

Publikationsverzeichnis

1. Balata M, Sugiura A, Hassan M, Rady M, Christoph M, Ibrahim K, **Becher MU**, Youssef A. Impact of semaglutide on health outcomes and mood in obese heart failure patients: a retrospective analysis. **Clin Res Cardiol.** **2025** Jun 10. doi: 10.1007/s00392-025-02694-5. Epub ahead of print. PMID: 40493069. IF: 5.460
2. Balata M, Radbruch L, Hesse M, Westenfeld R, Neukirchen M, Pfister R, Batzler YN, Öztürk C, Kavsar R, Tiyerili V, Welteermann B, Pölsler R, Standl Th, Nickenig G, **Becher MU**, Heart Failure Network Rhineland. Early integration of palliative care versus standard cardiac care for patients with heart failure (EPCHF): a multicentre, parallel, two-arm, open-label, randomised controlled trial. *Randomized Controlled Trial, Lancet Healthy Longev.* **2024** Oct;5(10):100637. doi: 10.1016/j.lanhl.2024.08.006. Epub 2024 Oct 1. PMID: 39366392. IF: 13.6

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3. Balata M, **Becher MU**. Impact of semaglutide on weight and functional outcomes among obese heart failure patients: a propensity scores matching analysis. *BMC Cardiovasc Disord* **2024** Oct 26;24(1):590. doi: 10.1186/s12872-024-04275-2. PMID: 39462311. IF 2.4
4. Balata M, Gbreel MI, Hassan M, **Becher MU**. Comparative analysis of MitraClip/TriClip and PASCAL in transcatheter tricuspid valve repair for tricuspid regurgitation: a systematic review and meta-analysis. *BMC Cardiovasc Disord.* **2024** Oct 14;24(1):557. doi: 10.1186/s12872-024-04201-6. PMID: 39402473. IF: 2.4
5. von Stein P, Besler C, Riebisch M, Al-Hammadi O, Ruf T, Gerçek M, Grothusen C, Mehr M, **Becher MU**, Friedrichs K, Öztürk C, Baldus S, Guthoff H, Rassaf T, Thiele H, Nickenig G, Hausleiter J, Möllmann H, Horn P, Kelm M, Rudolph V, von Bardeleben RS, Nef HM, Luedike P, Lurz P, Pfister R, Mauri V. One-Year Outcomes According to Mitral Regurgitation Etiology Following Transcatheter Edge-to-Edge Repair With the PASCAL System: Results From a Multicenter Registry. *J Am Heart Assoc.* **2023** Dec 19;12(24):e031881. doi: 10.1161/JAHA.123.031881. Epub 2023 Dec 12. PMID: 38084735. IF 5.501
6. Kavsar R, Schaefer C, Stumpf MJ, Weber M, Sugiura A, **Becher MU**, Zimmer S, Nickenig G, Schahab N. Carotid Stiffness After Transcatheter Aortic Valve Replacement. *Angiology.* **2023** Aug 12: 33197231195647. doi: 10.1177/00033197231195647. PMID: 37571920. IF 2.8
7. Balata M, Gbreel MI, Elrashedy AA, Westenfeld R, Pfister R, Zimmer S, Nickenig G, **Becher MU**, Sugiura A. Clinical effects of cognitive behavioral therapy in heart failure patients: a meta-analysis of randomized controlled trials. *BMC Complement Med Ther.* **2023** Aug 7;23(1):280. doi: 10.1186/s12906-023-04117-2. PMID: 37550665; PMCID: PMC10405476. IF: 4.13 (2.065)
8. Vogelhuber J, Tanaka T, Sugiura A, Galka N, Hupp-Herschel HE, **Becher MU**, Zimmer S, Nickenig G, Kavsar R, Weber M. Association of TRI-SCORE With Clinical Outcomes After Transcatheter Tricuspid Valve Repair. *JACC Cardiovasc Interv.* **2023** Jul

10;16(13):1698-1700. doi: 10.1016/j.jcin.2023.04.005. Epub 2023 Jun 7. PMID: 37294224. IF: 11.075.

