# Curriculum Vitae

# Bela Merkely PhD, DSc, FESC, FACC

# Dr. Merkery Béla

### Place and Date of Birth

Budapest, 28 June 1966

### **Present Position and Address**

Rector – Semmelweis University (since July 2018)

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

Professor – Semmelweis University (since September 2008)

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

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

President – 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)

# PostGraduate Degrees

- 2017 Licence in transesophageal echocardiography
- 2017 Licence in transthoracic echocardiography
- 2017 Specialization exam in sports 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 2018- Member of the Committee for Practice Guidelin

2018-	Member of the Committee for Practice Guidelines
2016-2018	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-	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,
1990-1997	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- 1911)	Editor-in-Chief of the national medical journal "Medical Education" (founded in
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

2018	ESC Silver Medal
2018	Honorary Member of the Croatian Cardiac Society
2018	Honorary Award in appreciation of pioneering basic science and landmark clinical
	studies over many decades (Clinic for Cardiology and Angiology I., University Heart
	Center Freiburg)
2018	Honored Professor of the Scientific Research Institute of Cardiology and Internal
	Diseases (Award of the Ministry of Healthcare of the Republic of Kazakhstan and the
	Scientific Research Institute of Cardiology and Internal Diseases)

- 2017 Award for a More Promising Future, in appreciation of his outstanding effort to help underprivileged families
- 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 magnificient 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 Carieer 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 fur 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**

- 2018 Honorary Member of the Croatian Cardiac Society
- 2018 Honorary Award in appreciation of pioneering basic science and landmark clinical studies over many decades (Clinic for Cardiology and Angiology I., University Heart Center Freiburg)
- 2018 Honored Professor of the Scientific Research Institute of Cardiology and Internal Diseases (Award of the Ministry of Healthcare of the Republic of Kazakhstan and the Scientific Research Institute of Cardiology and Internal Diseases)
- 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. Stone GW, Kappetein AP, Sabik JF, Pocock SJ, Morice MC, Puskas J, Kandzari DE, Karmpaliotis D, Brown WM 3rd, Lembo NJ, 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 PE, Bochenek A, Schampaert E, Pagé P, Modolo R, Gregson J, Simonton CA, Mehran R, Kosmidou I, Généreux P, Crowley A, Dressler O, Serruys PW; EXCEL Trial Investigators:

  Five-Year Outcomes after PCI or CABG for Left Main Coronary Disease.

  NEJM [Epub ahead of print 2019 Sep 28] \***IF: 70,670.**
- 2. Windecker S, Lopes RD, Massaro T, Jones-Burton C, Granger CB, Aronson R, Heizer G, Goodman SG, Darius H, Jones WS, Aschermann M, Brieger D, Cura F, Engstrøm T, Fridrich V, Halvorsen S, Huber K, Kang HJ, Leiva-Pons JL, Lewis BS, Malaga G, Meneveau N, **Merkely B**, Milicic D, Morais J, Potpara TS, Raev D, Sabaté M, de Waha-Thiele S, Welsh RC, Xavier D, Mehran R, Alexander JH; AUGUSTUS Investigators:
  - Antithrombotic Therapy in Patients with Atrial Fibrillation and Acute Coronary Syndrome Treated Medically or with Percutaneous Coronary Intervention or Undergoing Elective Percutaneous Coronary Intervention: Insights from the AUGUSTUS Trial.

Antithrombotic Therapy in Patients with Atrial Fibrillation and Acute Coronary Syndrome Treated Medically or with Percutaneous Coronary Intervention or Undergoing Elective Percutaneous Coronary Intervention: Insights from the AUGUSTUS Trial.

Circulation [Epub ahead of print 2019 Sep 26] \*IF: 23,054.

