

Curriculum Vitae

<p>NAME Guzik, Tomasz J. DoB: 08.03.1974</p> <p>Clinician Scientist;</p> <p>Nationality: British; Polish</p> <p>EDUCATION/TRAINING</p>	<p>POSITION TITLE Regius Professor of Physiology and Cardiovascular Medicine, University of Glasgow, Consultant Physician; Queen Elizabeth University Hospital; Glasgow, UK</p> <p>Editor-in-Chief Cardiovascular Research</p> <p>Professor of Medicine, Department of Internal and Agricultural Medicine, Jagiellonian University Collegium Medicum, Krakow, Poland</p>
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INSTITUTION AND LOCATION	DEGREE	YEAR	FIELD OF STUDY
Jagiellonian University, Krakow, Poland	MD/PhD	1998/2001	Medicine / PhD Clin Immunol
University of Oxford, UK	MSc	2001	Molecular Medicine
Jagiellonian University, Krakow, PL	Habilitation	2004	Clinical Pharmacology
Emory University Sch. of Medicine, Atlanta	P/doc A/Prof	2005-2008	Vascular Biology
Specialist Exam: General Med / Sp Allergy	Specialist	2005/2010	Internal Medicine / Allergy

Languages: English, Polish, German, Russian

MAIN SCIENTIFIC EXPERTISE: Hypertension, Vascular Dysfunction, Translational Medicine, Oxidative stress, Clinical Immunology

POSITIONS (chronological order)

- 1998-1999 Internship, University Hospital, Cracow, Poland
- 1999-2001 Master of Science; University of Oxford; then 2002-2005 – Visiting post-doctoral Scientist Oxford, UK
- 2002-2005 Clinical Internal Medicine Trainee; J Dietl Hospital, Krakow, PL
- 2005-2006 Postdoc, Emory University School of Medicine, Atlanta, GA, USA
- 2007-2008 Assistant Professor of Cardiology, Emory University School of Medicine, Atlanta, GA, USA
- 2008-2009 Clinical Allergy Trainee, J Dietl Hospital, Krakow, PL
- 2008- Professor of Medicine, Department of Medicine, Jagiellonian University, Krakow, PL
- 2013- Regius Professor of Physiology and Cardiovascular Medicine, ICAMS, University of Glasgow, UK

AWARDS AND HONOURS (selected):

- 1998 Crescendum Est Polonia Foundation Fellowship
- 2000 The Wellcome Trust IRD Award
- 2005 Prime Minister Award for best Habilitation thesis, Poland
- 2009 International Atherosclerosis Society Award;
- 2008, 2011 EMBO Young Investigator Program Membership (Integration)
- 2010 Wellcome Trust Senior Biomed. Fellowship (International)
- 2010 Foundation for Polish Science Award (the most prestigious award in Poland)
- 2010 Prize for the Discovery in Medicine (Academy of Arts and Sciences)
- 2013 Hon Fellow of the American College of Physicians
- 2013 Prime Minister Award for Excellence, PL
- 2013 Alberto Ferrari Prize; European Society for Hypertension
- 2015 Bernard and Joan Marshall International Award in Research Excellence; UK
- 2017 Arthur Corcoran Award in Hypertension; American Heart Association, USA (second most important award in hypertension research worldwide)
- 2019 Jagiellonian Laur; Main Scientific Award of Jagiellonian University (est. 1364)
- 2020 J Sniadecki Award of Polish Academy of Sciences

