

Dr. Melinda Boussoussou

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Curriculum vitae

Educations:

2010-2016: Semmelweis University Faculty of Medicine

2015:

- University College London
- Queen Mary University of London

2014:

- Université Bordeaux Segalen Faculté de Médecine

Scientific activities:

- Semmelweis University Heart and Vascular Center, Cardiovascular Imaging Research Group (2019-)
Supervisor: Dr. Pál Maurovich-Horvat
Research topics:
 - Left atrial wall thickness and pulmonary anatomy measurements with coronary CT angiography in light of the procedural success of pulmonary vein isolation in patients with atrial fibrillation.
 - Pericoronary adipose tissue analysis in the right coronary artery with coronary CT angiography.
 - Evaluation of atherosclerotic plaques with non-invasive imaging modalities.
- Semmelweis University Heart and Vascular Center, Department of Vascular Surgery (2013-2019)
Supervisor: Prof. Dr. Attila Nemes, Prof. Dr. László Entz
Research topic:
 - The effect of atmospheric parameters on acute cardiovascular diseases.
- Semmelweis University Department of Human Morphology and Developmental Biology (2012-2013)
Supervisor: Dr. Ágnes Nemeskéri
Research topics:
 - Evaluation of coronary anastomosis
 - The occurrence of coronary atherosclerosis in hearts with coronary anomalies.

Prizes:

„Best article of the year” prize: „Risk factors of cardiogenic thromboembolism: the influence of atmospheric parameters on the „cardiovascular epidemic”, atrial fibrillation.”. *Érbetegségek*, 2015. (1). 13- 17. – The Society of the Hungarian Angiology and Vascular surgery, 2015

Grants awarded:

- New National Excellence Program (2021-2022)
- Semmelweis 250+ Excellence PhD grant (2020-2021, 2021-2022)
- For the Young Talents of the Nation grant (2020-2021)
- Erasmus grants (2014, 2015)
 - UCL-Great Ormond Street Hospital, Respiratory Medicine and Translational Care Unit, London
 - Homerton University Hospital, Department of Obstetrics and Gynaecology, London
 - Université de Bordeaux Segalen Faculté de Médecine

Publications:

- Maurovich-Horvat P, Bosserd M, Kofoed KF et al. (2022) CT or invasive coronary angiography in stable chestpain *New England Journal of Medicine*
- Boussoussou M, Szilveszter B, Vattay B et al. (2022) The effect of left atrial wall thickness and pulmonary vein sizes on the acute procedural success of atrial fibrillation ablation. *International Journal of Cardiovascular Imaging*
- Simon J, Herczeg Sz, Borzsák S et al. (2022) Extracardiac findings on cardiac computed tomography in patients undergoing atrial fibrillation catheter ablation *Imaging*
- Szilveszter B, Vattay B, Boussoussou M et al. (2021) CAD-RADS may underestimate coronary plaque progression as detected by several CT angiography. *European Heart Journal – Cardiovascular Imaging*
- Boussoussou M, Vattay B, Szilveszter B et al. (2021) Functional assessment of coronary plaques using CT based hemodynamic simulations: current status, technical principles and clinical value. *Imaging*
- Vattay B, Boussoussou M, Borzsák S et al. (2021) Myocardial Perfusion Imaging using Computed Tomography: Current Status, Clinical Value and Prognostic Implications. *Imaging*
- Vecsey-Nagy M, Jermendy Á, Suhai F et al. (2021) Model-based adaptive filter for a dedicated cardiovascular CT scanner: Assessment of image noise, sharpness and quality. *European Journal of Radiology*
- Vecsey-Nagy M, Szilveszter B, Kolossváry M et al. (2021) Association between affective temperaments and severe coronary artery disease. *Journal of Affective Disorders*
- Vecsey-Nagy M, Szilveszter B, Kolossváry M et al. (2021) The association between accelerated vascular aging and cyclothymic affective temperament in women. *Journal of psychosomatic research*
- Papp S, Bárczi Gy, Karády J et al. (2021) Coronary plaque burden of the left anterior descending artery in patients with or without myocardial bridge: A case-control study based on coronary CT-angiography. *International Journal of Cardiology*
- Simon J, Száraz L, Szilveszter B et al. (2020) Calcium scoring: a personalized probability assessment predicts the need for additional or alternative testing to coronary CT angiography. *European Radiology*
- Boussoussou N, Boussoussou M, Merész G et. al (2019) Complex effects of atmospheric parameters on acute cardiovascular diseases and major cardiovascular risk factors: data from the CardiometeorologySM study. *Scientific Reports*.
- Boussoussou N, Boussoussou M. (2019) Cardiometeorológia, *Semmelweis publisher* (under publication) - book
- Boussoussou N, Boussoussou M. (2018) Climate Change is one of the biggest threats to global health. It is time for new horizons in preventive medicine - review of the latest knowledge on the health effects of climate change on acute cardiovascular diseases. *Advances in Medicine and Biology*. Volume 130. – book chapter

- Boussoussou N, Boussoussou M, Entz L et al. (2017) Historical overview of medical meteorology – a new horizon in the field of preventive medicine. *Orvosi Hetilap*
- Boussoussou N, Boussoussou M, Entz L et al. (2014) Evaluation of acute cardiovascular diseases in light of different atmospheric parameters. *Orvosi Hetilap*
- Boussoussou M, Boussoussou N, Entz L et al. (2015) „Risk factors of cardiogenic thromboembolism: the influence of atmospheric parameters on the „cardiovascular epidemic”, atrial fibrillation.” *Érbetegségek*