3. McMurray JJV, Solomon SD, Inzucchi SE, Køber L, Kosiborod MN, Martinez FA, Ponikowski P, Sabatine MS, Anand IS, Bělohlávek J, Böhm M, Chiang CE, Chopra VK, de Boer RA, Desai AS, Diez M, Drozdz J, Dukát A, Ge J, Howlett JG, Katova T, Kitakaze M, Ljungman CEA, **Merkely B**, Nicolau JC, O'Meara E, Petrie MC, Vinh PN, Schou M, Tereshchenko S, Verma S, Held C, DeMets DL, Docherty KF, Jhund PS, Bengtsson O, Sjöstrand M, Langkilde AM; DAPA-HF Trial Committees and Investigators:

Dapagliflozin in Patients with Heart Failure and Reduced Ejection Fraction. NEJM [Epub ahead of print 2019 Sep 19] \***IF: 70,670.** 

4. Howlett JG, Stebbins A, Petrie MC, Jhund PS, Castelvecchio S, Cherniavsky A, Sueta CA, Roy A, Piña IL, Wurm R, Drazner MH, Andersson B, Batlle C, Senni M, Chrzanowski L, **Merkely B**, Carson P, Desvigne-Nickens PM, Lee KL, Velazquez EJ, Al-Khalidi HR; STICH Trial Investigators:

CABG Improves Outcomes in Patients With Ischemic Cardiomyopathy: 10-Year Follow-Up of the STICH Trial.

JACC Heart Fail [Epub ahead of print 2019 Sep 7] \*IF: 8,910.

5. Bauer A; Klemm M; Rizas KD; Hamm W; von Stülpnagel L; Dommasch M; Steger A; Lubinski A; Flevari P; Harden M; Friede T; Kääb S; **Merkely B**; Sticherling C; Willems R; Huikuri H; Malik M; Schmidt Zabel M; and the EU-CERT-ICD Investigators:

Prediction of mortality benefit based on periodic repolarization dynamics in patients undergoing prophylactic implantation of a defibrillator: a prospective, controlled, multicentre cohort study.

Lancet [Epub ahead of print 2019 Sep 2] IF: 59,102.

6. Solomon SD, McMurray JJV, Anand IS, Ge J, Lam CSP, Maggioni AP, Martinez F, Packer M, Pfeffer MA, Pieske B, Redfield MM, Rouleau JL, van Veldhuisen DJ, Zannad F, Zile MR, Desai AS, Claggett B, Jhund PS, Boytsov SA, Comin-Colet J, Cleland J, Düngen HD, Goncalvesova E, Katova T, Kerr Saraiva JF, Lelonek M, Merkely B, Senni M, Shah SJ, Zhou J, Rizkala AR, Gong J, Shi VC, Lefkowitz MP; PARAGON-HF Investigators and Committees:

Angiotensin-Neprilysin Inhibition in Heart Failure with Preserved Ejection Fraction. NEJM [Epub ahead of print 2019 Sep 1] **IF: 70,670.** 

7. Merino JL, Lip GYH, Heidbuchel H, Cohen AA, De Caterina R, de Groot JR, Ezekowitz MD, Le Heuzey JY, Themistoclakis S, Jin J, Melino M, Winters SM, Merkely B, Goette A:

Determinants of left atrium thrombi in scheduled cardioversion: an ENSURE-AF study analysis.

Europace [Epub ahead of print 2019 Aug 22] IF: 6,100.

8. Metra M, Teerlink JR, Cotter G, Davison BA, Felker GM, Filippatos G, Greenberg BH, Pang PS, Ponikowski P, Voors AA, Adams KF, Anker SD, Arias-Mendoza A, Avendaño P, Bacal F, Böhm M, Bortman G, Cleland JGF, Cohen-Solal A, Crespo-Leiro MG, Dorobantu M, Echeverría LE, Ferrari R, Goland S, Goncalvesová E, Goudev A, Køber L, Lema-Osores J, Levy PD, McDonald K, Manga P, Merkely B, Mueller C, Pieske B, Silva-Cardoso J, Špinar J, Squire I, Stępińska J, Van Mieghem W, von Lewinski D, Wikström G, Yilmaz MB, Hagner N, Holbro T, Hua TA,

Sabarwal SV, Severin T, Szecsödy P, Gimpelewicz C; RELAX-AHF-2 Committees Investigators:

Effects of Serelaxin in Patients with Acute Heart Failure.

NEJM 2019; 381(8): 716-726. IF: 70,670.