LEADERSHIP ROLES

- 2005-2009 V-ce President; Polish Society for Atherosclerosis Research (member of IAS)
2009-2012 President, Polish Society for Atherosclerosis Research (member of IAS)
2012-2016 President, Polish Internist Society (ca. 4500 members)
2010 -2014 Member, Nucleus of European Society of Cardiology (ESC) Working Group for Vascular Biology and Atherosclerosis (elected)
2010-present Chairman, National Scientist Mobility Executive Committee, Ministry of Science and Higher Education, Poland
2009-2012 Member, Steering Committee: International APOLLO Study
2012-now Member, Steering Committee: COMPASS Trial
2012-2015 Member, Management Committee EU-ROS COST Action
2014-2016 Advisory Committee on Science Policy, Ministry of Science, Republic of Poland
2017- Committee Member; British Atherosclerosis Society
2017- European Cardiology Think Tank – Advisory Body for the ESC President
2016-2018 Advisor to the President of the EU for Science Policy
2018- Member of the Board of Trustees; Foundation for Polish Science, Poland
2018-2020 Chair, Research and Grants Committee, European Society of Cardiology;
2020- Chair, Publications Committee, European Society of Cardiology;
2020- Chair, Awards Committee; International Society of Hypertension
2021- Treasurer, British Atherosclerosis Society

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

European Society of Cardiology (FESC since 2018), British Atherosclerosis Society, British Cardiac Society, American Heart Association, European Vascular Biology Organization, American Physiological Society, International Society of Hypertension, European Society of Hypertension

ORGANISATION OF SCIENTIFIC MEETINGS (selected)

Chair of Scientific Committee: ISH/ESH Hypertension 2020

Program Committee and Organizing Committee: CPC member – ESC (2018-2022); American Physiological Society Symposium: Inflammation, Immunity and CVD; Colorado, USA (2010); *Head of Organizing Committee;* International Atherosclerosis Society Satellite Symposium, Krakow, PL (2010) *Co-Chair;* Australian-European Meeting of Immune Mechanisms of Vascular Disease and Stroke, Prato, Italy (2013) and Krakow (2015); *Member of Local Organizing Committee;* EVBO Meeting (European Vascular Biology Meeting), Krakow, PL; *Co-Chair;* Meeting of the Polish Internist Society (2014, Warsaw; 2015, Krakow) Poland (2100 participants)

EDITORIAL BOARD and EDITOR

Editor-in-Chief: Cardiovascular Research (Impact Factor-10,3)

Specialty Editor: European Heart Journal

Editorial Board Member: Hypertension, Clinical and Experimental Pharmacology and Physiology, The Nitric Oxide Journal

Section Editor/Guest Editor: Thrombosis and Hemostasis, Antioxidant & Redox Signalling (Guest editor); Journal of Stomatology (Section Editor, Oral Medicine); Journal of Pre-Clinical and Clinical Research

Deputy Editor: Polish Archives for Internal Medicine (PAMW: 2010-2012 – best journal in PL)

INVITED/PLENARY PRESENTATIONS (selected)

American Heart Association Scientific Sessions (invited presentations; chairing): 2007, 2009-2020

European Society of Cardiology Congress (invited presentations; chairing): 2008, 2011, 2012-2021

World Cardiology Congress (invited presentations; chairing sessions): 2010, 2012, 2014

GRANT ASSESSMENT PANELS (selected)

BHF (**Chairs and Program Grants Committee** Member 2021-); Swiss National Foundation; Portuguese Science Foundation; European Research Council

COMPETITIVE RESEARCH SUPPORT (Selected):

ERA_NET CVD (CV Medicine; 2018-2021): **PLAQUEFIGHT**: Targetting neuro-immune interfaces in atherosclerosis; **ERC (European Research Council)** **InflammaTENSION**; **British Heart Foundation**: Project grants; **EMBO** (European Molecular Biology Organization) „Chemokines in the regulation of vascular dysfunction; **FNP Wellcome Program** (2010-2015): Immunity in hypertension; **Wellcome Trust Senior Research Fellowship** (2011-2016) „Perivascular tissue in hypertension and vascular dysfunction” **Marie Skłodowska-Curie CIG (2014-2018)**: Immune mechanisms of hypertension. **EUFP7-REGPOT (2011-2015)** “OMICRON” project: High throughput technologies at JU; **EU-ROS COST EU** (Management Committee)

Publications: 35 papers cited >100; Total citations: 16800; H-factor (ISI WoS): 61

