

Veröffentlichungen und Publikationen

Prof. Dr. med. Stefan Baumann

1. Alonso A, Kraus J, Ebert A, Nikolayenko V, Kruska M, Sandikci V, Lesch H, Duerschmied D, Platten M, **Baumann S**, Szabo K, Akin I, Fastner C. Left atrial area index provides the best prediction of atrial fibrillation in ischemic stroke patients: results from the LAETITIA observational study Front Neurol. 2023; 14: 1237550. Published online 2023 Sep 27
2. Soschynski M, Hagen F, **Baumann S**, Hagar MT, Weiss J, Krauss T, Schlett CL, von zur Mühlen C, Bamberg F, Nikolaou K, Greulich S, Froelich MF, Riffel P, Overhoff D, Papavassiliu T, Stefan O, Schoenberg SO, Faby S, Ulzheimer S, Ayx I, Krumm P. High Temporal Resolution Dual-Source Photon-Counting CT for Coronary Artery Disease: Initial Multicenter Clinical Experience. J Clin Med. 2022 Oct; 11(20): 6003. Published online 2022 Oct 11
3. Fastner C, Szabo K, Samartz M, Kruska M, Akin I, Platten M, **Baumann S**, Alonso A. Treatment standards for direct oral anticoagulants in patients with acute ischemic stroke and non-valvular atrial fibrillation: A survey among German stroke units. PLoS One. 2022; 17(2): e0264122. Published online 2022 Feb 17.
4. Lesch H, Kruska M, Fastner C, **Baumann S**, Britsch S, Alonso A, Szabo K. From the brain to the heart and back again. DGNeurologie volume 5, pages 268–274 (2022)
5. **Baumann S**, Overhoff D, Tesche C, Korosoglou G, Kelle S, Nassar M, Buss SJ, Andre F, Renker M, Schoepf UJ, Akin I, Waldeck S, Schoenberg SO, Lossnitzer D. Morphologische und funktionelle Diagnostik der koronaren Herzkrankheit mittels Computertomographie. Herz 2022 Mar 4 (accepted)
6. Kruska M, Kolb A, Fastner C, Mildenberger I, Hetjens S, Kittel M, Bail K, Behnes M, Akin I, Borggrefe M, Szabo K, **Baumann S**. Coronary Artery Disease in Patients Presenting With Acute Ischemic Stroke or Transient Ischemic Attack and Elevated Troponin Levels. Front Neurol. 2022 Jan 13;12:781553.
7. Fastner C, Szabo K, Samartz M, Kruska M, Akin I, Platten M, **Baumann S**, Alonso A. Treatment Standards for Direct Oral Anticoagulants in Patients with Acute Ischemic Stroke and Non-valvular Atrial Fibrillation: A Survey among German Stroke Units. PLOS One 2022 Feb 17 (accepted)
8. Overhoff D, Ansari U, Hohneck A, Tülümen E, Rudic B, Kuschyk J, Lossnitzer D, **Baumann S**, Froelich MF, Waldeck S, Akin I, Borggrefe M, Schoenberg SO, Papavassiliu T. Prediction of cardiac events with non-contrast magnetic resonance feature tracking in patients with ischaemic cardiomyopathy. ESC Heart Fail. 2021 Nov 24 (accepted=
9. Ansari U, Janssen S, **Baumann S**, Borggrefe M, Waldeck S, Schönberg S, Papavassiliu T, Overhoff D. Sparse 3D contrast-enhanced whole-heart imaging for coronary artery evaluation. Herz. 2022 Jan 10 (accepted)
10. Shchetynska-Marinova T, Kranert M, **Baumann S**, Liebe V, Grafen A, Gerhards S, Rosenkaimer S, Akin I, Borggrefe M, Hohneck AL. Recurrence of atrial fibrillation after pulmonary vein isolation in dependence of arterial stiffness. Neth Heart J. 2021 Nov 24.
11. Tesche C, Baquet M, Bauer MJ, Straube F, Hartl S, Leonard T, Jochheim D, Fink D, Brandt V, **Baumann S**, Schoepf UJ, Massberg S, Hoffmann E, Ebersberger U. Prognostic Utility of Coronary Computed

Tomography Angiography-derived Plaque Information on Long-term Outcome in Patients With and Without Diabetes Mellitus. J Thorac Imaging. 2021 Oct 28.