Presentations:

- Hungarian Society of Cardiology (2021. 10. 13-16.) Boussoussou M et al. „Qualitative and quantitative plaque analysis with coronary CT angiography,, - first author, lecture
- Hungarian Society of Cardiology (2021. 10. 13-16.) Vattay et al. „Perfusion CT protocol and its clinical importance” – co-author, lecture
- European Society of Cardiology Annual Scientific Meeting (2021. 08. 27-31.) Boussoussou et al. „The Role Of Left Atrial Wall Thickness And Pulmonary Vein Anatomy In Success Of Pulmonary Vein Isolation Using The Close Protocol.” first author, e-poster
- European Society of Cardiology Annual Scientific Meeting (2021. 08. 27-31.) Vattay et al. "Impaired Left Atrial Strain At Discharge After Transcatheter Aortic Valve Replacement (TAVI) Is Associated With Reverse Remodelling Of The Left Ventricle But Not The Left Atrium" co-author, e-poster
- The Society of Cardiovascular Computed Tomography Annual Scientific Meeting (2021. 07. 17-18) Boussoussou M et al. "The Role Of Left Atrial Wall Thickness And Pulmonary Vein Anatomy In Success Of Pulmonary Vein Isolation Using The Close Protocol.” first author, e-poster
- The Society of Cardiovascular Computed Tomography Annual Scientific Meeting (2021. 07. 17-18) Vattay et al. "Impaired Left Atrial Strain At Discharge After Transcatheter Aortic Valve Replacement (TAVI) Is Associated With Reverse Remodelling Of The Left Ventricle But Not The Left Atrium" co-author, e-poster
- Hungarian Society of Cardiology (2020. 11. 11-14.) Boussoussou M et al. "Non-invasive CT based fractional flow reserve simulation in patient with stable angina.”- first author, lecture
- Hungarian Society of Cardiology (2020. 11. 11-14.) Vattay et al. "Left ventricle myocardial strain analysis based on coronary CT angiography.” – co-author, lecture
- PhD Scientific Days Semmelweis University Boussoussou et al. "Predictors and characteristics of coronary artery plaque progression using serial CT imaging." first author, lecture
- PhD Scientific Days Semmelweis University Vattay et al. "The evaluation of strain parameters using functional CT angiography" co-author, lecture
- The Society of Cardiovascular Computed Tomography Annual Scientific Meeting (2020. 07. 17-18) Boussoussou M et al. "Heritability Of Left Ventricular Morphology: Results From A Classical Twin Study” - first author, lecture
- The Society of Cardiovascular Computed Tomography Annual Scientific Meeting (2020. 07. 17-18) Vattay et al. "The Impact of iterative reconstruction algorithms on dynamic computed tomography myocardial perfusion parameters" co-author, lecture
- Semmelweis Symposium (Budapest, 2019. 11. 5-7) "The effects of atmospheric parameters on haemostatic factors: a case control study" – first author, poster presentation
- Semmelweis Symposium (Budapest, 2019. 11. 5-7) „Atmospheric front patterns: direct environmental stressors on cardiovascular morbidity” – co-author, poster presentation
- World Congress of Cardiology 2019 (Paris, 2019. 08. 31.-09. 04.) „Associations between atmospheric parameters and haemostatic factors: a case control study.” - first author, poster presentation
- World Congress of Cardiology 2019 (Paris, 2019. 08. 31.-09. 04.) „Atmospheric front patterns and acute cardiovascular diseases, a new perspective in the cardiovascular threat of global climate change.”- co-author, poster presentation
- 12th International Meeting of the French Society of Hypertension conference (Paris, 2018. 12. 13-15.)

“Association between atmospheric parameters and acute cardiovascular diseases' demographic characteristic“-co-author, poster presentation

- 11th International Meeting of the French Society of Hypertension conference (Paris, 2017. 12.14-15.)
“The effects of atmospheric parameters on the elderly population with cardiovascular diseases-vulnerability to meteorology” - co-author, poster presentation
- 10th International Meeting of the French Society of Hypertension conference (Paris, 2016. 12. 14-15.)
“Major cardiovascular risk factors and atmospheric parameters: Evidence for an increased meteorosensitivity risk. A dangerous liaison?” - co-author, poster presentation
- 9th International Meeting of the French Society of Hypertension conference (Paris, 2015. 12. 17-18.):
“Hypertension induced acute cardiovascular risk and atmospheric parameters: 2670 population based meteorosensitivity study” - co-author, poster presentation
- European Society of Cardiology -Eurothrombosis Summit 2014. conference (Paris, 2014. 09. 28-30.):
“Association between acute coronary syndromes and different meteorological parameters: 1330 patients based, retrospective study”- co-author, poster presentation

Research interest:

As a PhD student, I am doing my research work at the Semmelweis University Heart and Vascular Center, Cardiovascular Imaging Research Group. Nowadays, non-invasive cardiovascular imaging plays an important role in the diagnoses and treatment plans of cardiovascular diseases. My main research interest within this field contains qualitative and quantitative coronary plaque analysis, pericoronary adipose tissue analysis and its correlation to cardiovascular diseases. Moreover, left atrial wall thickness and pulmonary anatomy measurements with coronary CT angiography in light of the procedural success of pulmonary vein isolation in patients with atrial fibrillation. My research work could help developing new diagnostic and therapeutic pathways in patient with cardiovascular diseases which could lead to decreased morbidity and mortality rate.