MTA)
- 2004 Rudolf-Thauer-Posterpreis 3rd prize: Deutsche Gesellschaft für Kardiologie
- 2004 Pro Societate Award of the Hungarian Society of Cardiology
- 2003 Cardiovascularis Centrum Award
- 2002 Semmelweis University, Tutor Award of the Scientific Student's Organization
- 2001 Fellow of the European Society of Cardiology (FESC)
- 2000 Gabor Gyorgy Award
- 2000-03 Bolyai Research Scholarship of the Hungarian Academy of Sciences
- 1999 10th World Congress of Electrophysiology, International Virchow Award 1st prize
- 1996 Adorjan Ferenc Award
- 1997 International Union of Angiology European Chapter's Congress – Physiology prize
- 1985 Tancsics Mihaly Award, Gold level

Honorary Memberships

- 2017 Honorary President of the Hungarian Society of Cardiology
- 2017 Honorary President and Honorary Professor of Northern Jiangsu People's Hospital
- 2017 Honorary Professor of the Peking Union Medical College Hospital
- 2017 Doctor Honoris Causa of the Peoples' Friendship University of Russia
- 2016 Honorary Professor of Voronezh N. N. Burdenko State Medical University
- 2013 Honorary Citizen of Budapest
- 2011 Honorary Doctor of the Peoples' Friendship University of Russia, Moscow

Major Publications

Selected publications of Prof. Dr. Béla Merkely

1. Donnelly PM; Kolossváry M; Karády J; Ball PA; Kelly S; Fitzsimons D; Spence MS; Celeng C; Horváth T; Szilveszter B; van Es HW; Swaans MJ; **Merkely B***; Maurovich-Horvat P*: Experience with an on-Site Coronary Computed Tomography Derived Fractional Flow Reserve Algorithm for the Assessment of Intermediate Coronary Stenosis. Am J Cardiol [Epub ahead of print 2017 Oct 10] *IF: **3,398**.

2. Bartykowszki A, Kolossváry M, Jermendy ÁL, Karády J, Szilveszter B, Károlyi M, Balogh O, Sax B, **Merkely B***, Maurovich-Horvat P*:
Image Quality of Prospectively ECG-Triggered Coronary CT Angiography in Heart Transplant Recipients.
AJR Am J Roentgenol [Epub ahead of print]. *IF: 2,778.
3. Kosztin A, Vamos M, Aradi D, Schwertner WR, Kovacs A, Nagy KV, Zima E, Geller L, Duray GZ, Kutiyifa V, **Merkely B**:
De novo implantation vs. upgrade cardiac resynchronization therapy: a systematic review and meta-analysis.
Heart Fail Rev [Epub ahead of print 2017 Oct 19]. *IF: 3,481.
4. Molnár AÁ, Kovács A, Lakatos BK, Pólos M, **Merkely B**:
Sinus of Valsalva aneurysm protruding intramurally into right ventricle: does size really matter?
Eur Heart J Cardiovasc Imaging [Epub ahead of print 2017 Sep 23] *IF: 5,990.
5. Szilveszter B, Kolossváry M, Karády J, Jermendy ÁL, Károlyi M, Panajotu A, Bagyura Z, Vecsey-Nagy M, Cury RC, Leipsic JA, **Merkely B***, Maurovich-Horvat P*:
Structured reporting platform improves CAD-RADS assessment.
J Cardiovasc Comput Tomogr [Epub ahead of print 2017 Sep 18] IF: 3,185.
6. Raatikainen MJP, Arnar DO, **Merkely B**, Nielsen JC, Hindricks G, Heidbuchel H, Camm J:
A Decade of Information on the Use of Cardiac Implantable Electronic Devices and Interventional Electrophysiological Procedures in the European Society of Cardiology Countries: 2017 Report from the European Heart Rhythm Association.
Europace 19(S2): ii1-ii90. *IF: 4,530.
7. Sibbing D, Aradi D, Jacobshagen C, Gross L, Trenk D, Geisler T, Orban M, Hadamitzky M, **Merkely B**, Kiss RG, Komócsi A, Dézsi CA, Holdt L, Felix SB, Parma R, Klopotoski M, Schwinger RHG, Rieber J, Huber K, Neumann FJ, Koltowski L, Mehilli J, Huczek Z, Massberg S; TROPICAL-ACS Investigators:
Guided de-escalation of antiplatelet treatment in patients with acute coronary syndrome undergoing percutaneous coronary intervention (TROPICAL-ACS): a randomised, open-label, multicentre trial.
Lancet 2017; 390: 1747-1757. *IF: 47,831.
8. Cannon CP, Bhatt DL, Oldgren J, Lip GYH, Ellis SG, Kimura T, Maeng M, **Merkely B**, Zeymer U, Gropper S, Nordaby M, Kleine E, Harper R, Manassie J, Januzzi JL, Ten Berg JM, Steg PG, Hohnloser SH; RE-DUAL PCI Steering Committee and Investigators:
Dual Antithrombotic Therapy with Dabigatran after PCI in Atrial Fibrillation.
NEJM 2017; 377(16): 1513-1524. *IF: 72,406.
9. Kiss LZ, Bagyura Z, Vadas R, Polgár L, Lux Á, Édes E, Szenczi O, Soós P, Szelid Z, Becker D, Jermendy G, **Merkely B**:
Signs of subclinical atherosclerosis in asymptomatic patients at increased risk of type 2 diabetes mellitus.
J Diabetes Complications 2017; 31(8): 1293-1298. *IF: 2,734.
10. Gara E, Molnár AÁ, **Merkely B**, Földes G:
Assessing the therapeutic readiness of stem cells for cardiovascular repair.
Expert Opin Biol Ther 2017; 17(8): 911-914. *IF: 3,684.