9. Biener L, Vogelhuber J, Alboany H, Tiyerili V, Weber M, Linhart M, **Becher MU**, Schenk A, Nickenig G, Skowasch D, Pizarro C. Prevalence of sleep-disordered breathing in patients with mitral regurgitation and the effect of mitral valve repair. *Sleep Breath.* 2023 May;27(2):599-610. doi: 10.1007/s11325-022-02667-2. Epub 2022 Jun 20. PMID: 35725864. IF: 2.655 (1.327)
10. Eckel C, Blumenstein J, Husser O, Sötemann D, Grothusen C, Schlüter J, **Becher MU**, Nef H, Elsässer A, Nickenig G, Möllmann H, Tiyerili V. Prognostic Impact of the Get-with-the-Guidelines Heart-Failure Risk Score (GWTG-HF) after Transcatheter Aortic Valve Replacement in Patients with Low-Flow-Low-Gradient Aortic Valve Stenosis. *Diagnostics (Basel).* 2023 Apr 6;13(7):1357. doi: 10.3390/diagnostics13071357. PMID: 37046575; PMCID: PMC10093203. IF: 3.992 (1.996)
11. Tiyerili V, Sötemann D, Grothusen C, Eckel C, **Becher MU**, Blumenstein J, Nef H, Möllmann H. Latest Advances in Transcatheter Aortic Valve Implantation (2022). *Surg Technol Int.* 2022 May 19;40:221-225. doi: 10.52198/21.STI.40.CV1478. PMID: 35015897. IF: 0.248 (0.124)
12. Al-Kassou B, Shamekhi J, Weber M, Germeroth J, Gillrath J, Feldmann K, Sedaghat A, Werner N, Treede H, **Becher MU**, Tiyerili V, Grube E, Zimmer S, Nickenig G, Sinning JM. Frailty, malnutrition, and the endocrine system impact outcome in patients undergoing aortic valve replacement. *Catheter Cardiovasc Interv.* 2022 Jan 1;99(1):145-157. doi: 10.1002/ccd.29821. Epub 2021 Jun 18. PMID: 34143555. IF: 7.514 (3.757)
13. Sugiura A, Shamekhi J, Goto T, Spieker M, Iliadis C, Kavsar R, Mauri V, Kelm M, Baldus S, Tanaka T, Tabata N, Sinning JM, Weber M, Zimmer S, Nickenig G, Westenfeld R, Pfister R, **Becher MU**; of the Heart Failure Network Rhineland. Early response of right-ventricular function to percutaneous mitral valve repair. *Clin Res Cardiol.* 2022 Aug;111(8):859-868. doi: 10.1007/s00392-021-01951-7. Epub 2021 Oct 20. PMID: 34669015; PMCID: PMC9334433. IF: 4.6
14. Haurand JM, Kavsar R, Ochs L, Tanaka T, Iliadis C, Sugiura A, Kelm M, Nickenig G, Baldus S, Westenfeld R, **Becher MU**, Pfister R, Horn P. Deep sedation vs. general anesthesia for transcatheter tricuspid valve repair. *Front Cardiovasc Med.* 2022 Aug 31;9:976822. doi: 10.3389/fcvm.2022.976822. PMID: 36119730; PMCID: PMC9471949. IF: 6.05 (3.025)
15. Tanaka T, Kavsar R, Sugiura A, Haurand JM, Galka N, Öztürk C, Vogelhuber J, **Becher MU**, Weber M, Westenfeld R, Zimmer S, Kelm M, Nickenig G, Horn P, Zachoval C. Acute Kidney Injury Following Tricuspid Transcatheter Edge-to-Edge Repair. *JACC Cardiovasc Interv.* 2022 Oct 10;15(19):1936-1945. doi: 10.1016/j.jcin.2022.07.018. Epub 2022 Aug 22. PMID: 36008268. IF: 11.075 (5.5375)
16. Tanaka T, Kavsar R, Spieker M, Iliadis C, Metze C, Brachtendorf BM, Horn P, Zachoval C, Sugiura A, Kelm M, Baldus S, Nickenig G, Westenfeld R, Pfister R, **Becher MU**. Guideline-directed medical therapy after transcatheter edge-to-edge mitral valve repair. *Heart.* 2022 Oct 13;108(21):1722-1728. doi: 10.1136/heartjnl-2022-320826. PMID: 35672114. IF: 5.213

17. Sugiura A, Kavsar R, Spieker M, Iliadis C, Goto T, Öztürk C, Weber M, Tabata N, Zimmer S, Sinning JM, Mauri V, Horn P, Kelm M, Baldus S, Nickenig G, Westenfeld R, Pfister R, **Becher MU**. Recurrent Mitral Regurgitation After MitraClip: Predictive Factors, Morphology, and Clinical Implication. *Circ Cardiovasc Interv*. 2022 Mar;15(3):e010895. doi: 10.1161/CIRCINTERVENTIONS.121.010895. Epub 2022 Feb 23. PMID: 35193380. IF: 3.56