12. Görich HM, Buss SJ, Emami M, Seitz S, Lossnitzer D, Fortner P, **Baumann S**, Brado M, Gückel F, Sokiranski R, Sommer A, Görich J, Andre F. Short-Time Changes in Coronary Artery Plaques Assessed by Follow-Up Coronary CT Angiography-Characteristics and Impact on Patient Management. Front Cardiovasc Med. 2021 Aug 9;8:691665
13. Shchetynska-Marinova T, Kranert M, **Baumann S**, Liebe V, Grafen A, Gerhards S, Rosenkaimer S, Akin I, Borggrefe M, Hohneck AL. Recurrence of atrial fibrillation after pulmonary vein isolation in dependence of arterial stiffness. Neth Heart J. 2021 Nov 24.
14. Renker M, **Baumann S**, Hamm CW, Tesche C, Kim WK, Savage RH, Coenen A, Nieman K, De Geer J, Persson A, Kruk M, Kepka C, Yang DH, Schoepf UJ. Influence of coronary stenosis location on diagnostic performance of machine learning-based fractional flow reserve from CT angiography. J Cardiovasc Comput Tomogr. 2021 Jun 4:S1934-5925(21)00082-4
15. Görich HM, Buss SJ, Emami M, Seitz S, Lossnitzer D, Fortner P, **Baumann S**, Brado M, Gückel F, Sokiranski R, Sommer A, Görich J, Andre F. Short-Time Changes in Coronary Artery Plaques Assessed by Follow-Up Coronary CT Angiography-Characteristics and Impact on Patient Management. Front Cardiovasc Med. 2021 Aug 9;8:691665.
16. Seitz A, **Baumann S**, Sechtem U, Ong P. Optimal prognostication of patients with coronary stenoses in the pre- and post-PCI setting: Comments on TARGET FFR and DEFINE-FLOW trials presented at TCT Connect 2020. Eur Cardiol 2021 Feb 8.
17. Grassl N, **Baumann S**, Kruska M, Fatar M, Akin I, Platten M, Borggrefe M, Alonso A, Szabo K, Fastner C. Acute ischemic stroke and elevated troponin: Diagnostic work-up and therapeutic consequences. Dtsch Med Wochenschr 2021 Apr;146(8):534-541
18. **Baumann S**, Kaeder F, Schoepf UJ, Golden JW, Kryeziu P, Tesche C, Renker M, Jannsen S, Weiss C, Hetjens S, Schoenberg SO, Borggrefe M, Akin I, Lossnitzer D, Overhoff D Prognostic Value of Coronary Computed Tomography Angiography-derived Morphologic and Quantitative Plaque Markers Using Semiautomated Plaque Software. J Thorac Imaging. 2021 Mar 1;36(2):108-115
19. Kim SH, **Baumann S**, Behnes M, Borggrefe M, Akin I. Patient Selection for Protected Percutaneous Coronary Intervention: Who Benefits the Most? Cardiol Clin. 2020 Nov;38(4):507-516
20. Kruska M, Fastner C, Scheitz JF, Kolb A, Rutsch M, Papavassiliu T, Borggrefe M, Alonso A, Akin I, Szabo K, **Baumann S**. Troponin elevation in acute ischemic stroke-unspecific or acute myocardial infarction? : Diagnostics and clinical implications. Herz. 2020 Jul 6
21. **Baumann S**, Lossnitzer D, Akin I. Ischämietests: Vieldiskutierte Technik. Dtsch Arztebl 2020; 117(9): A-456 / B-395 / C-379.
22. Becher T, Müller J, Akin I, **Baumann S**, Stach K, Borggrefe M, Pötzsch B, Loßnitzer D. Characterization of circulating thrombin in patients with septic shock: a prospective observational study. J Thromb Thrombolysis. 2020 Jul;50(1):90-97

23. Takx RAP, Wichmann JL, Otani K, De Cecco CN, Tesche C, **Baumann S**, Mastrodicasa D, Litwin SE, Bayer RR 2nd, Nance JW, Suranyi P, Jacobs BE, Duguay TM, Vogl TJ, Carr CM, Schoepf UJ. In-Hospital Cost Comparison of Triple-Rule-Out Computed Tomography Angiography Versus Standard of Care in Patients With Acute Chest Pain. *J Thorac Imaging*. 2020 May;35(3):198-203
24. Guedeney P, Thiele H, Kerneis M, Barthélémy O, **Baumann S**, Sandri M, de Waha-Thiele S, Fuernau G, Rouanet S, Piek JJ, Landmesser U, Hauguel-Moreau M, Zeitouni M, Silvain J, Lattuca B, Windecker S, Collet JP, Desch S, Zeymer U, Montalescot G, Akin I; Radial versus femoral artery access for percutaneous coronary artery intervention in patients with acute myocardial infarction and multivessel disease complicated by cardiogenic shock: Subanalysis from the CULPRIT-SHOCK trial. *CULPRIT-SHOCK Investigators*. *Am Heart J*. 2020 Jul;225:60-68
25. Huseynov A, **Baumann S**, Nef H, Riemer T, Schneider S, Pfannenbecker T, Achenbach S, Mehilli J, Münzell T, Gori T, Wöhrle J, Zahn R, Kastner J, Schmermund A, Richardt G, Hamm CW, Akin I. Comparison between treatment of "established" versus complex "off-label" coronary lesions with Absorb® bioresorbable scaffold implantation: results from the GABI-R® registry. *Clin Res Cardiol*. 2020 Mar;109(3):374-384.
26. Kruska M, Papavassiliu T, Borggrefe M, **Baumann S**, Hohneck A, Rudic B. Risk stratification in families with history of idiopathic ventricular fibrillation. *HeartRhythm Case Rep*. 2020 Mar 29;6(7):386-389
27. **Baumann S**, Hirt M, Rott C, Özdemir GH, Tesche C, Becher T, Weiss C, Hetjens S, Akin I, Schoenberg SO, Borggrefe M, Janssen S, Overhoff D, Lossnitzer D. Comparison of Machine Learning Computed Tomography-Based Fractional Flow Reserve and Coronary CT Angiography-Derived Plaque Characteristics with Invasive Resting Full-Cycle Ratio. *J Clin Med*. 2020 Mar 6;9(3):714
28. Lossnitzer D, Chandra L, Rutsch M, Becher T, Overhoff D, Janssen S, Weiss C, Borggrefe M, Akin I, Pfleger S, **Baumann S**. Additional Value of Machine-Learning Computed Tomographic Angiography-Based Fractional Flow Reserve Compared to Standard Computed Tomographic Angiography. *J Clin Med*. 2020 Mar 3;9(3):676.
29. **Baumann S**, Bojara W, Post H, Rudolph T, Schäufele T, Ong P, Lehmann R, von Zur Mühlen C. Coronary physiology in the catheter laboratory. *Herz*. 2020 Jan 14.
30. **Baumann S**, Özdemir GH, Tesche C, Schoepf UJ, Golden JW, Becher T, Hirt M, Weiss C, Renker M, Akin I, Schoenberg SO, Borggrefe M, Haubenreisser H, Lossnitzer D, Overhoff D. Coronary CT angiography derived plaque markers correlated with invasive instantaneous flow reserve for detecting hemodynamically significant coronary stenosis. *Eur J Radiol*. 2020 Jan;122:108744.
31. **Baumann S**, Hirt M, Schoepf UJ, Rutsch M, Tesche C, Renker M, Golden JW, Buss SJ, Becher T, Bojara W, Weiss C, Papavassiliu T, Akin I, Borggrefe M, Schoenberg SO, Haubenreisser H, Overhoff D, Lossnitzer D. Correlation of machine learning computed tomography-based fractional flow reserve with instantaneous wave free ratio to detect hemodynamically significant coronary stenosis. *Clin Res Cardiol*. 2020 Jun;109(6):735-745.
32. Huseynov A, Behnes M, Ansari U, **Baumann S**, Lossnitzer D, El-Battrawy I, Fastner C, Borggrefe M, Akin I. Optimal duration for dual antiplatelet therapy with COMBO dual therapy stent. *J Geriatr Cardiol*. 2019 Nov;16(11):840-843.