11. *Karády J**, *Panajotu A**, Kolossváry M, Szilveszter B, Jermendy ÁL, Bartykowszki A, Károlyi M, Celeng C, **Merkely B***, *Maurovich-Horvat P**:
The effect of four-phasic versus three-phasic contrast media injection protocols on extravasation rate in coronary CT angiography: a randomized controlled trial.
Eur Radiol [Epub ahead of print 2017 May 24] *IF: 3,967.
12. Bagyura Z, Kiss L, Hirschberg K, Berta B, Széplaki G, Lux Á, Szelid Z, Soós P, **Merkely B**:
Association between VEGF Gene Polymorphisms and In-Stent Restenosis after Coronary Intervention Treated with Bare Metal Stent.
Dis Markers 2017; 2017: 9548612. *IF: 2,348.
13. Fabris E, Van't Hof A, Hamm CW, Lapostolle F, Lassen JF, Goodman SG, Ten Berg JM, Bolognese L, Cequier A, Chettibi M, Hammett CJ, Huber K, Janzon M, **Merkely B**, Storey RF, Zeymer U, Cantor WJ, Rousseau H, Vicaut E, Montalescot G:
Impact of presentation and transfer delays on complete ST segment resolution before primary percutaneous coronary intervention: insights from the ATLANTIC trial.
EuroIntervention 2017; 13(1): 69-77. *IF: 5,165.
14. Kolossváry M, Székely AD, Gerber G, **Merkely B***, *Maurovich-Horvat P**:
CT Images Are Noninferior to Anatomic Specimens in Teaching Cardiac Anatomy-A Randomized Quantitative Study.
J Am Coll Radiol 2017; 14(3): 409-415.e2. *IF: 2,993.
15. Károlyi M, Szilveszter B, Kolossváry M, Takx RA, Celeng C, Bartykowszki A, Jermendy ÁL, Panajotu A, Karády J, Raaijmakers R, Giepmans W, **Merkely B***, *Maurovich-Horvat P**:
Iterative model reconstruction reduces calcified plaque volume in coronary CT angiography.
Eur J Radiol 2017; 87: 83-89. *IF: 2,462.
16. Bartunek J, Terzic A, Davison BA, Filippatos GS, Radovanovic S, Beleslin B, **Merkely B**, Musialek P, Wojakowski W, Andreka P, Horvath IG, Katz A, Dolatabadi D, El Nakadi B, Arandjelovic A, Edes I, Seferovic PM, Obradovic S, Vanderheyden M, Jagic N, Petrov I, Atar S, Halabi M, Gelev VL, Shochat MK, Kasprzak JD, Sanz-Ruiz R, Heyndrickx GR, Nyolczas N, Legrand V, Guédès A, Heyse A, Moccetti T, Fernandez-Aviles F, Jimenez-Quevedo P, Bayes-Genis A, Hernandez-Garcia JM, Ribichini F, Gruchala M, Waldman SA, Teerlink JR, Gersh BJ, Povsic TJ, Henry TD, Metra M, Hajjar RJ, Tendera M, Behfar A, Alexandre B, Seron A, Stough WG, Sherman W, Cotter G, Wijns W; CHART Program:
Cardiopietic cell therapy for advanced ischemic heart failure: results at 39 weeks of the prospective, randomized, double blind, sham-controlled CHART-1 clinical trial.
Eur Heart J 2017; 38(9): 648-660. *IF: 19,651.
17. Benke K, Sayour AA, Mátyás C, Ágg B, Németh BT, Oláh A, Ruppert M, Hartyánszky I, Szabolcs Z, Radovits T, **Merkely B***, *Szabó G**:
Heterotopic Abdominal Rat Heart Transplantation as a Model to Investigate Volume Dependency of Myocardial Remodeling.
Transplantation 2017; 101(3): 498-505. *IF: 3,678.
18. **Merkely B**; Kosztin A; Róka A; Gellér L; Zima E; Kovács A; Boros AM; Klein H; Wranicz JK; Hindricks G; Clemens M; Duray G; Moass AJ; *Goldenberg I**; *Kutyifa V**:

Rationale and design of the BUDAPEST-CRT Upgrade Study: a prospective, randomized, multicentre clinical trial.