Selected top cited main author papers:

1. Guzik TJ , Hoch NE, Brown K, McCann L, Rahman A, Dikalov S, Goronzy J, Weyand C, Harrison DG: Role of the T-Cell in the Genesis of Angiotensin II-Induced Hypertension and Vascular Dysfunction, J Exp Med , 2007, 204:2449-2460.	1150
2. Guzik TJ , Mussa S., Gastaldi D., Sadowski J., Ratnatunga C., Pillai R., Channon KM.: Mechanisms of increased vascular superoxide generation in human diabetes mellitus. Importance of NAD(P)H oxidase and eNOS. Circulation , 2002, 105 (14): 1656-62.	850
3. Guzik TJ , West N., Black E., McDonald D., Ratnatunga C., Pillai R., Channon KM.: Vascular superoxide production by NAD(P)H oxidase: association with endothelial dysfunction and clinical risk factors. Circ Res .2000, 86(9):e85-90.	580
4. Alp NJ, Mussa S, Koo J, Cai S, Guzik TJ , Jefferson A, Goh N, Channon KM: Tetrahydrobiopterin-dependent preservation of NO-mediated endothelial function in diabetes by targeted transgenic GTP-Cyclohydrolase I overexpression. J Clin Invest , 2003,112:725-735. –	310
5. Vinh A, Chen W., Blinder Y, Weiss D, Taylor RW, Goronzy JJ, Weyand CM, Harrison DG, and Guzik TJ : Inhibition and Genetic Ablation of the B7/CD28 T cell Costimulation Axis Prevents Experimental Hypertension. Circulation , 2010, 122(24):2529-37.	260
6. Guzik TJ , West N, Black E, McDonald D, Ratnatunga C, Pillai R, Channon KM: Functional effects of C242T polymorphism in NADPH oxidase p22phox. Circulation , 2000, 102:1744-7.	233
7. Madhur MS, Lob HE, McCann LA, Iwakura Y, Blinder Y, Guzik TJ , Harrison DG.: Interleukin 17 promotes angiotensin II-induced hypertension and vascular dysfunction. Hypertension . 2010, 55(2):500-7.	427
8. Harrison DG, Guzik TJ , Lob HE, Madhur MS, Marvar PJ, Thabet SR, Vinh A, Weyand CM.: Inflammation, immunity, and hypertension. Hypertension . 2011 , 57(2):132-40.	510
9. Marvar PJ, Thabet SR, Guzik TJ , Lob HE, McCann LA, Weyand C, Gordon FJ, Harrison DG.: Central and peripheral mechanisms of T-lymphocyte activation and vascular inflammation produced by angiotensin II-induced hypertension. Circ Res . 2010, 107(2):263-70.	220
10. Guzik TJ , Chen W, Gongora M, Guzik B, Lob H, Mangalat D, Hoch N , Dikalov S, Rudzinski P, Kapelak B, Sadowski J., Harrison DG: The calcium-dependent Nox5 NADPH oxidase is an important source of reactive oxygen species in human coronary artery disease. J Am Coll Cardiol , 2008: 52(22): 1803.	190

Other SELECTED major, (lead) papers (selected from total of 290):