33. Eisele P, **Baumann S**, Noor L, El-Battrawy I, Ebert A, Gass A, Akin I, Kittel M, Platten M, Szabo K. Interaction between the heart and the brain in transient global amnesia. *J Neurol*. 2019 Dec;266(12):3048-3057
34. **Baumann S**, Renker M, Schoepf UJ, De Cecco CN, Coenen A, De Geer J, Kruk M, Kim YH, Albrecht MH, Duguay TM, Jacobs BE, Bayer RR, Litwin SE, Weiss C, Akin I, Borggrefe M, Yang DH, Kepka C, Persson A, Nieman K, Tesche C. Gender differences in the diagnostic performance of machine learning coronary CT angiography-derived fractional flow reserve -results from the MACHINE registry. *Eur J Radiol*. 2019 Oct;119:108657.
35. Tesche C, Otani K, De Cecco CN, Coenen A, De Geer J, Kruk M, Kim YH, Albrecht M, **Baumann S**, Renker M, Bayer RR, Duguay T, Litwin S, Varga-Szemes A, Schienberg D, Yang DH, Kepka C, Persson, Nieman K, Schoepf UJ. Influence of Coronary Artery Calcium on the Diagnostic Performance of Machine Learning Coronary CT Angiography-Derived Fractional Flow Reserve - Results from the MACHINE Registry. *ACC Cardiovasc Imaging*. 2020 Mar;13(3):760-770.
36. Wichmann JL, Takx RAP, Nunez JH, Vliegenthart R, Otani K, Litwin SE, Morris PB, De Cecco CN, Rosenberg RD, Bayer RR 2nd, **Baumann S**, Renker M, Vogl TJ, Wenger NK, Schoepf UJ. Relationship Between Pregnancy Complications and Subsequent Coronary Artery Disease Assessed by Coronary Computed Tomographic Angiography in Black Women. *Circ Cardiovasc Imaging*. 2019 Jul;12(7):e008754.
37. **Baumann S**, Grau A, Senge J, Schneider S, Alonso A, Katus HA, Thomas D, Waldecker B, Haass M, Zahn R, Zeymer U, Akin I, Kruska M, Fischer C, Borggrefe M. ARENA-Project atrial fibrillation in the Rhein-Neckar region. *Herz*. 2020 Nov;45(7):689-695
38. **Baumann S**, Mueller KSE, Hetjens S, Eder F, Schaefer AC, Becher T, Borggrefe M, Akin I, Loßnitzer D. One-year clinical outcome of angiography, fractional flow reserve and instantaneous wave-free ratio guided percutaneous coronary intervention: A PRISMA-compliant meta-analysis. *Exp Ther Med*. 2019 Mar;17(3):1939-1951
39. Kaeder F, Rutsch M, Skarga E, Loßnitzer D, Akin I, **Baumann S**. Diagnostic performance of cCTA derived stenosis predictors to detect hemodynamic significant coronary stenosis. *Int J Cardiol*. 2019 Jan 1;274:62.
40. **Baumann S**, Chandra L, Skarga E, Renker M, Borggrefe M, Akin I, Lossnitzer D. Instantaneous wave-free ratio (iFR[®]) to determine hemodynamically significant coronary stenosis: A comprehensive review. *World J Cardiol*. 2018 Dec 26;10(12):267-277
41. Becher T, Eder F, **Baumann S**, Loßnitzer D, Pollmann B, Behnes M, Borggrefe M, Akin I. Unprotected vs. protected high-risk percutaneous coronary intervention with the Impella[®] 2.5 in patients with multivessel disease and severely reduced left ventricular function. *Medicine* 2018 Oct;97(43):e12665.
42. **Baumann S**, Kryeziu P, Tesche C, Shuler DC, Becher T, Rutsch M, Behnes M, Stach K, Jacobs BE, Renker M, Henzler T, Haubenreisser H, Schoenberg SO, Weiss C, Borggrefe M, Schwemmer C, Schoepf UJ, Akin I, Lossnitzer D. Association of Serum Lipid Profile With Coronary Computed Tomographic Angiography-derived Morphologic and Functional Quantitative Plaque Markers. *J Thorac Imaging*. 2019 Jan;34(1):26-34
43. **Baumann S**, Lossnitzer D, Renker M, Borggrefe M, Akin I. Coronary Computed Tomography Angiography-Derived Fractional Flow Reserve Assessment: Many Roads to Reach the Same Goal. *Circ J*. 2018 Aug 24;82(9):2448.