Europace 2017; 19(9): 1549-1555. *IF: 4,530.

19. Celeng C, Kolossváry M, Kovács A, Molnár AÁ, Szilveszter B, Horváth T, Károlyi M, Jermendy ÁL, Tárnoki ÁD, Tárnoki DL, Karády J, Voros S, Jermendy G, **Merkely B***, Maurovich-Horvat P*:
Aortic root dimensions are predominantly determined by genetic factors: a classical twin study.
Eur Radiol 2017; 27(6): 2419-2425. *IF: 3,967.
20. Mátyás C, Németh BT, Oláh A, Török M, Ruppert M, Kellermayer D, Barta BA, Szabó G, Kökény G, Horváth EM, Bódi B, Papp Z, **Merkely B**, Radovits T:
Prevention of the development of heart failure with preserved ejection fraction by the phosphodiesterase-5A inhibitor vardenafil in rats with type 2 diabetes.
Eur J Heart Fail 2017; 19(3): 326-336. *IF: 6,968.
21. Oláh A, Kellermayer D, Mátyás C, Németh BT, Lux Á, Szabó L, Török M, Ruppert M, Meltzer A, Sayour AA, Benke K, Hartyánszky I, **Merkely B**, Radovits T:
Complete Reversion of Cardiac Functional Adaptation Induced by Exercise Training.
Med Sci Sport Exerc 2017; 49(3): 420-429. *IF: 4,141.
22. Nagy AI, Venkateshvaran A, **Merkely B**, Lund LH, Manouras A:
Determinants and prognostic implications of the negative diastolic pulmonary pressure gradient in patients with pulmonary hypertension due to left heart disease.
Eur J Heart Fail 2017; 19(1): 88-97. *IF: 6,968.
23. Maurovich-Horvat P, Suhai FI, Czimbalmos C, Tóth A, Becker D, Kiss E, Ferencik M, Hoffmann U, Vagó H, **Merkely B**:
Coronary Artery Manifestation of Ormond Disease: The "Mistletoe Sign".
Radiology 2017; 282(2): 356-360. *IF: 7,296.
24. Gibson CM, Korjian S, Tricoci P, Daaboul Y, Yee M, Jain P, Alexander JH, Steg PG, Lincoff AM, Kastelein JJ, Mehran R, D'Andrea DM, Deckelbaum LI, **Merkely B**, Zarebinski M, Oude Ophuis T, Harrington RA:
Safety and Tolerability of CSL112, a Reconstituted, Infusible, Plasma-Derived Apolipoprotein A-I, After Acute Myocardial Infarction: The AEGIS-I Trial (ApoA-I Event Reducing in Ischemic Syndromes I).
Circulation 2016; 134(24): 1918-1930. IF: 19,309.
25. Stone GW, Sabik JF, Serruys PW, Simonton CA, Généreux P, Puskas J, Kandzari DE, Morice MC, Lembo N, Brown WM 3rd, Taggart DP, Banning A, **Merkely B**, Horkay F, Boonstra PW, van Boven AJ, Ungi I, Bogáts G, Mansour S, Noiseux N, Sabaté M, Pomar J, Hickey M, Gershlick A, Buszman P, Bochenek A, Schampaert E, Pagé P, Dressler O, Kosmidou I, Mehran R, Pocock SJ, Kappetein AP; EXCEL Trial Investigators:
Everolimus-Eluting Stents or Bypass Surgery for Left Main Coronary Artery Disease.
NEJM 2016; 375(23): 2223-2235. IF: 72,406.
26. Goette A, Merino JL, Ezekowitz MD, Zamoryakhin D, Melino M, Jin J, Mercuri MF, Grosso MA, Fernandez V, Al-Saady N, Pelekh N, **Merkely B**, Zenin S, Kushnir M, Spinar J, Batushkin V, de Groot JR, Lip GY:

Edoxaban versus enoxaparin-warfarin in patients undergoing cardioversion of atrial fibrillation (ENSURE-AF): a randomised, open-label, phase 3b trial.
LANCET 2016; 388(10055): 1995-2003. **IF: 47,831.**

27. Édes IF, Ruzsa Z, Szabó G, Lux Á, Gellér L, Molnár L, Nowotta F, Hajas Á, Szilveszter B, Becker D, **Merkely B**:
Rotational atherectomy of undilatable coronary stents: stentablation, a clinical perspective and recommendation.
EuroIntervention 2016; 12(5): e632-e635. **IF: 5,165.**
28. Széplaki G, Boros AM, Szilágyi S, Osztheimer I, Jenei Z, Kosztin A, Nagy KV, Karády J, Molnár L, Tahin T, Zima E, Gellér L, Prohászka Z, **Merkely B**:
Complement C3a predicts outcome in cardiac resynchronization therapy of heart failure.
Inflamm Res 2016; 65(12): 933-940. **IF: 2,659.**
29. Crespo-Leiro MG, Anker SD, Maggioni AP, Coats AJ, Filippatos G, Ruschitzka F, Ferrari R, Piepoli MF, Delgado Jimenez JF, Metra M, Fonseca C, Hradec J, Amir O, Logeart D, Dahlström U, **Merkely B**, Drozd J, Goncalvesova E, Hassanein M, Chioncel O, Lainscak M, Seferovic PM, Tousoulis D, Kavoliuniene A, Fruhwald F, Fazlibegovic E, Temizhan A, Gatzov P, Erglis A, Laroche C, Mebazaa A; Heart Failure Association (HFA) of the European Society of Cardiology (ESC):
European Society of Cardiology Heart Failure Long-Term Registry (ESC-HF-LT): 1-year follow-up outcomes and differences across regions.
Eur J Heart Fail 2016; 18(6): 613-625. **IF: 6,968.**
30. Gold MR, Sommer T, Schwitter J, Kanal E, Bernabei MA, Love CJ, Surber R, Ramza B, Cerkenik J, **Merkely B**:
The Impact of Magnetic Resonance Imaging on Ventricular Tachyarrhythmia Sensing: Results from the Evera MRI Study.
Heart Rhythm 2016; 13(8): 1631-1635. **IF: 4,866.**
31. Oláh A, Németh BT, Mátyás C, Hidi L, Lux Á, Ruppert M, Kellermayer D, Sayour AA, Szabo L, Torok M, Meltzer A, Gellér L, **Merkely B***, *Radovits T**:
Physiological and pathological left ventricular hypertrophy of comparable degree is associated with characteristic differences of in vivo hemodynamics.
Am J Physiol Heart Circ Physiol 2016; 310(5): H587-H597. **IF: 3,348.**
32. Gibson CM, Giugliano RP, Kloner RA, Bode C, Tendera M, Jánosi A, **Merkely B**, Godlewski J, Halaby R, Korjian S, Daaboul Y, Chakrabarti AK, Spielman K, Neal BJ, Weaver WD:
EMBRACE STEMI study: a Phase 2a trial to evaluate the safety, tolerability, and efficacy of intravenous MTP-131 on reperfusion injury in patients undergoing primary percutaneous coronary intervention.
Eur Heart J 2016; 37(16): 1296-1303. **IF: 19,651.**
33. Végh EM, Engels EB, van Deursen CJ, **Merkely B**, Vernooij K, Singh JP, Prinzen FW:
T-wave area as biomarker of clinical response to cardiac resynchronization therapy.
Europace 2016; 18(7): 1077-1085. **IF: 4,530.**