11. **Guzik TJ.**, Ramasundarahettige C., Pogossova N., Lopez-Jaramillo P., Dyal L., Berkowitz SD, Muehlhofer E., Bhatt DL., Fox KAA, Yusuf S, Eikelboom JWE: Rivaroxaban plus Aspirin in Obese and Overweight Patients with Vascular Disease in the COMPASS Trial. **J Am Coll Cardiol.**, 2021 77(5):511-525.
12. Eales JM, Jiang X, Xu X, Saluja S, Akbarov A, Cano-Gamez E, McNulty MT, Finan C, Guo H, Wystrychowski W, Szulinska M, Thomas H, Pramanik S, Chopade S, Prestes P, Wise I, Evangelou E, Salehi M, Shakanti Y, Ekholm M, Denniff M, Nazgiewicz A, Eichinger F, Godfrey B, Antczak A, Glyda M, KroÅAI R, Eyre S, Brown J, Berzuini C, Bowes J, Caulfield M, Zukowska-Szczechowska E, Zywiec J, Bogdanski P, Kretzler M, Woolf A, Talavera D, Keavney B, Maffia P, **Guzik TJ.**, O'Keefe R, Trynka G, Samani N, Hingorani A, Sampson AG, Morris AP, Charchar FJ, Tomaszewski M: Uncovering genetic mechanisms of hypertension through multi-omic analysis of the kidney. **Nature Genetics**, 2021, 53(5):630-637.
13. Siedlinski M, Jozefczuk E, Xu X, Teumer A, Evangelou E, Schnabel RB, Welsh P, Maffia P, Erdmann J, Tomaszewski M, Caulfield MJ, Sattar N, Holmes MV, **Guzik TJ.**: White Blood Cells and Blood Pressure: A Mendelian Randomization Study. **Circulation**. 2020; 21;141(16):1307-1317.
14. Nosalski R, Siedlinski M, Denby L, McGinnigle E, Nowak M, Nguyen Dinh Cat A, Medina-Ruiz L, Cantini M, Skiba D, Wilk G, Osmenda G, Rodor J, Salmeron-Sanchez M, Graham G, Maffia P, Graham D, Baker AH, **Guzik TJ.**: T Cell-Derived miRNA-214 Mediates Perivascular Fibrosis in Hypertension. **Circ Res**. 2020 ;126(8):988-1003.
15. Czesnikiewicz-Guzik M, Osmenda G, Siedlinski M, Nosalski R, Pelka P, Nowakowski D, Wilk G, Mikolajczyk TP, Schramm-Luc A, Furtak A, Matusik P, Koziol J, Drozd M, Munoz-Aguilera E, Tomaszewski M, Evangelou E, Caulfield M, Grodzicki T, D'Aiuto F, **Guzik TJ.**: Causal association between periodontitis and hypertension: evidence from Mendelian randomization and a randomized controlled trial of non-surgical periodontal therapy. **Eur Heart J**. 2019 40(42):3459-3470
16. Jiang X, Eales JM, Scannali D, Nazgiewicz A, Prestes P, Maier M, Denniff M, Xu X, Saluja S, Cano-Gamez E, Wystrychowski W, Szulinska M, Antczak A, Byars S, Skrypnik D, Glyda M, KroÅAI R, Zywiec J, Zukowska-Szczechowska E, Burrell LM, Woolf AS, Greenstein A, Bogdanski P, Keavney B, Morris AP, Heagerty A, Williams B, Harrap SB, Trynka G, Samani NJ, **Guzik TJ.**, Charchar FJ, Tomaszewski M.: Hypertension and renin-angiotensin system blockers are not associated with expression of angiotensin-converting enzyme 2 (ACE2) in the kidney. **Eur Heart J**. 2020 41(48):4580-4588.
17. Figtree GA, Broadfoot K, Casadei B, Califf R, Crea F, Drummond GR, Freedman JE, Guzik TJ, Harrison D, Hausenloy DJ, Hill JA, Januzzi JL, Kingwell BA, Lam CSP, MacRae CA, Misselwitz F, Miura T, Ritchie RH, Tomaszewski M, Wu JC, Xiao J, Zannad F.: A Call to Action for New Global Approaches to Cardiovascular Disease Drug Solutions. **Circulation**. 2021 Jul 13;144(2):159-169.
18. Drummond GR, Vinh A., **Guzik TJ.**, Sobey C: Immune mechanisms of hypertension. **Nature Rev Immunol**, 2019, 19(8):517-532.