44. Becher T, Müller J, Akin I, **Baumann S**, Bosch K, Stach K, Borggrefe M, Pötzsch B, Loßnitzer D. The evolution of activated protein C plasma levels in septic shock and its association with mortality: A prospective observational study. *J Crit Care*. 2018 Jun;2;47:41-48.
45. Röger S, Rudic B, Akin I, Shchetynska-Marinova T, Fastenrath F, Tülümen E, Liebe V, El-Battrawy I, **Baumann S**, Kuschyk J, Borggrefe M. Long-term results of combined cardiac contractility modulation and subcutaneous defibrillator therapy in patients with heart failure and reduced ejection fraction. *Clin Cardiol*. 2018 Apr 26.
46. Tesche C, De Cecco CN, **Baumann S**, Renker M, McLaurin TW, Duguay TM, Bayer RR 2nd, Steinberg DH, Grant KL, Canstein C, Schwemmer C, Schoebinger M, Itu LM, Rapaka S, Sharma P, Schoepf UJ. Coronary CT Angiography-derived Fractional Flow Reserve: Machine Learning Algorithm versus Computational Fluid Dynamics Modeling. *Radiology*. 2018 Apr 10;17129
47. Rutsch M, Renker M, Akin I, Borggrefe M, **Baumann S**. Coronary computed tomography-derived fractional flow reserve assessment - Finally ready for clinical use? *J Cardiovasc Comput Tomogr*. May-Jun 2018;12(3):e5.
48. Ansari U, El-Battrawy I, Fastner C, Behnes M, Sattler K, Huseynov A, **Baumann S**, Tülümen E, Borggrefe M, Akin I. Clinical outcomes associated with catecholamine use in patients diagnosed with Takotsubo cardiomyopathy. *BMC Cardiovasc Disord*. 2018 Mar 20;18(1):54.
49. **Baumann S**, Werner N, Ibrahim K, Westenfeld R, Al-Rashid F, Sinning JM, Westermann D, Schäfer A, Karatolios K, Bauer T, Becher T, Akin I. Indication and short-term clinical outcomes of high-risk percutaneous coronary intervention with microaxial Impella® pump: results from the German Impella® registry. *Clin Res Cardiol*. 2018 Aug;107(8):653-657.
50. Rutsch M, Akin I, Borggrefe M, Renker M, Lossnitzer D, **Baumann S**. Coronary Computed Tomography-Derived Fractional Flow Reserve Assessment-A Gatekeeper in Intermediate Stenoses. *Am J Cardiol*. 2018 Mar 15;121(6):778-779.
51. **Baumann S**, Becher T, Giannakopolous K, Jabbour C, Rutsch M, Fastner C, El-Battrawy I, Ansari U, Lossnitzer D, Behnes M, Alonso A, Kirschning T, Michels G, Stern D, Dissmann R, Kueck O, Taccone FS, Waldmann C, Bunker N, Postiglione M, Borggrefe M, Akin I. Bedside implantation of a new temporary vena cava inferior filter - Safety and efficacy results of the European ANGEL-Registry. *J Crit Care* 2017 Oct 12;44:39-44.
52. **Baumann S**, Renker M, Schoepf UJ. Coronary Computed Tomography-based Fractional Flow Reserve - A Rapidly Developing Field. *JAMA Cardiol* 2018 Jan 1;3(1):87.
53. Sattler K, Behnes M, Barth C, Wenke A, Sartorius B, El-Battrawy I, Mashayekhi K, Kuschyk J, Hoffmann U, Papavassiliu T, Fastner C, **Baumann S**, Lang S, Zhou X, Yücel G, Borggrefe M, Akin I. Occlusion of left atrial appendage affects metabolomic profile: focus on glycolysis, tricarboxylic acid and urea metabolism. *Metabolomics*. 2017;13(11):127.