Cited in 2025 ESC/EACTS Guidelines for the management of valvular heart disease

18. Tanaka T, Sugiura A, Kavsar R, Vogelhuber J, Öztürk C, **Becher MU**, Zimmer S, Nickenig G, Weber M. Leaflet-to-annulus index and residual tricuspid regurgitation following tricuspid transcatheter edge-to-edge repair. *EuroIntervention*. 2022 Jun 3;18(2):e169-e178. doi: 10.4244/EIJ-D-21-00862. PMID: 35193837; PMCID: PMC9904375. IF: 6.534 (3.267)
19. Sugiura A, Kavsar R, Spieker M, Iliadis C, Mauri V, Tanaka T, Goto T, Weber M, Kelm M, Baldus S, Nickenig G, Westenfeld R, Pfister R, **Becher MU**. Impact of right ventricular-pulmonary arterial coupling on clinical outcomes of tricuspid regurgitation. *EuroIntervention*. 2022 Nov 18;18(10):852-861. doi: 10.4244/EIJ-D-22-00045. PMID: 35550286; PMCID: PMC9724878. IF: 6.534 (3.267)
20. Mauri V, Sugiura A, Spieker M, Iliadis C, Horn P, Öztürk C, Besler C, Riebisch M, Al-Hammadi O, Ruf T, Gerçek M, Grothusen C, Mehr M, **Becher MU**, Mues C, Boeder N, Kreidel F, Friedrichs K, Westenfeld R, Braun D, Baldus S, Rassaf T, Thiele H, Nickenig G, Hausleiter J, Möllmann H, Kelm M, Rudolph V, Stephan von Bardeleben R, Nef HM, Luedike P, Lurz P, Pfister R. Early Outcomes of 2 Mitral Valve Transcatheter Leaflet Approximation Devices: A Propensity Score-Matched Multicenter Comparison. *JACC Cardiovasc Interv*. 2022 Dec 26;15(24):2541-2551. doi: 10.1016/j.jcin.2022.10.008. Epub 2022 Nov 30. PMID: 36543448. IF: 11.075 (5.5375)
21. Goody PR, Zimmer S, Öztürk C, Zimmer A, Kreuz J, **Becher MU**, Isaak A, Luetkens J, Sugiura A, Jansen F, Nickenig G, Hammerstingl C, Tiyerili V. 3D-speckle-tracking echocardiography correlates with cardiovascular magnetic resonance imaging diagnosis of acute myocarditis - An observational study. *Int J Cardiol Heart Vasc*. 2022 Jul 12;41:101081. doi: 10.1016/j.ijcha.2022.101081. PMID: 35855974; PMCID: PMC9287637. IF: 0.803 (0.4015)
22. Shamekhi J, Sugiura A, Spieker M, Iliadis C, Weber M, Öztürk C, **Becher MU**, Tiyerili V, Zimmer S, Horn P, Westenfeld R, Pfister R, Mauri V, Sinning JM, Kelm M, Baldus S, Nickenig G. A staging classification of right heart remodelling for patients undergoing transcatheter edge-to-edge mitral valve repair. *EuroIntervention*. 2022 May 15;18(1):43-49. doi: 10.4244/EIJ-D-21-00667. PMID: 34757918; PMCID: PMC9904371. IF: 6.534 (3.267)
23. Zachoval CF, Sedaghat A, Oezkur M, Tiyerili V, **Becher MU**, Sinning JM, Treede H, Nickenig G, Zimmer S. Feasibility and Safety of an 8 F Angioseal® Vascular Closure Device for Closure of Large Bore Impella CP® Access. *J Endovasc Ther*. 2022 Jun;29(3):336-342. doi: 10.1177/15266028211047965. Epub 2021 Sep 24. PMID: 34560827. IF: 2.6 (1.3)

24. Sugiura A, Tanaka T, Kavsar R, Öztürk C, Vogelhuber J, Wilde N, **Becher MU**, Zimmer S, Nickenig G, Weber M. Leaflet Configuration and Residual Tricuspid Regurgitation After Transcatheter Edge-to-Edge Tricuspid Repair. *JACC Cardiovasc Interv.* 2021 Oct 25;14(20):2260-2270. doi: 10.1016/j.jcin.2021.07.048. Epub 2021 Aug 23. PMID: 34424200. IF: 11.075 (5.5375)
25. **Becher MU**, Balata M, Hesse M, Draht F, Zachoval C, Weltermann B, Westenfeld R, Neukirchen M, Pfister R, Standl T, Radbruch L, Nickenig G. Rationale and design of the EPCHF trial: the early palliative care in heart failure trial (EPCHF). *Clin Res Cardiol.* 2022 Apr;111(4):359-367. doi: 10.1007/s00392-021-01903-1. Epub 2021 Jul 9. PMID: 34241674; PMCID: PMC8266990. IF: 6.138
26. Sugiura A, Vogelhuber J, Öztürk C, Schwaibold Z, Reckers D, Goto T, Kavsar R, **Becher MU**, Zimmer S, Nickenig G, Weber M. PASCAL versus MitraClip-XTR edge-to-edge device for the treatment of tricuspid regurgitation: a propensity-matched analysis. *Clin Res Cardiol.* 2021 Mar;110(3):451-459. doi: 10.1007/s00392-020-01784-w. Epub 2020 Dec 12. PMID: 33313975; PMCID: PMC7907034. IF: 6.138 (3.069)
27. Tanaka T, Kavsar R, Spieker M, Iliadis C, Metze C, Horn P, Sugiura A, Baldus S, Kelm M, Nickenig G, Pfister R, Westenfeld R, **Becher MU**. Prognostic value of hepatorenal function following transcatheter edge-to-edge mitral valve repair. *Clin Res Cardiol.* 2021 Dec;110(12):1947-1956. doi: 10.1007/s00392-021-01908-w. Epub 2021 Jul 12. PMID: 34254179; PMCID: PMC8639570. IF: 6.138
28. Marinova M, Feradova H, Gonzalez-Carmona MA, Conrad R, Tonguc T, Thudium M, **Becher MU**, Kun Z, Gorchev G, Tomov S, Strassburg CP, Attenberger U, Schild HH, Dimitrov D, Strunk HM. Improving quality of life in pancreatic cancer patients following high-intensity focused ultrasound (HIFU) in two European centers. *Eur Radiol.* 2021 Aug;31(8):5818-5829. doi: 10.1007/s00330-020-07682-z. Epub 2021 Jan 23. PMID: 33486605. IF: 4.101 (2.05)
29. Tanaka T, Kavsar R, Spieker M, Iliadis C, Metze C, Horn P, Sugiura A, Kelm M, Baldus S, Nickenig G, Westenfeld R, Pfister R, **Becher MU**. Periprocedural changes in natriuretic peptide levels and clinical outcome after transcatheter mitral valve repair. *ESC Heart Fail.* 2021 Dec;8(6):5237-5247. doi: 10.1002/ehf2.13603. Epub 2021 Sep 14. PMID: 34519444; PMCID: PMC8712850. IF: 3.612
30. Iliadis C, Spieker M, Kavsar R, Metze C, Hellmich M, Horn P, Westenfeld R, Tiyerili V, **Becher MU**, Kelm M, Nickenig G, Baldus S, Pfister R. "Get with the Guidelines Heart Failure Risk Score" for mortality prediction in patients undergoing MitraClip. *Clin Res Cardiol.* 2021 Dec;110(12):1871-1880. doi: 10.1007/s00392-021-01804-3. Epub 2021 Jan 31. PMID: 33517496; PMCID: PMC8639563. IF: 6.138 (3.069)
31. Kavsar R, Iliadis C, Spieker M, Brachtendorf BM, Tiyerili V, Metze C, Horn P, Baldus S, Kelm M, Nickenig G, Pfister R, Westenfeld R, **Becher MU**. Predictors and prognostic relevance of tricuspid alterations in patients undergoing transcatheter edge-to-edge mitral valve repair. *EuroIntervention.* 2021 Nov 19;17(10):827-834. doi: 10.4244/EIJ-D-20-01094. PMID: 33646125; PMCID: PMC9724950. IF: 6.534