19. Sagan A, Mikolajczyk TP, Mrowiecki W, MacRitchie N, Daly K, Meldrum A, Migliarino S, Delles C, Urbanski K, Filip G, Kapelak B, Maffia P, Touyz R, **Guzik TJ**: T Cells Are Dominant Population in Human Abdominal Aortic Aneurysms and Their Infiltration in the Perivascular Tissue Correlates With Disease Severity. *Front Immunol*. 2019 Sep 4;10:1979.
20. Muñoz Aguilera E, Suvan J, Buti J, Czesnikiewicz-Guzik M, Barbosa Ribeiro A, Orlandi M, **Guzik TJ**, Hingorani AD, Nart J, D'Aiuto F.: Periodontitis is associated with hypertension: a systematic review and meta-analysis. *Cardiovasc Res*. 2019 Sep 24. pii: cvz201.
21. Maffia P., **Guzik T.**: When, where and how to target vascular inflammation in the post-CANTOS era? *Eur Heart J*, 2019, 40(30):2492-2494.
22. Mikolajczyk TP, Nosalski R, Skiba DS, Koziol J, Mazur M, Justo-Junior AS, Kowalczyk P, Kusmierczyk Z, Schramm-Luc A, Luc K, Maffia P, Graham D, Kiss AK, Naruszewicz M, **Guzik TJ**: 1,2,3,4,6 penta-O-galloyl- β -D-glucose modulates perivascular inflammation and prevents vascular dysfunction in angiotensin II-induced hypertension. *Br J Pharmacol*. 2019 Jan 18. doi: 10.1111/bph.14583.
23. Itani HA, McMaster W, Saleh M, Nazarewicz R, Mikolajczyk TP, Kaszuba A, Konior A, Prejbisz A, Januszewicz A, Norlander A, Chen W, Bonami R, Marshall AF, Poffenberger G, Weyand C, Madhur M, Moore D, Harrison DG, **Guzik TJ**: Activation of human T cells in hypertension: Studies of humanized mice and hypertensive humans. *Hypertension*, 2016, Jul;68(1):123-32.
24. Mikolajczyk TP*, Nosalski R*, Szczepaniak P, Budzyn K, Osmenda G, Skiba D, Sagan A, Wu J, Vinh A, Marvar PJ, Guzik B, Podolec J, Drummond G, Lob HE, Harrison D, **Guzik TJ**: Role of chemokine RANTES in the regulation of perivascular inflammation, T cell accumulation and vascular dysfunction in hypertension. *FASEB J*, 2016, 30:1987-1999
25. Sagan A., Mrowiecki W., Mikolajczyk T., Urbanski K., Siedlinski M., Korbut R., **Guzik TJ**: Local inflammation is associated with aortic thrombus formation in abdominal aortic aneurysms. Relationship to clinical risk factors. *Thromb Hemost*, 2012, 108(5):812-23.-
26. **Guzik T.**, Korbut R., Adamek-Guzik T: Nitric oxide and superoxide in inflammation and immune regulation. *J Physiol Pharmacol*, 2003, 54(4):469-87. – **cytwane 781 times**
27. Guzik B, Sagan A, Ludew D, Mrowiecki W, Chwała M, Bujak-Gizycka B, Filip G, Grudzien G, Kapelak B, Zmudka K, Sadowski J, Korbut R, **Guzik TJ**: Mechanisms of oxidative stress in human aortic aneurysms - Association with clinical risk factors for atherosclerosis and disease severity. *Int J Cardiol*. 2013, 168(3):2389-96.
28. Eikelboom JW, Connolly S, Bosch J, Dagenais G, Hart RG, Shestakovska O, R Diaz, M Alings, EM Lonn, S Anand, P Widimsky, M Hori, A Avezum, LS Piegas, KRH Branch, J Probstfield, DL Bhatt, J Zhu, Y Liang, AP Maggioni, P Lopez-Jaramillo, M O'Donnell, A Kakkar, KAA Fox, AN Parkhomenko, G Ertl, Stefan Störk, M Keltai, L Ryden, N Pogossova, AL Dans, F Lanus, PJ Commerford, C Torp, **Guzik TJ**, PB Verhamme, D Vinereanu, JH Kim, AM Tonkin, BS Lewis, C Felix, K Yusoff MBBS, PG Steg, KP Metsarinne, N Cook, F Misselwitz, E Chen, D Leong, S Yusuf. Rivaroxaban with and without aspirin in stable coronary or peripheral artery disease. *N Engl J Med*, 2017 Nov Oct 5;377(14):1319-1330. doi: 10.1056/NEJMoa1709118.
29. Moayyedi P, Eikelboom JW, Bosch J, Connolly SJ, Dyal L, Shestakovska O, Leong D, Anand SS, Störk S, Branch KRH, Bhatt DL, Verhamme PB, O'Donnell M, Maggioni AP, Lonn EM, Piegas LS, Ertl G, Keltai M, Bruns NC, Muehlhofer E, Dagenais GR, Kim JH, Hori M, Steg PG, Hart RG, Diaz R,