54. **Baumann S**, Behnes M, Sartorius B, Becher T, El-Battrawy I, Fastner C, Ansari U, Lossnitzer D, Mashayekhi K, Henzler T, Schoenberg SO, Borggrefe M, Akin I. Cardiac computed tomography imaging Follow-Up of Iatrogenic Aorto-Coronary "Dunning" Dissections. *BMC Med Imaging*. 2017 Dec;21;17(1):64
55. **Baumann S**, Rutsch M, Becher T, Kryeziu P, Haubenreisser H, Vogler N, Schoenike CA, Borggrefe M, Schoenberg S, Akin I, Henzler T, Lossnitzer D. Clinical Impact of Rest Dual-Energy Computed Tomography Myocardial Perfusion in Patients with Coronary Artery Disease. *In Vivo*. 2017 Nov-Dec;31(6):1153-1157.
56. **Baumann S**, Schaefer AC, Hohneck A, Mueller K, Becher T, Behnes M, Borggrefe M, Akin I, Lossnitzer D. Instantaneous Wave-free Ratio (iFR[®]) in patients with coronary artery disease. *2018 Nov*;43(7):621-627
57. **Baumann S**, Rupp D, Bechter T, Behnes M, Sadick M, Borggrefe M, Akin I. Retrieval of a Fractured Angioplasty Guidewire after Percutaneous Retrograde Revascularization of Coronary Chronic Total Occlusion. *Coron Artery Dis* 2018 Jan;29(1):81-82
58. Becher T*, **Baumann S***, Eder F, Perschka S, Lossnitzer D, Fastner C, Behnes M, Doesch C, Borggrefe M, Akin I. Comparison of peri- and postprocedural complications in patients undergoing revascularization of coronary artery multivessel disease by coronary artery bypass grafting or protected-percutaneous coronary intervention with the Impella[®] 2.5 device. *Eur Heart J Acute Cardiovasc Care*. 2019 Jun;8(4):360-368 *authors contributed equally.
59. **Baumann S**, Becher T, Giannakopolous K, Jabbour C, Fastner C, El-Battrawy, Ansari U, Lossnitzer D, Behnes M, Alonso A, Kirschning T, Dissmann R, Kueck R, Stern D, Michels G, Borggrefe M, Akin I. Bedside implantation of a new temporary vena cava inferior filter-German results of the European ANGEL-Registry. *Med Klin Intensivmed Notfmed*. 2018 Apr;113(3):184-191
60. **Baumann S**, Akin I. Instantaneous wave-free ratio (iFR) zur Diagnostik der koronaren Herzerkrankung? *Der Kardiologie*, Ausgabe 03/2017
61. Tan XW, Zheng Q, Gao F, Shi L, Allen J, Coenen A, **Baumann S**, Schoepf UJ, Kassab G, Lim, ST, Wong SL, Tan WC, Yeo KK, Chin CT, Ho KW, Tan SY, Chua SJ, Chan SY, Tan RS, Zhong L. Combined Diagnostic Performance of Coronary Computed Tomography Angiography and Computed Tomography Derived Fractional Flow Reserve in the Evaluation of Myocardial Ischemia: A Meta-analysis. *Int J Cardiol* 2017 Jun 1;236:100-106.
62. El-Battrawy I, Ansari U, Behnes M, Hillenbrand D, Schramm K, Haghi D, Hoffmann U, Papavassiliu T, Elmas E, Fastner C, Becher T, **Baumann S**, Dösch C, Heggemann F, Kuschyk J, Borggrefe M, Akin I. Clinical and echocardiographic analysis of patients suffering from recurrent takotsubo cardiomyopathy. *J Geriatr Cardiol*. 2016 Nov;13(11):888-893.
63. **Baumann S**, Roeger S, Becher T, Akin I, Borggrefe M, Kuschyk J. Sky Fall - A Guiding Angel and a Life Saving Shock of a Subcutaneous ICD. *Herzschriftmacherther Elektrophysiol* 2017 Mar;28(1):64-66.
64. **Baumann S**, Renker M, Akin I, Borggrefe M, Schoepf UJ. Fractional flow reserve derived from coronary computed tomography angiography using workstation-based approaches. *JACC Cardiovasc Imaging* 2017 Apr;10(4):497-498.