- 9. Kolossváry M, Karády J, Kikuchi Y, Ivanov A, Schlett CL, Lu MT, Foldyna B, Merkely B, Aerts HJ, Hoffmann U, Maurovich-Horvat P:
  Radiomics versus Visual and Histogram-based Assessment to Identify Atheromatous Lesions at Coronary CT Angiography: An Ex Vivo Study.
  Radiology 2019; 293(1): 89-96. IF: 7,608.
- 10. Bertaglia E, Blank B, Blomström-Lundqvist C, Brandes A, Cabanelas N, Dan GA, Dichtl W, Goette A, de Groot JR, Lubinski A, Marijon E, **Merkely B**, Mont L, Piorkowski C, Sarkozy A, Sulke N, Vardas P, Velchev V, Wichterle D, Kirchhof P: Atrial high-rate episodes: prevalence, stroke risk, implications for management, and clinical gaps in evidence.

  Europace [Epub a head of print 2019 Aug 3] **IF: 6,100.**
- 11. Csecs I, Czimbalmos C, Toth A, Dohy Z, Suhai IF, Szabo L, Kovacs A, Lakatos B, Sydo N, Kheirkhahan M, Peritz D, Kiss O, **Merkely B\***, Vago H\*: The impact of sex, age and training on biventricular cardiac adaptation in healthy adult and adolescent athletes: Cardiac magnetic resonance imaging study. Eur J Prev Cardiol [Epub ahead of print 2019 Aug 1.] **IF: 5,640.**
- 12. Gara E, Csikó KG, Ruzsa Z, Földes G, **Merkely B:**Anti-cancer drugs-induced arterial injury: risk stratification, prevention, and treatment.
  Med Oncol 2019; 36(8): 72. \***IF: 3,252.**
- 13. Simon J, Nemeth E, Nemes A, Husveth-Toth M, Radovits T, Foldes G, Kiss L, Bagyura Z, Skopal J, **Merkely B**, Gara E: Circulating Relaxin-1 Level Is a Surrogate Marker of Myocardial Fibrosis in HFrEF. Front Physiol 2019; 10: 690. \***IF: 3,201.**
- 14. Aradi D, Gross L, Trenk D, Geisler T, **Merkely B**, Kiss RG, Komócsi A, Dézsi CA, Ruzsa Z, Ungi I, Rizas KD, May AE, Mügge A, Zeiher AM, Holdt L, Huber K, Neumann FJ, Koltowski L, Huczek Z, Hadamitzky M, Massberg S, Sibbing D: Platelet reactivity and clinical outcomes in acute coronary syndrome patients treated with prasugrel and clopidogrel: a pre-specified exploratory analysis from the TROPICAL-ACS trial.

  Eur Heart J 2019; 40(24): 1942-1951. **IF: 23,239.**
- 15. Gellér L, Salló Z, Molnár L, Tahin T, Özcan EE, Kutyifa V, Osztheimer I, Szilágyi S, Szegedi N, Ábrahám P, Apor A, Nagy KV, Kosztin A, Becker D, Herczeg S, Zima E, Merkely B:

  Long-term single-centre large volume experience with transseptal endocardial left ventricular lead implantation.

  Europace [Epub ahead of print 2019 Jun 5] \*IF: 6,100.
- 16. Torri F, Czimbalmos C, Bertagnolli L, Oebel S, Bollmann A, Paetsch I, Jahnke C, Arya A, **Merkely B**, Hindricks G, Dinov B:

Agreement between gadolinium-enhanced cardiac magnetic resonance and electroanatomical maps in patients with non-ischaemic dilated cardiomyopathy and ventricular arrhythmias.

Europace 2019; 21(9): 1392-1399. \*IF: 6,100.

17. Nardai S, Végh E, Óriás V, Nemes B, Tóth J, Hüttl A, Hüttl K, Avantadil B, Bertrand OF, **Merkely B**, Ruzsa Z:

Feasibility of distal radial access for carotid interventions: the RADCAR-DISTAL pilot study.

EuroIntervention [Epub ahead of print 2019 Apr 30] \*IF: 4,018.