Cited in 2025 ESC/EACTS Guidelines for the management of valvular heart disease

32. Zweck E, Spieker M, Horn P, Iliadis C, Metze C, Kavsar R, Tiyerili V, Nickenig G, Baldus S, Kelm M, **Becher MU**, Pfister R, Westenfeld R. Machine Learning Identifies Clinical Parameters to Predict Mortality in Patients Undergoing Transcatheter Mitral Valve Repair. *JACC Cardiovasc Interv.* 2021 Sep 27;14(18):2027-2036. doi: 10.1016/j.jcin.2021.06.039. PMID: 34556277. IF: 11.075 (5.5375)
33. Wilde N, Sugiura A, Sedaghat A, **Becher MU**, Kelm M, Baldus S, Nickenig G, Veulemans V, Tiyerili V. Risk of mortality following transcatheter aortic valve replacement for low-flow low-gradient aortic stenosis. *Clin Res Cardiol.* 2021 Mar;110(3):391-398. doi: 10.1007/s00392-020-01752-4. Epub 2020 Oct 14. PMID: 33052475. IF: 6.138 (3.069)
34. Aksoy A, Al-Kassou B, Zaidi MA, Shamekhi J, Repges E, Sedaghat A, **Becher MU**, Treede H, Jansen F, Sinning JM, Zimmer S, Nickenig G, Tiyerili V. Circulating chaperones in patients with aortic valve stenosis undergoing TAVR: impact of concomitant chronic kidney disease. *Transl Res.* 2021 Jul;233:117-126. doi: 10.1016/j.trsl.2021.03.003. Epub 2021 Mar 5. PMID: 33684593. IF: 5.411 (2.705)
35. Tonguc T, Strunk H, Gonzalez-Carmona MA, Recker F, Lütjohann D, Thudium M, Conrad R, **Becher MU**, Savchenko O, Davidova D, Luechters G, Mustea A, Strassburg CP, Attenberger U, Pieper CC, Jenne J, Marinova M. US-guided high-intensity focused ultrasound (HIFU) of abdominal tumors: outcome, early ablation-related laboratory changes and inflammatory reaction. A single-center experience from Germany. *Int J Hyperthermia.* 2021 Sep;38(2):65-74. doi: 10.1080/02656736.2021.1900926. PMID: 34420445. IF: 3.980 (1.990)
36. Kavsar R, Spieker M, Iliadis C, Metze C, Transier M, Tiyerili V, Horn P, Baldus S, Kelm M, Nickenig G, Westenfeld R, Pfister R, **Becher MU**; of the Heart Failure Network Rhineland. Mitral Regurgitation International Database (MIDA) Score Predicts Outcome in Patients With Heart Failure Undergoing Transcatheter Edge-to-Edge Mitral Valve Repair. *J Am Heart Assoc.* 2021 Jul 6;10(13):e019548. doi: 10.1161/JAHA.120.019548. Epub 2021 Jun 30. PMID: 34187184; PMCID: PMC8403297. IF: 6.107
37. Kavsar R, Hupp-Herschel HE, Sugiura A, Tanaka T, Öztürk C, Weber M, Nickenig G, Tiyerili V, **Becher MU**. Prognostic significance of the get with the guidelines-heart failure (GWTG-HF) risk score in patients undergoing trans-catheter tricuspid valve repair (TTVR). *Heart Vessels.* 2021 Dec;36(12):1903-1910. doi: 10.1007/s00380-021-01874-3. Epub 2021 May 22. PMID: 34023969; PMCID: PMC8556194. IF: 1.66
38. Tanaka T, Kavsar R, Sugiura A, Vogelhuber J, Öztürk C, Weber M, Tiyerili V, Zimmer S, Nickenig G, **Becher MU**. Prognostic impact of hepatorenal function in patients undergoing transcatheter tricuspid valve repair. *Sci Rep.* 2021 Jul 13;11(1):14420. doi: 10.1038/s41598-021-93952-9. PMID: 34257395; PMCID: PMC8277825. IF: 4.6
39. Aksoy A, Al Zaidi M, Repges E, **Becher MU**, Müller C, Oldenburg J, Zimmer S, Nickenig G, Tiyerili V. Vitamin K Epoxide Reductase Complex Subunit 1-Like 1 (VKORC1L1) Inhibition Induces a Proliferative and Pro-inflammatory Vascular Smooth Muscle Cell Phenotype. *Front Cardiovasc Med.* 2021 Oct 27;8:708946. doi: 10.3389/fcvm.2021.708946. PMID: 34778390; PMCID: PMC8578699. IF: 6.05 (3.025)