65. Lossnitzer D, **Baumann S**, Henzler T. Dynamic 4-dimensional CT angiography for the assessment of pulmonary perfusion in an adult patient with pulmonary artery occlusion and one MAPCA after multistage repair of Fallot's Pentalogy. *Cardiol Young*. 2017 Jun;13:1-2.
66. McQuiston AD, Crawford C, Schoepf UJ, Varga-Szemes A, Canstein C, Renker M, De Cecco CN, **Baumann S**, Naylor GJP. Segmentations of the Cartilaginous Skeletons of Chondrichthyan Fishes by the Use of State-of-the-Art Computed Tomography. *World J Radiol*. 2017 Apr;28(4):191-198.
67. **Baumann S**, Becher T, Schoepf UJ, Lossnitzer D, Henzler T, Akin I, Borggrefe M, Renker M. Fractional Flow Reserve derived by Coronary Computed Tomography Angiography - A sophisticated analysis method to detect hemodynamically significant coronary stenosis. *2017 Sep;42(6):604-60*
68. Bill V, El-Battrawy I, Behnes M, **Baumann S**, Becher T, Elmas E, Hoffmann U, Haghi D, Fastner C, Kuschyk J, Papavassiliu T, Borggrefe M, Akin I. "Diabetes Paradox" in Takotsubo Cardiomyopathy. *Int J Cardiol* 2016 Dec 1;224:88-89
69. **Baumann S**, Tesche C, Schoepf UJ, Borggrefe M, Akin I, Renker M. Hype or Hope? Coronary Computed Tomography Angiography derived Fractional Flow Reserve. *Circ Res* 2016 Sep 2;119(6):e106-7
70. **Baumann S**, Renker M, Fuller SR, Weiß C, Becher T, Lehmann R, Akin I, Borggrefe M, Lang S, Schoepf UJ. Meta-Analysis with Intermediate Stenosis Subgroup Evaluation of Coronary Computed Tomography Angiography versus Invasive Coronary Angiography for Assessing Fractional Flow Reserve. *Acad Radiol*. 2016 Nov;23(11):1402-1411.
71. Becher T, El-Battrawy I, **Baumann S**, Fastner C, Behnes M, Lossnitzer D, Elmas E, Hofmann U, Papavassiliu T, Kuschyk J, Doesch C, Roeger S, Borggrefe M, Akin I. Characteristics and long-term outcome of right ventricular involvement in Takotsubo cardiomyopathy. *Int J Cardiol*. 2016 Oct 1;220:371-5.
72. El-Battrawy I, Behnes M, Ansari U, Hillenbrand D, Haghi D, Hoffmann U, Papavassiliu T, Elmas E, Fastner C, Becher T, **Baumann S**, Doesch C, Heggemann F, Kuschyk J, Borggrefe M, Akin I. Comparison and outcome analysis of patients with apical and non-apical takotsubo cardiomyopathy. *QJM*. 2016 Dec;109(12):797-802.
73. Huseynov A, **Baumann S**, Becher T, Koepf J, Lang S, Jabbour C, Behnes M, Borggrefe M, Akin I. et al. Liver and Cholestatic Parameters as Prognostic Biomarkers of in-Hospital MACE in Patients with STEMI. *Eur J Clin Invest*. 2016 Aug;46(8):721-9.
74. El-Battrawy I, Behnes M, Hillenbrand D, Haghi D, Hoffmann U, Papavassiliu T, Lang S, Fastner C, Becher T, **Baumann S**, Heggemann F, Kuschyk J, Borggrefe M, Akin I. Prevalence, Clinical Characteristics and Predictors of Patients with Thromboembolic Events in Takotsubo Cardiomyopathy. *Clin Med Insights Cardiol*. 2016 Jul 12;10:117-22.
75. **Baumann S**, Becher T, Jabbour C, Fastner C, Giannakopoulos K, Behnes M, Henzler T, Alonso A, Britsch S, Loßnitzer D, Borggrefe M, Akin I. Bedside implantation of a new temporary vena cava inferior filter in acute pulmonary embolism and contraindication of anticoagulation. *Med Klin Intensivmed Notfmed*. 2017 Apr;112(3):246-251.
76. Becher T, Behnes M, Ünsal M, **Baumann S**, El-Battrawy, Fastner C, Kuschyk J, Papavassiliu T, Hoffmann U, Mashayekhi K, Borggrefe M, Akin I. Radiation exposure and contrast agent use related to radial versus

femoral arterial access during percutaneous coronary intervention (PCI) - results of the FERARI study. Cardiovasc Revasc Med 2016 Dec;17(8):505-509.

77. Bayer RR II, Tesche C, Felmy LM, De Cecco CN, Renker M, **Baumann S**, Schoepf UJ. Anatomy and Physiology in a Single Non-invasive Test: CTA-derived FFR. Curr Radiol Rep July 2016, 4:41.
78. Renker M, Schoepf UJ, Becher T, Krampulz N, Kim W, Rolf A, Moellmann H, Hamm CW, Henzler T, Borggrefe M, Akin I **Baumann S**. Derivation of fractional flow reserve from computed tomography in patients with stable chronic coronary artery disease. Herz. 2017 Feb;42(1):51-57.
79. Tesche C, De Cecco CN, Caruso D, **Baumann S**, Renker M, Mangold S, Dyer KT, Varga-Szemes A, Baquet M, Jochheim D, Ebersberger U, Bayer RR 2nd, Hoffmann E, Steinberg DH, Schoepf UJ. Coronary CT angiography derived morphological and functional quantitative plaque markers correlated with invasive fractional flow reserve for detecting hemodynamically significant stenosis. J Cardiovasc Comput Tomogr. 2016 May-Jun;10(3):199-206.
80. Fastner C, Behnes M, Sartorius B, Yildiz M, Mashayekhi K, El-Battrawy I, Lehmann R, **Baumann S**, Becher T, Borggrefe M, Akin I. Left atrial appendage morphology, echocardiographic characterization, procedural data and in-hospital outcome of patients receiving left atrial appendage occlusion device implantation: a prospective observational study. BMC Cardiovasc Disord. 2016 Jan 28;16(1):25.
81. **Baumann S**, Koepp J, Becher T, Huseynov A, Behnes M, Fastner C, El-Battrawy, Renker M, Lang S, Weiß C, Borggrefe M, Lehmann R, Akin I. Biomarker evaluation as a potential cause of gender differences in obesity paradox among patients with STEMI. Cardiovasc Revasc Med 2016 Mar;17(2):88-94.
82. **Baumann S**, Akin I, Borggrefe M, Schoepf UJ, Ball DB Jr, Renker M. Different Approaches for Coronary Computed Tomography Angiography-derived versus Invasive Fractional Flow Reserve Assessment. Am J Cardiol. 2016 Feb 1;117(3):486
83. **Baumann S**, Huseynov A, El-Battrawy I, Renker M, Akin I. Novel Oral Anticoagulants: Recommendations for Patient Evaluation, Treatment Initiation, Follow-up and Perioperative Management. Cardiovasc Hematol Disord Drug Targets. 2015;15(2):120-6.
84. Huseynov A, **Baumann S**, El-Battrawy I, Akin I. Novel Oral Anticoagulation Laboratory Monitoring, Interaction and Treatment of Complications. Cardiovasc Hematol Disord Drug Targets. 2015;15(2):115-9.
85. El-Battrawy I, **Baumann S**, Huseynov A, Akin I. New Oral Anticoagulation after Heart Valve Replacement. Cardiovasc Hematol Disord Drug Targets. 2015;15(2):106-9.
86. **Baumann S**, Becher T, Frambach D, Wenz H, Kirschning T, Borggrefe M, Rapp S, Akin I. Hyponatremia induced life threatening cerebral edema after ecstasy use. Med Klin Intensivmed Notfmed. 2016 Sep;111(6):547-50.
87. Wang R, **Baumann S**, Schoepf UJ, Meinel FG, Rier JD, Morris JZ, Möllmann H, Hamm CW, Steinberg DH, Renker M. Quantitative Stenosis Characteristics at Routine Coronary Computed Tomography Angiography: Predictive Value for Lesion-Specific Ischemia Compared to Invasive Fractional Flow Reserve Measurement. J Cardiovasc Comput Tomogr. 2015 Nov-Dec;9(6):546-52.