34. Kosztin A; Kutiyifa V; Nagy KV; Gellér L; Zima E; Molnár L; Szilágyi Sz; Özcan EE; Széplaki G; **Merkely B**:
Longer right to left ventricular activation delay at cardiac resynchronopnization therapy implantation is associated with improved clinical outcome in left bundle branch block patients.
Europace 2016; 18(4): 550-559. **IF: 4,530.**
35. Boros AM, Széplaki G, Perge P, Jenei Z, Bagyura Z, Zima E, Molnár L, Apor A, Becker D, Gellér L, Prohászka Z, **Merkely B**:
The ratio of the neutrophil leucocytes to the lymphocytes predicts the outcome after cardiac resynchronization therapy.
Europace 2016; 18(5): 747-754. **IF: 4,530.**
36. Lincoff AM, Mehran R, Povsic TJ, Zelenkofske SL, Huang Z, Armstrong PW, Steg PG, Bode C, Cohen MG, Buller C, Laanmets P, Valgimigli M, Marandi T, Fridrich V, Cantor WJ, **Merkely B**, Lopez-Sendon J, Cornel JH, Kasprzak JD, Aschermann M, Guetta V, Morais J, Sinnaeve PR, Huber K, Stables R, Sellers MA, Borgman M, Glenn L, Levinson AI, Lopes RD, Hasselblad V, Becker RC, Alexander JH; REGULATE-PCI Investigators:
Effect of the REG1 anticoagulation system versus bivalirudin on outcomes after percutaneous coronary intervention (REGULATE-PCI): a randomised clinical trial.
Lancet 2016; 387(10016): 349-356. **IF: 47,831.**
37. Hegedűs P, Li S, Korkmaz-Icöz S, Radovits T, Mayer T, Al Said S, Brlecic P, Karck M, **Merkely B**, Szabó G:
Dimethylxalylglycine treatment of brain-dead donor rats improves both donor and graft left ventricular function after heart transplantation.
J Heart Lung Transplant 2016; 35(1): 99-107. **IF: 7,114.**
38. Aradi D, **Merkely B**, Komócsi A:
Platelet Reactivity: Is There a Role to Switch?
Prog Cardiovasc Dis 2015; 58(3): 278-284. **IF: 4,635.**
39. Kutiyifa V, Moss AJ, Solomon SD, McNitt S, Aktas MK, Barsheshet A, **Merkely B**, Zareba W, Goldenberg I:
Reduced risk of life-threatening ventricular tachyarrhythmias with cardiac resynchronization therapy: relationship to left ventricular ejection fraction.
Eur J Heart Fail 2015; 17(9): 971-978. **IF: 5,135.**
40. Celeng C, Székely L, Tóth A, Dénes M, Csobay-Novák C, Bartykowszki A, Károlyi M, Vágó H, Szőke S, Coelho Filho OR, Andréka P, **Merkely B**, Maurovich-Horvat P:
Multimodality Imaging of Giant Right Coronary Aneurysm and Postsurgical Coronary Artery Inflammation.
Circulation 2015; 132(1): e1-5. **IF: 17,047.**
41. Benke K, Ágg B, Mátyás G, Szokolai V, Harsányi G, Szilveszter B, Odler B, Pólos M, Maurovich-Horvat P, Radovits T, **Merkely B**, Nagy ZB, Szabolcs Z:
Gene polymorphisms as risk factors for predicting the cardiovascular manifestations in Marfan syndrome. Role of folic acid metabolism enzyme gene polymorphisms in Marfan syndrome.
Thromb Haemost 2015; 114(4): 748-756. **IF: 5,255.**

42. Édes IF, Ruzsa Z, Szabó G, Nardai S, Becker D, Benke K, Szilveszter B, **Merkely B**:
Clinical predictors of mortality following rotational atherectomy and stent implantation in high-risk patients: A single center experience.
Catheter Cardiovasc Interv 2015; 86(4): 634-641. **IF: 2,181.**
43. Gold MR, Sommer T, Schwitter J, Al Fagih A, Albert T, **Merkely B**, Peterson M, Ciuffo A, Lee S, Landborg L, Cerkvénik J, Kanal E; Evera MRI Study Investigators:
Full-Body MRI Scanning in Patients with an ICD: Primary results of the randomized Evera MRI Study.
JACC 2015; 65(24): 2581-2588. **IF: 17,759.**
44. Healey JS, Hohnloser SH, Glikson M, Neuzner J, Mabo P, Vinolas X, Kautzner J, O'Hara G, VanErven L, Gadler F, Pogue J, Appl U, Gilkerson J, Pochet T, Stein KM, **Merkely B**, Chrolavicius S, Meeks B, Foldesi C, Thibault B, Connolly SJ; on behalf of the Shockless IMPLant Evaluation [SIMPLE] investigators:
Cardioverter defibrillator implantation without induction of ventricular fibrillation: a single-blind, non-inferiority, randomised controlled trial (SIMPLE).
Lancet 2015; 385(9970): 785-791. **IF: 44,002.**
45. Kovács A*, Oláh A*, Lux Á, Mátyás C, Németh BT, Kellermayer D, Ruppert M, Török M, Szabó L, Meltzer A, Assabiny A, Birtalan E, Merkely B*, **Radovits T***:
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- 3 edited books, 2 specialized books, 44 book chapters (6 in English language, 36 Hungarian, 2 university coursebook chapters), contributed to 14 university coursebook chapters, 2 university textbooks
- 413 international and 221 Hungarian articles,
- **Cumulative impact factor: 1688,978**
- **Independent citations: 16.595**
- **Hirsch index: 34**
- **g-index: 70**
- **MTMT ID: 10002691**