40. Kavsür R, **Becher MU**, Nassan W, Sedaghat A, Aksoy A, Schrickel JW, Nickenig G, Tiyerili V. CHA2DS2-VASC score predicts coronary artery disease progression and mortality after ventricular arrhythmia in patients with implantable cardioverter-defibrillator. *Int J Cardiol Heart Vasc*. 2021 May 25;34:100802. doi: 10.1016/j.ijcha.2021.100802. PMID: 34095451; PMCID: PMC8165543. IF: 0.803 (0.4015)
41. Thudium M, Bette B, Tonguc T, Ghaei S, Conrad R, **Becher MU**, Mücke M, Luechters G, Strunk H, Marinova M. Multidisciplinary management and outcome in pancreatic cancer patients treated with high-intensity focused ultrasound. *Int J Hyperthermia*. 2020;37(1):456-462. doi: 10.1080/02656736.2020.1762006. PMID: 32396479. IF: 3.98 (1.99)
42. Kavsür R, Spieker M, Iliadis C, Metze C, Transier M, Tiyerili V, Horn P, Baldus S, Kelm M, Pfister R, Westenfeld R, Nickenig G, **Becher MU**. MIDA score predicts outcome in heart failure patients undergoing transcatheter edge-to-edge mitral valve repair. *JAHA* 2021. doi: 10.1161/JAHA.120.019548. PMID: 34187184. IF: 4.66
43. Kavsür R, Iliadis C, Metze C, Spieker M, Brachtendorf B, Tiyerili V, Horn P, Baldus S, Kelm M, Pfister R, Westenfeld R, Nickenig G, **Becher MU**. Predictors and prognostic relevance of tricuspid alterations in patients undergoing transcatheter edge-to-edge mitral valve repair. *Eurointervention* 2021. doi: 10.4244/EIJ-D-20-01094. PMID: 33646125. IF: 3.993
44. Iliadis C, Spieker M, Kavsür R, Metze C, Hellmich M, Horn P, Westenfeld R, Tiyerili V, **Becher MU**, Kelm M, Nickenig G, Baldus S, Pfister R. Get with the Guidelines Heart Failure Risk Score for Mortality Prediction in Patients Undergoing MitraClip. *Clin Res Cardiol* 2021. doi: 10.1007/s00392-021-01804-3. PMID: 33517496. IF: 4.455 (2.2275)
45. Mauri V, Besler C, Riebisch M, Al-Hammadi O, Ruf T, Gerçek M, Horn P, Grothusen C, Mehr M, **Becher MU**, Mues C, Boeder N, Kreidel F, Friedrichs K, Westenfeld R, Braun D, Öztürk C, Baldus S, Rassaf T, Thiele H, Nickenig G, Hausleiter J, Möllmann H, Kelm M, Rudolph V, von Bardeleben RS, Nef HM, Luedike P, Lurz P, Pfister R (2020). German Multicenter Experience With a New Leaflet-Based Transcatheter Mitral Valve Repair System for Mitral Regurgitation. *JACC Cardiovasc Interv* 2020; 13(23):2769-2778. doi: 10.1016/j.jcin.2020.08.025. PMID: 33303115. IF: 9.544 (4.772)
46. Stöhr E, Aksoy A, Campbell M, Al Zaidi M, Öztürk C, Vorloeper J, Lange J, Sugiura A, Wilde N, **Becher MU**, Diepenseifen C, Heister U, Nickenig G, Zimmer S, Tiyerili V (2020). Hospital admissions during Covid-19 lock-down in Germany: differences in discretionary and unavoidable cardiovascular events. *PLoS One* 2020. 15(11): e0242653. doi: 10.1371/journal.pone.0242653. PMID: 33216804. IF: 2.74 (1.37)
47. **Becher MU***, Öztürk C*, Kalkan A, Kavsür R, Weber M, Nickenig G, Tiyerili V. The modified MIDA-Score predicts mid-term outcomes after interventional therapy of functional mitral regurgitation. *PLoS One* 2020. 22;15(7): e0236265. doi: 10.1371/journal.pone.0236265. PMID: 32697799. IF: 2.74
48. Jehle J, Tiyerili V, Adler S, Groll K, Nickenig G, **Becher MU**. Atheroprotective effects of 17 β -oestradiol are mediated by peroxisome proliferator-activated receptor in human