88. Anneken L*, **Baumann S***, Vigneault P*, Biliczki P, Friedrich C, Zumhagen S, Xiao L, Girmatsion, Takac I, Brandes RP, Kissler S, Wiegratz I, Stallmeyer B, Hohnloser SH, Klingenberg T, Nattel S, Schulze-Bahr E, Ehrlich JR. Estradiol regulates human QT-interval - Acceleration of cardiac repolarization by enhanced KCNH2 membrane trafficking. *Eur Heart J.* 2016 Feb;14(7):640-50
89. Newallo D, Meinel FG, Schoepf UJ, **Baumann S**, De Cecco CN, Leddy RJ, Vliegenthart R, Möllmann H, Hamm CW, Morris PB, Renker M. Mammographic Detection of Breast Arterial Calcifications as an Independent Predictor of Coronary Atherosclerotic Disease in African American Women. *Atherosclerosis.* 2015 Jul 8;242(1):218-221.
90. Renker M, Varga-Szemes A, Schoepf UJ, **Baumann S**, Piccini D, Zenge MO, Rehwald WG, Müller E, Rier JD, Möllmann H, Hamm CW, Steinberg DH, De Cecco CN. A non-contrast, free-breathing, self-navigated MR technique for aortic root and vascular access route assessment in the context of transcatheter aortic valve replacement. *Eur Radiol.* 2016 Apr;26(4):951-8.
91. Wang R, Renker M, Schoepf UJ, Wichmann JL, Fuller SR, Rier JD, Bayer RR, Steinberg DH, De Cecco CH, **Baumann S**. Diagnostic Value of Quantitative Stenosis Predictors with Coronary CT Angiography Compared to Invasive Fractional Flow Reserve. *Eur J Radiol.* 2015 Aug;84(8):1509-15
92. **Baumann S**, Huseynov A, Jabbour C, Köpp J, Bechter T, Behnes M, Renker M, Lang S, Borggrefe M, Akin I. Comparison of Serum Bilirubin with C-reactive Protein and Uric Acid Levels as Predictors for In-Hospital Mortality in Patients with ST-Segment Elevation Myocardial Infarction. *Angiology.* 2016 Mar;67(3):272-80.
93. Becher T, **Baumann S**, Huseynov A, Behnes M, Borggrefe M, Akin I. Percutaneous coronary intervention in a patient with STEMI and a myocardial bridge: an increased risk for coronary artery perforation? *Cardiovasc Revasc Med.* 2015 Jun;16(4):246-8.
94. **Baumann S**, Frambach D, Huseynov A, Becher T, Boecker C, Behnes M, Rapp S, Papavassiliou T, Borggrefe M, Akin I. The value of multimodality imaging for detection, characterization and decision making of a wall adherent structure in right atrium in a 18 year old patient with t-cell lymphoma. *Images Paediatr Cardiol.* 2014;16(2):1-7
95. **Baumann S**. Cytarabine, Venous Catheter Removal, Sepsis, Diagnosis of Malignancy, and Takotsubo Syndrome. *Oncol Res Treat.* 2015;38(3):125
96. **Baumann S**, Renker M, Meinel FG, Wichmann JL, Fuller SR, Bayer RR 2nd, Schoepf UJ, Steinberg DH. CT Imaging of Coronary Artery Plaque - Characterization and Prognosis. *Radiol Clin North Am.* 2015 Mar;53(2):307-315
97. Renker M, **Baumann S**, Ebersberger U, Harris BS, Rier JD, Schoepf UJ, Chiaramida SA. Imaging Coronary Artery Disease and the Myocardial Ischemic Cascade – Clinical Principles and Scope. *Radiol Clin North Am.* 2015 Mar;53(2):261-269
98. **Baumann S**, Jabbour C, Huseynov A, Hagh D, Borggrefe M, Papavassiliou T. Myocardial scar detected by cardiovascular magnetic resonance in a competitive bodybuilder with longstanding abuse of anabolic steroids. *Asian J Sports Med.* 2014;5(4):e24058