Major Research Interest

- Non-pharmacological treatment of heart failure (Implantable Cardioverter Defibrillator, Cardiac Resynchronisation Therapy)
- Interventional cardiology (New techniques)
- Invasive and noninvasive imaging in heart failure, arrhythmias and acute coronary syndromes
- Sports cardiology, cardiac remodeling of elite athletes
- Experimental and clinical investigations of the mechanisms of arrhythmias
- Endogen vasoactive arrhythmogenic factors

Motivation Letter

Building Bridges Between Eastern and Western Europe

It is my great pleasure and honour to seek nomination as President-Elect of the European Society of Cardiology. It is the first time that someone from my country applies to the highest position at the ESC and to the best of my knowledge only very few president candidates were nominated from Central-Eastern Europe in the past decades.

I have been director and chairman of Semmelweis University Heart and Vascular Center in Budapest for more than 10 years. This Clinic has a wide profile, including cardiology, heart surgery, vascular surgery, cardiac imaging and interventional radiology. Besides of widespread clinical investigations, also translational aspect is present with small and large animal experimental labs and stem cell research. The principal role of our clinic as a tertiary centre is to perform invasive cardiology procedures of all types. A significant area is percutaneous coronary intervention in acute coronary syndrome (ACS) and stable coronary artery disease using modern tools (e.g. rotablation, intravascular ultrasound). We have a very active role in the treatment of acute myocardial infarction with urgent coronary revascularization (primary PCI) covering Budapest and the Central Hungarian Region. Yearly 2000 pacemaker, ICD, CRT implantations, 3300 PCIs, 2000 vascular interventions, 1200 ablations, 800 open heart surgeries and 1500 vascular surgeries are performed at our Clinic. In the field of non-pharmacological treatment of

heart failure, we are a high volume centre with mechanical circulatory support program. With over 50 heart transplantations per year, our clinic is the second largest heart transplant centre among the Eurotransplant countries.

As a university clinic, we provide gradual medical education in three languages (Hungarian, English and German). We take part in postgraduate specialty training, preparing the applicants for basic and higher-level specialty Board Exams and we are also integrated into the School of PhD Studies.

A few years ago, Semmelweis University Heart and Vascular Center won the Medical Centres of Excellence award accredited and recognized by the International Football Association. About 500 athletes are tested annually in our centre. In 2017 I have been the Chief Medical Officer of the FINA Aquatic World Championship.

Semmelweis University Heart and Vascular Center has scientific cooperation projects all over Europe. These common projects offer the opportunity to strengthen and widen the relation between the cooperating countries so that we could build bridges on their pillars. We do our best to make the cost-efficient new techniques widespread and available for everyone.

We have built up a centralized patient care system, sent our young talents for short term trainings to Western-Europe and since the last decade it has also become a tendency that we host those who would like to study at our institution.

In the beginning of my career, I worked two years in an EP lab in Heidelberg, Germany. The international working environment and the prominent German professors from whom I could learn had a big impression on me. It served as a benchmark when I later became Clinical Director.

In addition to leading a Center with 150 physicians and 450 employees, I am still clinically active every day. I perform one thousand diagnostic coronarographies and PCIs on a yearly basis as well as pacemaker, ICD, CRT, TAVI and Mitraclip implantations.

Two years ago, I also received the highest clinical position at the renowned Semmelweis University, as being appointed President of Semmelweis University Hospital and Vice-Rector for Clinical Affairs. Semmelweis University is a high-volume central facility with 8000 employees catering for 6 % of Hungary's healthcare needs and serving 2 million patients a year. Each month a tide of 145 000 outpatients and 12 000 inpatients passes through its 24 clinical departments. The University has six faculties, Faculty of Medicine, Dentistry, Pharmacy, Health Sciences (including nursing and physiotherapy), Health and Public Services, Pető Faculty of Habilitation and Rehabilitation and School of PhD Studies. Almost one-third (30.5%) of our students are foreign, coming from 74 countries all over the World.

I have been participating in the work of the European Society of Cardiology and its Associations for more than 21 years. From 1996 to 2004 I served as the National Delegate of the Working Group on Cardiac Pacing of ESC. In 2007 I became member of the National Societies Board of EHRA and I had worked in this board for six years. From 2009 to 2011 I was Co-chairman of the National Societies Committee of EHRA and in 2010 I was the organizer of an EHRA Summit in Budapest which attracted 200 registered participants from 31 countries. I also contributed to the work of the Credentials Committee of ESC during a few years from 2010 and the EuroPCR Relations Committee at EAPCI from 2011. Between 2013 and 2015 I was Treasurer and Executive Board Member of EHRA. From 2014 to 2016 I was Councillor

responsible for the Cardiologists of Tomorrow program and Board Member of ESC. From 2015 to 2017 I chaired the National Cardiac Societies Committee of EHRA. Since 2016 I have been serving the Board of the ESC as Vice-President for National Cardiac Societies, Editors Network and the Young.