- coronary artery smooth muscle cells. *Arch Med Sci Atheroscler Dis* 2020. 5:e118-e126. doi: 10.5114/amsad.2020.96103. PMID: 32665986. IF: 2.838 (1.419)
49. Kavsar R, Hupp H, Sugiura A, Öztürk C, Weber M, Nickenig G, Tiyerili V, **Becher MU**. Pulmonary capillary wedge pressure (PCWP) as prognostic indicator in patients undergoing transcatheter valve repair (TTVR) of severe tricuspid regurgitation. *Int J Cardiol* 2020. 318:32-38. doi: 10.1016/j.ijcard.2020.06.031. PMID: 32598993. IF: 3.471
 50. Thomson T, Funken M, Nickenig G, **Becher MU**. High sensitivity cardiac troponin T (hs-cTnT) versus cardiac troponin I (cTnI) on prediction of significant coronary artery disease in patients hospitalized due to symptomatic atrial fibrillation. *Clin Res Cardiol* 2021. doi: 10.1007/s00392-021-01843. IF: 4.455
 51. Tanaka T, Kavsar R, Sugiura A, Vogelhuber J, Öztürk C, Weber M, Tiyerili V, Zimmer S, Nickenig G, **Becher MU**. Prognostic impact of hepatorenal function in patients undergoing transcatheter tricuspid valve repair. *Sci Rep*. 2021 Jul 13;11(1):14420. doi: 10.1038/s41598-021-93952-9. PMID: 34257395. IF: 4.996
 52. Tanaka T, Kavsar R, Spieker M, Iliadis C, Horn P, Metze C, Westenfeld R, Tiyerili V, Kelm M, Baldus S, Pfister R, Nickenig G, **Becher MU**. Prognostic Role of Hepatorenal Function Index MELD-XI Score following Transcatheter Mitral Valve Repair. *Clin Res Cardiol* 2021. doi: 10.1007/s00392-021-01843. PMID: 34254179. IF: 4.455
 53. Spieker M, Metze C, Kavsar R, Horn P, Iliadis C, Tiyerili V, Pfister R, **Becher MU***, Westenfeld R* (2019). Prognostic Value of the CHA₂DS₂-VASc Score in Patients Undergoing the MitraClip Procedure. *JACC Cardiovasc Interv*. 2019. 12(24):2562-2564. doi: 10.1016/j.jcin.2019.08.045. PMID: 31857031. IF: 9.544 (4.92)
 54. Aksoy A, Salazar C, **Becher MU**, Tiyerili V, Weber M, Jansen F, Sedaghat A, Zimmer S, Leick J, Grube E, Gonzalo N, Sinning JM, Escaned J, Nickenig G, Werner N (2019). Intravascular Lithotripsy in Calcified Coronary Lesions: A Prospective, Observational, Multicenter Registry. *Circ Cardiovasc Interv* 2019. 12(11): e008154. doi: 10.1161/CIRCINTERVENTIONS.119.008154. PMID: 31707803. IF: 6.06 (3.03)
 55. Zietzer A, Niepmann ST, Camara B, Lenart MA, Jansen F, **Becher MU**, Andrié R, Nickenig G, Tiyerili V (2019). Sodium thiocyanate treatment attenuates atherosclerotic plaque formation and improves endothelial regeneration in mice. *PLoS One* 2019. 14(4):e0214476. doi: 10.1371/journal.pone.0214476. PMID: 30939159. IF: 2.74 (1.37)
 56. **Becher MU***, Tiyerili V*, Camara B, Yildirimtürk C, Aksoy A, Kebschull M, Werner N, Nickenig G, Müller C (2015). Impact of peroxisome proliferator-activated receptor γ on angiotensin II type 1 receptor-mediated insulin sensitivity, vascular inflammation and atherogenesis in hypercholesterolemic mice. *Arch Med Sci* 2015. 11(4):877-885. PMID: 26322101. IF: 2.030
 57. **Becher MU**, Möller L, Tiyerili V, Vasa-Nicoteira M, Hauptmann F, Zimmermann K, Pfeifer A, Nickenig G, Wassmann S, Werner N (2014). Distinct CD11b⁺-monocyte subsets accelerate endothelial cell recovery after acute and chronic endothelial cell damage. *International J Cardiol* 2014. 173(1):80-91. PMID: 24602320. IF: 6.175

58. **Becher MU***, Tiyerili V*, Aksoy A, Lütjohann D, Wassmann S, Nickenig G, Mueller CF (2013). AT1-receptor- deficiency induced atheroprotection in diabetic mice is partially mediated via PPAR γ . *Cardiovasc Diabetol*. 12:30. PMID: 23374104. IF: 4.015
59. Tiyerili V, Müller CF, Fung S, Panek D, Nickenig G, **Becher MU** (2012). Estrogen improves vascular function via peroxisome-proliferator-activated-receptor- γ . *J Mol Cell Cardiol*. 2012. 53(2):268- 76. PMID: 22634137. IF: 5.218
60. **Becher MU**, Andrié RP, Frommold R, Tiyerili V, Schrickel JW, Nickenig G, Schwab JO (2012). Interleukin- 6 is the strongest predictor of 30-day mortality in patients with cardiogenic shock due to myocardial infarction. *Crit Care*. 2012. 16(4):R152. PMID: 22889197. IF: 5.035
61. Jansen F, Yang X, Hoyer FF, Paul K, Heiermann N, **Becher MU**, Abu Hussein N, Kebschull M, Bedorf J, Franklin BS, Latz E, Nickenig G, Werner N (2012). Endothelial microparticle uptake in target cells is annexin I/phosphatidylserine receptor dependent and prevents apoptosis. *Arterioscler Thromb Vasc Biol*. 32(8):1925-35. PMID: 22701020. IF: 6.338 (3.169)
62. Tiyerili V, Mueller CF, **Becher MU**, Czech T, van Eickels M, Daiber A, Nickenig G, Wassmann S (2012). Stimulation of the AT2 receptor reduced atherogenesis in ApoE-/AT1A- double-knock-out-mice. *J Mol Cell Cardiol* 2012. 52(3):630-7. PMID: 22230040. PMID: 21484412. IF: 5.218 (2.609)
63. **Becher MU**, Sivritas D, Ebrahimian T, Arfa O, Rapp S, Böhner A, Mueller CF, Umemura T, Wassmann S, Nickenig G, Wassmann K (2012). Proliferative effect of estrogen in vascular smooth muscle cells is mediated by Kruppel-like factor-4 and manganese superoxide dismutase. *Basic Res Cardiol* 2012. 106(4):563-75. PMID: 21484412. IF: 5.955
64. **Becher MU**, Ghanem A, Tiyerili V, Fürst DO, Nickenig G, Mueller CF (2011). Inhibition of leukotriene C4 action reduces oxidative stress and apoptosis in cardiomyocytes and impedes remodelling after myocardial injury. *J Mol Cell Cardiol*. 50(3):570-7. PMID: 21112334. IF: 5.218
65. Mueller CF, Afzal S, **Becher MU**, Wassmann S, Nickenig G, Wassmann K (2010). Role of the multidrug resistance protein-1 (MRP1) for endothelial progenitor cell function and survival. *J Mol Cell Cardiol* 2010. 49(3): 482-9. PMID: 20206183. IF: 5.218 (2.609)
66. **Becher MU**, Mueller CF, Zimmer S, Wassmann S, Keuler B, Nickenig G (2010). Angiotensin II triggers release of leukotriene C(4) in vascular smooth muscle cells via the multidrug resistance- related protein 1. *Mol Cell Biochem* 2010. 333(1-2):261-7. PMID: 19685171. IF: 2.393
67. Wassmann K, Mueller CF, **Becher MU**, Werner C, Jung A, Zimmer S, Steinmetz M, Nickenig G, Wassmann S (2010). Interaction of Inhibitor of DNA binding 3 (Id3) with Gut-enriched Kruppel-like factor (GKLF) and p53 regulates proliferation of vascular smooth muscle cells. *Mol Cell Biochem* 2010. 333(1-2):33-9. PMID: 19618124. IF: 2.393 (1.197)