18. Hein R, Gross L, Aradi D, Rieber J, Hadamitzky M, **Merkely B**, Huczek Z, Ince H, Hummel A, Baylacher M, Massberg S, Trenk D, Sibbing D, Geisler T, Huber K, Nagy FT, Dézsi CA, Koltowski L, Mudra H, Löw A, Deuschl S Diabetes and Outcomes following Guided De-Escalation of Antiplatelet Treatment in Acute Coronary Syndrome Patients Undergoing Percutaneous Coronary Intervention: A Prespecified Analysis from the Randomized TROPICAL-ACS Trial.

EuroIntervention 2019; 15(6): e513-e521. \*IF: 4,018.

19. Kovács A, Lakatos B, Tokodi M, **Merkely B:** 

Right ventricular mechanical pattern in health and disease: beyond longitudinal shortening.

Heart Fail Rev 2019; 24(4): 511-520. \*IF: 4,015.

- 20. Kolossváry M, Park J, Bang JI, Zhang J, Lee JM, Paeng JC, **Merkely B**, Narula J, Kubo T, Akasaka T, Koo BK, Maurovich-Horvat P: Identification of invasive and radionuclide imaging markers of coronary plaque vulnerability using radiomic analysis of coronary computed tomography angiography. Eur Heart J Cardiovasc Imaging [Epub ahead of print 2019 Mar 5] \***IF: 5,260.**
- 21. Szegedi N, Széplaki G, Herczeg S, Tahin T, Salló Z, Nagy VK, Osztheimer I, Özcan EE, **Merkely B**, Gellér L:

Repeat procedure is a new independent predictor of complications of atrial fibrillation ablation.

Europace 2019; 21(5): 732-737. \***IF: 6,100.** 

22. Sorbets E, Steg PG, Young R, Danchin N, Greenlaw N, Ford I, Tendera M, Ferrari R, **Merkely B**, Parkhomenko A, Reid C, Tardif JC, Fox KM:

 $\beta$ -blockers, calcium antagonists, and mortality in stable coronary artery disease: an international cohort study.

Eur Heart J 2019; 40(18): 1399-1407. \*IF: 23,239.

Zabel M, Sticherling C, Willems R, Lubinski A, Bauer A, Bergau L, Braunschweig F, Brugada J, Brusich S, Conen D, Cygankiewicz I, Flevari P, Taborsky M, Hansen J, Hasenfuß G, Hatala R, Huikuri HV, Iovev S, Kääb S, Kaliska G, Kasprzak JD, Lüthje L, Malik M, Novotny T, Pavlović N, Schmidt G, Shalganov T, Sritharan R, Schlögl S, Szavits Nossan J, Traykov V, Tuinenburg AE, Velchev V, Vos MA, Willich SN, Friede T, Svendsen JH, **Merkely B**; EU-CERT-ICD Study Investigators: Rationale and design of the EU-CERT-ICD prospective study: comparative effectiveness of prophylactic ICD implantation.

- ESC Heart Fail 2019; 6(1): 182-193. **IF: 3,407.**
- 24. Kotecha D, Bax JJ, Carrera C, Casadei B, **Merkely B**, Anker SD, Vardas PE, Kearney PP, Roffi M, Ros M, Vahanian A, Weidinger F, Beeri R, Budaj A, Calabrò P, Czerwinska-Jelonkiewicz K, D'Ascenzi F, De Potter T, Fox KF, Hartikainen J, McAdam B, Milicic D, Pasquet AA, Sionis A, Sohaib SMA, Tsioufis C, Verhorst PMJ, Kirchhof P; ESC Scientific Document Group; 2016 ESC Education Conference: Roadmap for cardiovascular education across the European Society of Cardiology: inspiring better knowledge and skills, now and for the future. Eur Heart J 2019; 40(21): 1728-1738. \***IF: 23,239.**
- 25. Pólos M; Kovács A; Németh E; **Merkely B**:
  Acute thrombosis of the ascending aorta causing right ventricular failure: first manifestation of antiphospholipid syndrome.
  Eur J Cardio-Thorac Surg 2019; 55(2): 371-373. \***IF: 3,847.**
- 26. Gyánó M, Góg I, Óriás VI, Ruzsa Z, Nemes B, Csobay-Novák C, Oláh Z, Nagy Z, Merkely B, Szigeti K, Osváth S, Sótonyi P: Kinetic Imaging in Lower Extremity Arteriography: Comparison to Digital Subtraction Angiography. Radiology 2019; 290(1): 246-253. \*IF: 7,608.
- 27. Perge P\*, Boros AM\*, Szilágyi S, Zima E, Molnár L, Gellér L, Prohászka Z, **Merkely B\***, Széplaki G\*:
  Novel Biomarkers in Cardiac Resynchronization Therapy: Hepatocyte Growth Factor Is an Independent Predictor of Clinical Outcome.
  Rev Esp Cardiol 2019; 72(1): 48-55. \***IF**: **5,126.**
- 28. 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, Tsatsaris A, Kerneis M, Diallo A, Vicaut E, Montalescot G; ATLANTIC investigators:

  Clinical impact and predictors of complete ST segment resolution after primary percutaneous coronary intervention: A subanalysis of the ATLANTIC Trial.

  Eur Heart J Acute Cardiovasc Care 2019; 8(3): 208-217. \*IF: 3,734.
- 29. Édes IF, Ruzsa Z, Lux Á, Gellér L, Molnár L, Nowotta F, Kerülő MC, Becker D, Merkely B: Acute, total occlusion of the left main stem: coronary intervention options, outcomes, and recommendations. Postepy Kardiol Interwencyjnej 2018; 14(3): 233-239. IF: 1,160.
- 30. Chen S, Redfors B, Liu Y, Ben-Yehuda O, Morice MC, Leon MB, Kandzari DE, Mehran R, Lembo NJ, Banning AP, Merkely B, Kappetein AP, Sabik JF 3rd, Serruys PW, Stone GW:
  Radial versus femoral artery access in patients undergoing PCI for left main coronary artery disease: analysis from the EXCEL trial.
  EuroIntervention 2018; 14(10): 1104-1111. IF: 4,018.
- 31. Kosztin A, Boros AM, Geller L, Merkely B:

Cardiac resynchronization therapy: current benefits and pitfalls. Kardiol Pol 2018; 76(10): 1420-1425. IF: 1,674.

32. Sibbing D, Gross L, Trenk D, Jacobshagen C, Geisler T, Hadamitzky M, Merkely B, Kiss RG, Komócsi A, Parma R, Felix SB, Neumann FJ, Hausleiter J, Baylacher M, Koltowski L, Mehilli J, Huber K, Huczek Z, Aradi D, Massberg S; TROPICAL-ACS Investigators:

Age and outcomes following guided de-escalation of antiplatelet treatment in acute coronary syndrome patients undergoing percutaneous coronary intervention: results from the randomized TROPICAL-ACS trial.

Eur Heart J 2018; 39(29): 2749-2758. IF: 23,239.

33. Janssens SP, Bogaert J, Zalewski J, Toth A, Adriaenssens T, Belmans A, Bennett J, Claus P, Desmet W, Dubois C, Goetschalckx K, Sinnaeve P, Vandenberghe K, Vermeersch P, Lux A, Szelid Z, Durak M, Lech P, Zmudka K, Pokreisz P, Vranckx P, Merkely B, Bloch KD, Van de Werf F; NOMI investigators: Nitric oxide for inhalation in ST-elevation myocardial infarction (NOMI): a multicentre, double-blind, randomized controlled trial. Eur Heart J 2018; 39(2): 2717-2725. IF: 23,239.

Wijns W, Valdes-Chavarri M, Richardt G, Moreno R, Íñiguez-Romo A, Barbato E, 34. Carrié D, Ando K, Merkely B, Kornowski R, Eltchaninoff H, Stojkovic S, Saito S: Long-term clinical outcomes after bioresorbable and permanent polymer drug-eluting stent implantation: final five-year results of the CENTURY II randomised clinical trial.

EuroIntervention 2018; 14(3): 343-351. IF: 4,018.