- Alings M, Widimsky P, Avezum A, Probstfield J, Zhu J, Liang Y, Lopez-Jaramillo P, Kakkar AK, Parkhomenko AN, Ryden L, Pogossova N, Dans AL, Lanan F, Commerford PJ, Torp-Pedersen C, **Guzik TJ**, Vinereanu D, Tonkin AM, Lewis BS, Felix C, Yusoff K, Metsarinne KP, Fox KAA, Yusuf S; COMPASS Investigators.: Safety of Proton Pump Inhibitors Based on a Large, Multi-Year, Randomized Trial of Patients Receiving Rivaroxaban or Aspirin. **Gastroenterology**. 2019 Sep;157(3):682-691
30. **Guzik TJ**, Skiba DS, Touyz RM, Harrison DG: The role of infiltrating immune cells in dysfunctional adipose tissue. **Cardiovasc Res**. 2017 Jul 1;113(9):1009-1023
31. Siedlinski M., Nosalski R., Szczepaniak P, Ludwig-Gałęzowska A, Mikołajczyk T, Filip M, Osmenda G., Wilk G, Nowak M, Wołkow P, **Guzik TJ**: Vascular transcriptome profiling identifies Sphingosine kinase 1 as a modulator of angiotensin II-induced vascular dysfunction. **Sci Rep**, 2017; 9;7:44131.
32. Urbanski K., Ludew D, Filip G, Filip M, Sagan A, Szczepaniak P, Grudzien G, Sadowski J, Jasiewicz-Honkisz B, Sliwa T, Kapelak B, McGinnigle E, Mikołajczyk T, **Guzik TJ**: CD14+CD16++ “nonclassical” monocytes are associated with endothelial dysfunction in patients with coronary artery disease. **Thrombosis and Hemostasis**. 2017, 117(5):971-980.
33. Skiba DS, Nosalski R, Mikołajczyk TP, Siedlinski M, Rios FJ, Montezano AC, Jawien J, Olszanecki R, Korbut R, Czesnikiewicz-Guzik M, Touyz RM, **Guzik TJ**: Antiatherosclerotic effect of Ang- (1-7) non-peptide mimetic (AVE 0991) is mediated by inhibition of perivascular and plaque inflammation in early atherosclerosis. **Br J Pharmacol**, 2016, Dec 9. doi: 10.1111/bph.13685.
34. Harrison DG, **Guzik TJ**.: Macrophages come to mind as keys to cognitive decline. **J Clin Invest**. 2016;126(12):4393-4395
35. Kirabo A, Fontana V, de Faria AP, Loperena R, Galindo CL, Wu J, Bikineyeva AT, Dikalov S, Xiao L, Chen W, Saleh MA, Trott DW, Itani HA, Vinh A, Amarnath V, Amarnath K, **Guzik TJ**, Bernstein KE, Shen XZ, Shyr Y, Chen SC, Merneugh RL, Laffer CL, Eljovich F, Davies SS, Moreno H, Madhur MS, Roberts J 2nd, Harrison DG.: DC isoketal-modified proteins activate T cells and promote hypertension. **J Clin Invest**. 2014 Oct 1;124(10):4642-56. (IF-14.449)