68. **Becher MU**, Breitbach M, Sasse P, Garbe S, van der Ven PF, Furst DO, Fleischmann BK (2009). Enrichment and terminal differentiation of striated muscle progenitors in vitro. *Exp Cell Res* 2009. 315(16):2741-51. PMID: 19615359. IF: 3.372
69. Hofmann A, Wenzel D, **Becher MU**, Freitag DF, Klein AM, Eberbeck D, Schulte M, Zimmermann K, Bergemann C, Gleich B, Roell W, Weyh T, Trahms L, Nickenig G, Fleischmann BK, Pfeifer A (2009). Combined targeting of lentiviral vectors and positioning of transduced cells by magnetic nanoparticles. *Proc Natl Acad Sci U S A* 2009. 106(1):44-9. PMID: 19118196. IF: 9.809 (4.905)
70. Roell W, Lewalter T, Sasse P, Tallini YN, Choi BR, Breitbach M, Doran R, **Becher MU**, Hwang SM, Bostani T, von Maltzahn J, Hofmann A, Reining S, Eiberger B, Gabris B, Pfeifer A, Welz A, Willecke K, Salama G, Schrickel JW, Kotlikoff MI, Fleischmann BK (2007). Engraftment of connexin 43-expressing cells prevents post-infarct arrhythmia. *Nature* 2007. 450:819-824. PMID: 18064002. IF: 42.351 (21.176)
71. Wassmann S, Wassmann K, Jung A, Velten M, Knuefermann P, Petoumenos V, **Becher MU**, Werner C, Mueller C, Nickenig G (2007). Induction of p53 by GSK-3 β is essential for inhibition of proliferation of vascular smooth muscle cells. *J Mol Cell Cardiol* 2007; 43:301-7. PMID: 17659301. IF: 5.218 (2.609)

Übersichtsarbeiten

1. Gbreel MI, Elkasaby MH, Hassan M, **Becher MU**, Balata M. Optimizing antithrombotic therapy following mitral valve repair: a comprehensive network meta-analysis. *BMC Cardiovasc Disord*. 2025 Aug 23;25(1):628. doi: 10.1186/s12872-025-04974-4. PMID: 40849614, IF: 2.3
2. **Becher MU**, Nickenig G (2021). Moving (re-shaping) the mitral annulus. *EuroIntervention*. 2021. 16(13):1044-1045. doi: 10.4244/EIJV16I13A190. PMID: 33470217. IF 3.993
3. **Becher MU** (2020). Sequential Natriuretic Peptide Measurements to Monitor Treatment and Prognosis During Heart Failure Therapy. *Dtsch Med Wochenschr*. 2020 Apr;145(7):458-463. doi: 10.1055/a-0976-8813. PMID: 32236926. IF: 0.444
4. Radbruch L, Hesse M, **Becher MU** (2020). Herzinsuffizienz-Patienten profitieren von früher palliativer Versorgung Kardiologie. *MMW Fortschr Med* 2020; 162(18):43-47. doi: 10.1007/s15006-020-4374-z. IF: 0.030
5. **Becher MU** (2017). Mit SGLT 2-Inhibitoren gegen Herzinsuffizienz. *Diabetes-Forum* 2017. 29 (5): 16-18. IF: 0.000
6. **Becher MU**, Nickenig G (2017). Antikoagulation bei perkutaner Koronarintervention-Update 2017. *Kardiologie up2date* 2017. 13(04): 339-354, doi: 10.1055/s-0043-121499. IF: 0.000
7. **Becher MU**, Tiyerili V, Skowasch D, Nickenig G, Werner N (2011). Personalized cardiac regeneration by stem cells - Hype or hope? *The EPMA Journal* 2011. 2(1): 119-30 Review Article. PMID: 23199133. (Paper Award of the Journal "Best Review-Article 2011")