- 35. Özcan EE; Öztürk A; Özel E; Şenarslan Ö; Merkely B; Gellér L: The impact of the left ventricular pacing polarity and localization during cardiac resynchronization therapy on depolarization and repolarization parameters. Anat J Cardiol 2018; 19(4): 237-242. IF: 1,112.
- 36. Dan GA, Martinez-Rubio A, Agewall S, Boriani G, Borggrefe M, Gaita F, van Gelder I, Gorenek B, Kaski JC, Kjeldsen K, Lip GYH, Merkely B, Okumura K, Piccini JP, Potpara T, Poulsen BK, Saba M, Savelieva I, Tamargo JL, Wolpert C; ESC Scientific **Document Group:**

Antiarrhythmic drugs-clinical use and clinical decision making: a consensus document from the European Heart Rhythm Association (EHRA) and European Society of Cardiology (ESC) Working Group on Cardiovascular Pharmacology, endorsed by the Heart Rhythm Society (HRS), Asia-Pacific Heart Rhythm Society (APHRS) and International Society of Cardiovascular Pharmacotherapy (ISCP). Europace 2018; 20(5): 731-732an. IF: 6,100.

Marrouche NF, Brachmann J, Andresen D, Siebels J, Boersma L, Jordaens L, 37. Merkely B, Pokushalov E, Sanders P, Proff J, Schunkert H, Christ H, Vogt J, Bänsch D; CASTLE-AF Investigators:

Catheter Ablation for Atrial Fibrillation with Heart Failure.

NEJM 2018; 378(5): 417-427. IF: 70,670.

38. *Nagy KV\*, Széplaki G\**, Perge P, Boros AM, Kosztin A, Apor A, Molnár L, Szilágyi S, Tahin T, Zima E, Kutyifa V, Gellér L, **Merkely B:** 

Quality of life measured with EuroQol-five dimensions questionnaire predicts long-term mortality, response, and reverse remodelling in cardiac resynchronization therapy patients.

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3 edited books, 2 specialized books, 42 book chapters (6 in English language, 36 Hungarian), 2 university broadsheets, contribution to 18 university coursebook chapters

529 international and 250 Hungarian articles,

• Cumulative impact factor: 2654,31

• Independent citations: 20.772.

Hirsch index: 39

• q-index: 81

• MTMT ID: 10002691

### Major Research Interest

- Non-pharmacological treatment of heart failure
- New techniques in interventional cardiology
- Invasive and noninvasive imaging in heart failure
- Arrhythmias and acute coronary syndromes
- Sport cardiology, cardiac remodeling of elite athletes

# **Motivation Letter**

It is my great pleasure and honour to seek nomination as Secretary Treasurer of the European Society of Cardiology. As Rector of the oldest continuously operating medical university in Hungary, which is celebrating its 250-year anniversary this year, I am responsible for the financial stability, the budgeting and the control of assets of a large institution and therefore, the tasks of a Treasurer belong to my everyday life. As Director of Semmelweis University's Heart and Vascular Center, I have been taking care of the good financial standing of the Clinic for twelve years. I am adept in strategy development and overseeing financial and audit reports. Besides, I have already served as Treasurer at the European Heart Rhythm Association.

I have a long-standing commitment with ESC. I have been participating in the work of the European Society of Cardiology and its Associations for twenty-three 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 worked on 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 two hundred registered participants from thirty-one countries. I also contributed to the work of the Credentials Committee of ESC for 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. Between 2016 and 2018 I served the ESC Board as Vice-President for National Cardiac Societies, Editors Network and the Young. Since 2018 I have been working in the Committee for Practice Guidelines.

At the Hungarian Society of Cardiology, I have been holding offices for twenty-four 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. Between 2016 and 2019 I was President of the Scientific Committee. In May 2017 I received the Honorary President title of the Hungarian Society of Cardiology.

Semmelweis University's Heart and Vascular Center, the director and chairman of which I have been for twelve years, offers a wide spectrum of services, including cardiology, heart surgery, vascular surgery, cardiac imaging and interventional radiology. Besides of widespread clinical investigations, also the 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 fifty 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 postgradual specialty training, preparing the applicants for basic and higher-level specialty Board Exams and we also have a highly successful doctoral school.

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. As a sports cardiologist and waterpolo player, I have always had a personal interest in sports. In 2017 I was the Chief Medical Officer of the FINA Aquatic World Championship, since then I have been member of the Sports Medicine Committee. I am also the physician of the Hungarian National Swimming and Waterpolo Teams.