At the Hungarian Society of Cardiology, I have also been holding offices for 22 years. I have been Secretary, Vice-President, President and Honorary President of the Hungarian Heart Rhythm Association, member of the Scientific Board and President of the Hungarian Association of Percutaneous Cardiovascular Intervention. From May 2010 to May 2013 I was President, from 2013 to 2016 I was Past-President of the Hungarian Society of Cardiology. Since May 2016 I have been President of the Scientific Committee. In May 2017 I received the Honorary President title of the Hungarian Society of Cardiology.

This experience gave me the opportunity to understand the structure and the operation of both the National Societies and the European Society of Cardiology and its Associations as well. Over the last decades, ESC has become the indisputable leader of the profession of cardiology worldwide. For now, it represents over 90.000. cardiology professionals which is an opportunity and in the same time a responsibility as well.

In Europe there are still large inequalities in the access of cardiovascular patients to certain novel pharmacological and non-pharmacological therapies. The occurrence of heart failure, arrhythmias, acute coronary syndromes and congenital heart disease is very high in Central-Eastern Europe; however, patients do not undergo the same treatment, do not have equal opportunities for recovery across Europe. According to the EP Supplement published in August 2016, the device implantation rates per million population were 3-6 times higher in the Western region than in the Eastern ESC member countries, for instance.

The reason is only partly economic. And I am convinced that the situation could be improved by raising awareness, implementing guidelines, harmonizing education and accreditation, and by procuring greater political and economic care and support for the prevention, treatment and rehabilitation. Atlas and White Book could provide a solid base for the discussion with the political leaders in each country. Their comprehensive data clearly shows the regional differences and the estimated healthcare demands.

In my view, such a large and prestigious medical society with the mission of reducing the burden of cardiovascular disease and keeping its finger on the pulse of cardiology cannot afford not to intervene in this unbalanced system. It is our common duty to eliminate these disparities. We should not let the countries in need to fight these battles alone. If we take steps together, it raises more awareness and we can make our voice heard better. In order to define the specific regional problems and obstacles in each country an Eastern Initiative Committee should be established. The committee's task would be the development of a unified international strategy on a professional, health economical and health political level that has to be customised for certain countries.

Traditionally, Central-Europe has one of the highest rates of cardiovascular disease in the world which is a legacy of our genetics, our lifestyle and our diet. About 35 % of the adults smoke and 25 % of the population has hypertension. When I was President of the Hungarian Society of Cardiology, working with the Ministry of Health, we launched lots of health promotion programs and media campaigns about healthy lifestyle and control of blood pressure. And for now, we have a complete ban on smoking in all public places. I think that Hungary has done an exemplary work in the respect of acceptance of novel pharmacological and non-pharmacological therapies. The Hungarian Society of Cardiology has been working for more than a decade so that today Hungary would meet the healthcare demands in every aspect. This should be an objective to be reached Europe wide.

As Vice-President for the National Societies, I had the opportunity to meet personally the leaders of about thirty National Societies. I learned a lot from these discussions about the problems and the needs of these countries. And I am persuaded that we have to go back to the roots and reassess what the National Cardiac Societies expect from ESC and our mutual collaboration in order to have the opportunity to fulfil these expectations. As Chair of the National Societies Committee of EHRA in December 2015, I also initiated the organization of a one-day conference entitled “Connecting EP Communities” with the same purpose. The representatives of 30 countries attended the meeting and the vibrant atmosphere justified the reason for existence of such meetings.

As a President Elect and later President, I would continue the work started by my predecessors, would respect the traditions of the European Society of Cardiology and continue the strategic plan of 2016-2020 with its five focus areas: individual membership, an adaptive congress model, enhanced advocacy capabilities, continuing education tools and a research think tank.

Herein I would take the opportunity to fine-tune a few things.

As for the membership, I find important that all the cardiologists who are members of their National Societies could be registered at ESC, thus would all become members of ESC. Despite the fact that we consider all national society members automatically qualify for ESC membership, there are countries which cannot declare their full membership as they cannot afford to pay the amount of EUR 2.90 per person as membership fee. While cooperating with the National Societies it would be worthwhile to work out special packages for the countries in need. The conditions of individual membership should also remain within the financial capacities of everyone. It would be good to see more Eastern European and non-European professional members in our ESC Professional Members’ Lounge. The case of Eastern Europe and the non-European countries should be treated separately, if we would like to achieve the new membership scheme to become truly open for everyone.