99. Browning CM, Craft JF, Renker M, Schoepf UJ, **Baumann S**. Squamous Cell Carcinoma of the Tongue with Metastasis to the Right Ventricle. *Am J Med Sci*. 2015 May;349(5):461-2
100. **Baumann S**, De Cecco CN, Schoepf UJ, Wince WB, Suranyi P, Spruill LS, Varga-Szemes A. Correlation of Cardiac MRI and Histopathology In Eosinophilic Endo-Myocarditis. *Circ Cardiovasc Imaging*. 2014 Dec 31;8(1).
101. **Baumann S**, Wang R, Schoepf UJ, Steinberg DH, Spearman JV, Bayer RR 2nd, Hamm CW, Renker M. Coronary CT Angiography-Derived Fractional Flow Reserve Correlated with Invasive Fractional Flow Reserve Measurements – Initial Experience with a Novel Algorithm. *Eur Radiol*. 2015 Apr;25(4):1201-7.
102. Renker M, Wang R, Schoepf UJ, Spearman JV, **Baumann S**. A Novel Approach for Fractional Flow Reserve Derivation from Coronary CT Angiography. *Coron Artery Dis*. 2015 May;26(3):279-80
103. **Baumann S**, Renker M, Schoepf UJ, Suranyi P, Harris BS, Varga-Szemes A. Invasive Cardiac Aspergillosis with Postinfectious Left Ventricular Aneurysm in a Patient with Acute Myeloid Leukemia. *Can J Cardiol*. 2014 Nov;30(11):p1463.e1–1463.e2
104. **Baumann S**, Renker M, Spearman JV, Bayer RR 2nd, Schoepf UJ, De Cecco CN. Giant left ventricular pseudoaneurysm as a complication after mitral valve replacement surgery. *Ann Thorac Surg*. 2014 Oct;98(4):1480.
105. Rier JD, Schoepf UJ, Renker M, **Baumann S**, Powers ER. Aortocoronary Saphenous Vein Graft Aneurysm Causing High Gradient Right Ventricular Outflow Tract Obstruction. *Eur Heart J Cardiovasc Imaging*. 2015 Jan;16(1):117.
106. Renker M, Schoepf UJ, Wang R, Meinel FG, Rier JD, Bayer RR 2nd, Möllmann H, Hamm CW, Steinberg DH, **Baumann S**. Diagnostic Value of a Novel Coronary Computed Tomography Angiography-based Approach for Assessing Fractional Flow Reserve: Comparison with Invasive Measurement. *Am J Cardiol*. 2014 Nov 1;114(9):1303-8.
107. Behnes M, Haubenreisser H, Huseynov A, Boecker C, **Baumann S**, Heggemann F, Becher T, Hoffmann U, Elmas E, Papavassiliu T, Borggrefe M, Schoenberg S, Henzler T, Akin I. Submillisievert ECG-Gated Whole Thoracic CT-Angiography for Evaluation of a Complex Congenital Heart Defect in a Young Woman. *Int J Cardiol*. 2014 Sep 20;176(2):e54-5.
108. **Baumann S**, Huseynov A, Goranova D, Faust M, Behnes M, Nolte F, Heidenreich D, Hofmann WK, Borggrefe M, Akin I, Klein S. Takotsubo Cardiomyopathy after systemic consolidation therapy with high-dose intravenous Cytarabin in a patient with acute myeloid leukemia. *Oncol Res Treat* 2014;37:487-490
109. **Baumann S**, Spearman JV, Schoepf UJ, Renker M. Cardiovascular Imaging Revealing Pectus Excavatum as an Unexpected Cause for Typical Cardiologic Signs. *Eur Heart J Cardiovasc Imaging*. 2014 Oct;15(10):1184
110. **Baumann S**, Huseynov A, Behnes M, Frambach D, Boecker C, Becher T, Henzler T, Lehmann R, Borggrefe M, Akin I. Treatment optimization of aorto-coronary dissection as a complication after heart catheterization using coronary computerized tomographic angiography. *Can J Cardiol*. 2014 Jun;30(6):696.e13-5.

111. **Baumann S**, Reinwald M, Haghi D, Hofmann WK, Buchheidt D. Coinfection of *Pneumocystis jirovecii* and invasive pulmonary aspergillosis in an immunocompromised patient: a diagnostic challenge. *Onkologie* 2013;36:582–584.
112. Behnes M, **Baumann S**, Borggrefe M, Haghi D. Biventricular Tako-tsubo Cardiomyopathy in a Heart Transplant Recipient. *Circulation* 2013 Jul 30;128(5):e62-3.
113. **Baumann S**, Kuchler F, Reinwald M, Tenenbaum T, Härtel N, Hofmann WK, Buchheidt D. Hodgkin's lymphoma in a patient with cystic fibrosis: a clinical challenge. *Ann Hematol* 2013 Apr;92(4):571-2.
114. Ehrlich JR, Kaluzny M, **Baumann S**, Lehmann R, Hohnloser SH. Biomarkers of structural remodelling and endothelial dysfunction for prediction of cardiovascular events or death in patients with atrial fibrillation. *Clin Res Cardiol* 2011 Nov;100(11):1029-36.
115. Schmitt J, **Baumann S**, Klingenberg T, Richter S, Duray G, Hohnloser SH, Ehrlich JR. Assessment of Microvolt T-Wave Alternans in High Risk Patients with the Congenital Long QT Syndrome. *Ann Noninvasive Electrocardiol* 2009;14:340–345