I took my rector's oath in June 2018 and I am proud to be the Rector of one of Central Europe's most prestigious universities and knowledge centres in the field of medicine and the health sciences, but there is always room to grow and to become better. Our vision is to be one of Europe's leading institutions within the next decade. To realize this goal, Semmelweis University's 250th anniversary is intertwined with a consistent and complex development strategy that aims to realize an overarching reform in the fields of education, research and healthcare. This development strategy is driven by the increasingly rapid and complex changes and challenges in healthcare and higher education. As the amount of knowledge in the area of the medical and health sciences practically doubles every two years, it is crucial not to simply follow trends, but to be a kind of "trailblazer" by generating new forms of knowledge, internationally competitive education programmes, procedures and patents. We have many projects underway in order to achieve our goals. One of the most important among these is the introduction of a reformed medical curriculum to increase the role of practice-oriented training in our teaching programmes. The continuous quality improvement of our healthcare services and the modernization of our infrastructure is also a priority to ensure the most efficient use of our high-quality healthcare capacities and to provide the highest level care for those in need.

We are strongly committed to bringing the university closer to the health industry and generating innovative scientific output that can directly be used in clinical practice and in the market. A great example of these efforts is our undergoing project: the Health Industry-Biotechnology Science Park. It is planned to be one of the largest biomedical research and innovation centres in the region which will play a defining role in the renewal of the basis of research and knowledge.

Besides the previously mentioned commitments, I am still clinically active. I perform one thousand diagnostic coronarographies and PCIs on a yearly basis as well as pacemaker, ICD, CRT, TAVI and Mitraclip implantations.

My experience with the European Society of Cardiology and our National Society spans more than two decades now and has given 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. ESC has become the leading society of cardiology worldwide, both in scientific and in social aspects. We can be proud of our professional community. Nevertheless, there are certain areas and issues to which I would like to pay special attention if I receive the opportunity of joining the leadership of the organisation.

In Europe, there are still large inequalities when it comes to 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 treatments, they do not have equal opportunities for recovery across Europe. The reason for this phenomenon is only partly economic and could be probably 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 of cardiovascular diseases.

The most important forums of education are the congresses. Nonetheless, regarding Central-Eastern Europe and the non-European National Societies, there seem to be two crucial issues to tackle. On one hand, they are somewhat underrepresented as a group on international scientific forums. On the other hand, precisely those 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 direct support of their congress attendance with grants, 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 like to ask for the support of the full ESC Board in this respect, as these are also often the countries which are the most difficult to travel to. Hence, we have to divide among us this time-consuming mission if we want to help everyone, since it is essential to visit these countries to raise awareness, to meet national policy makers, to disseminate evidence-based scientific knowledge, and, as a result, to help them to give better treatment and care to their patients.

As Vice-President for the National Societies, I had the opportunity to meet the leaders of about thirty National Societies in person. I learned a lot from these discussions about the problems and the needs of these countries. I find it important to reassess what the National Societies expect from ESC and to try to meet these expectations.

As for the membership, I find it important that all the cardiologists who are members of their National Societies could be registered at ESC, and thus they would all become members of ESC. Despite the fact that 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 design special packages for the countries in need.

Certain National Societies prefer twenty-five free congress registrations, while some others can make more use of five full travel grants (with free registration, travel and accommodation

expenses being covered). Both approaches could be part of a reward system, for example, in exchange for working in an EORP registry.

The landscape of medicine is rapidly changing. The role of industry and insurance companies is continuously increasing, while physicians become less "free professionals". A silent transformation of physicians to healthcare providers is taking place. In my opinion, ESC as the most influential scientific medical society has not fully achieved its lobbying potential yet. Physicians need better armamentarium to handle the "predators" of the industry and the insurance companies. They need better and more independent education as well as cutting-edge skills in healthcare management.

These are a few of my ideas and observations. I reckon that I have the necessary experience to undertake the Secretary Treasurer position with responsibility. In the case of my election, I will do my best to help the European Society of Cardiology to realize its mission.

Budapest, 11 November 2019

Béla Merkely MD, PhD, MSc, DSc, FESC, FACC Rector of the Semmelweis University Director of Semmelweis University's Heart and Vascular Center Honorary President of the Hungarian Society of Cardiology