The “adaptive congress model” might be a little more adaptive. The congresses offer the best opportunities for raising awareness and for educating the professionals and therefore, we have to increase the participation of the National Societies and the Young by all circumstances. We should show some flexibility regarding how their congress attendance should be helped. There are National Societies for whom the 25 free congress registrations are better and there are others for whom 5 full travel grants (with free registration, travel and accommodation grant) would be more useful. Both of them could be part of a reward system. For example, in exchange for working in an EORP registry.

As ESC Board representative of the Young Community, I strongly support their proposal to have sessions with simulators, in which one top cardiologist could be invited to show how to use a device to one young cardiologist; to dedicate a special area for the Young with special features for them, to offer them a knowledge base to develop their professional knowledge and help them reach their career goals. This would also help them to create their network, to connect the Young Communities of the 56 ESC countries.

As Vice-President I often heard that the National Societies would promote the idea of holding joint-sessions with other National Societies at the ESC congresses. The Young Community would like to do the same. In my view, this is something that could be easily realized.

At the same time as ESC congress will remain the largest financial resource of ESC in the future as well, we have to work out how we could maintain or even increase our income from the congresses.

Cardiovascular disease accounts for 47% of all mortality in Europe. Advocacy is an important tool for the procurement of greater political and economic care for the prevention, the treatment and the rehabilitation of CV disease. The dialogue with the health stakeholders is mutually important for all of us. It is also their interest to support our mission as the CV disease costs the EU economy an estimated 196 billion Euros per year. I reckon that in this respect ESC has made significant steps forward, nevertheless, we have to pay attention to support the countries in need on a national level too.

I also find important to note that I stand for the strengthening of the cardiologist's role rather as a physician than a healthcare provider as being considered by the current Western-European tendency.

The most important forums of education are the congresses. However, regarding Central-Eastern Europe and the non-European National Societies there are two issues to tackle. On one hand, they are in general a bit underrepresented on international scientific forums. On the other hand, precisely the countries with low GDP and high-prevalence of CV deaths are often the ones who cannot afford to be present at ESC congresses. Besides the previously described solutions, I also support the idea of bringing the program of the ESC to their local congresses.

It is crucial for them that ESC should be represented on their national congresses with joint-sessions, discussing their country specific topics. I would count on the support of the full ESC Board in this respect, as these are also often the countries where it is very hard to get to. Hence we have to divide among us this time consuming mission if we want to help everyone, since it is essential to go there for raising awareness, for meeting national policy makers, for disseminating evidence-based scientific knowledge and as a result help them better care for their patients.

Still remaining on the field of education, I am also for the development of a knowledge base that improves the scientific knowledge of the Young. E-learning and webinars have to be affordable for them.

As the next ESC president is a real basic researcher whose program covers the whole spectrum of research from basic science to translational research, I am certain that the next term will bring meaningful advancement on this area. In the field of research my personal priority would be the promotion of the EORP program.

There is still a lack of enthusiasm from the side of many National Societies. In my view, the involvement of the Young could give a boost to these registries. The Young Community is eager to participate in the everyday life of ESC and they have great potential. The registries are optimal for them to support the core strategy of ESC through the strategic pillar of research.

In addition to the previously mentioned reward system, EORP also provides the opportunity for them to learn how to develop a good clinical investigation or observational study, to conduct a sub-study (using national and with authorization, European data) and to present and publish from the EORP registries. Those countries and young colleagues who enrolled the most patients could be involved in the ESC publications too.

By the EORP registries, we can also measure the implementation of guidelines and we could set up a country specific action plan. In these programs we should strongly rely on the Working Groups, Associations and National Societies.

This have been a few of my ideas, shaped and formed during my travels across Europe as Councilor and Vice President, by the discussions and the Leadership Meetings of the previous years. However, I find important to note that as a chair and a director I have learnt to value the view of my colleagues and to take them into account in my decision-making. In case of my election, I will be open for the ideas, the proposals and the opinion of my Board members.

All my tasks at the European Society of Cardiology, its Associations and at Semmelweis University converge in the direction of improving the healthcare system in Central-Eastern Europe to reduce the cardiovascular burden in the region. Besides, I would like to use my experience and the advantages provided by the ESC Presidency to have the specialty of cardiology, which shows an exponential development, to make use of these opportunities in Europe.

I reckon that I have the necessary experience to undertake the President Elect position with responsibility. In case of my election, I will do my best to help the European Society of Cardiology to realize its mission.

A handwritten signature in blue ink, appearing to read 'B. Merkely', with a stylized flourish at the end.

Béla Merkely MD, PhD, MSc, DSc, FESC
Vice President