8. **Becher MU**, Endtmann C, Tiyerili V, Nickenig G, Werner N (2011). Endothelial Damage and Regeneration: The Role of the Renin-Angiotensin-Aldosterone-System. *Curr Hypertens Rep*. 2011. 13(1):86-92. PMID: 21108024. IF: 3.902
9. **Becher MU**, Nickenig G, Werner N (2010). Interaktion von endothelialen Progenitorzellen und inflammatorischen Zellen - Bedeutung für die Endothelzellregeneration. 76. Jahrestagung der Deutschen Gesellschaft für Kardiologie. *MedReport* 2010. 09, 34. Jahrgang Berlin
10. **Becher MU**, Nickenig G, Werner N (2010). Regeneration of the vascular compartment. *Herz* 2010. 35(5):342-51. PMID: 20842474. IF: 0.912

Fallberichte

1. Kozlov A, Mybes C, Falk N, Schulze-Hagen MF, Schlecker S, **Becher MU**. Abdominal pain and severely impaired consciousness in a 19-year-old female patient. *Inn Med (Heidelb)*. 2025 Jul 16. German. doi: 10.1007/s00108-025-01939-9. PMID: 40668375. IF: 0.6
2. Kozlov A, Becher MU, Schlecker S. Hypertriglyceridemic pancreatitis and cardiac tamponade in a 26-year-old woman. *Inn Med (Heidelb)*. 2023 Jan;64(1):88-92. German. doi: 10.1007/s00108-022-01434-5. Epub 2022 Nov 23. PMID: 36418500. IF: 0.6
3. Krogmann AO, Tiyerili V, Nickenig G, **Becher MU** (2019). Myocardial infarction in essential thrombocythemia with excessive coronary artery thrombosis. *J Cardio Case Rep* 2019. (2): 1-2. IF: 0.300
4. Kalkan A, Dabir D, Klingel K, Nickenig G, Werner N, **Becher MU** (2019). Female Somalian patient with heart failure diagnosed with tropical endomyocardial brosis: A Case Report. *J Cardio Case Rep* 2019. (2): 1-3. IF: 0.300
5. Storm KA, Hammerstingl C, Nickenig G, **Becher MU**, Tiyerili V (2013). A 39-year-old woman with silent endocarditis of a caged-ball mitral valve. *Eur Heart J Cardiovasc Imaging* 2013. PMID: 23729756. IF: 3.669
6. **Becher MU** (2013). Thromben auf einem Septumokkluder bei Z.n. ASD Typ 2 Verschluss und Vorhofseptumaneurysma einer 40-ährigen Patientin mit Myelodysplastischem Syndrom und heterozygoter Faktor-V-Leiden-Mutation. *Cardionews* 2013. Ausgabe 05. IF: 0.000
7. **Becher MU**, Hammerstingl C (2011). Mitralklappencleft und atrio-ventrikulärer Septumdefekt im 3D-TEE. *Cardionews* 2011. Ausgabe 10. IF: 0.000
8. **Becher MU**, Hammerstingl C (2012). 3D-TEE zur anatomischen Rekonstruktion der Mitralklappe mit gestieltem Thrombus im linken Vorhofohr. *Cardionews* 2012. Ausgabe 09. IF: 0.000
9. **Becher MU**, Hammerstingl C (2011). Hochgradig dilatierter Sinus coronarius bei persistierner oberer Hohlvene. *Cardionews* 2011. Ausgabe 11/12. IF: 0.000

10. Tiyerili V*, **Becher MU***, Strach K, Mueller CF, Nickenig G, Schwab JO (2010). Unclear acute respiratory failure in a 64-year-old woman after coronary intervention. Dtsch Med. Wochenschr 2010. 135(45):2235-2238. PMID: 21046530. IF: 0.550
11. **Becher MU**, Kaminski M, Grohe C, Pabst S, Juergens UR, Wilhelm K, Ahmadzadehfar H, Majores M, Buttner R, Nickenig G, Skowasch D (2010). Unilateral wheezes as the first clinical sign of a bronchial carcinoid. Dtsch Med Wochenschr 135:390-393; PMID: 20180163. IF: 0.550. BDI-aktuell Zeitung, Berufsverband dt. Internisten 2010. Onkologie Aktuell, Tumor Diagnostik & Therapie 2010

Buchbeiträge

1. **Becher MU** et al. (2023, 2., aktualisierte Auflage) Therapie-Handbuch Kardiologie Kapitell 2, Kardiologisches Risikofaktormanagement. ISBN 978-3-437-21003-7
2. **Becher MU** et al. (2023, 2., aktualisierte Auflage). Therapiehandbuch Kardiologie, Kapitell 16, Angeborenen Herzfehlern. ISBN 978-3-437-21003-7
3. **Becher MU** et al. (2020). Therapie-Handbuch Innere Medizin & Kardiologie Kapitell Risikofaktor-Management. ISBN 978-3-437-23834-5
4. **Becher MU** et al. (2020). Therapiehandbuch Innere Medizin & Kardiologie, Kapitell Erwachsene mit angeborenen Herzfehlern, EMAH. ISBN 978-3-437-23834-5
5. **Becher MU** (2020). Studien-Homepage EPCHF-Studie: <https://epchf.de>
6. **Becher MU**, Schwab JO (2011). Hämodynamisches Monitoring Intensivmedizin. Diagnostische und therapeutische Standards Universitätsklinikum Bonn Medizinische Kliniken I, II, III P. Brossart, G. Nickenig, T. Sauerbruch, 6. Auflage 2011
7. Ghanem A, **Becher MU**, Schwab JO (2011). Psychiatrischer Notfall. Diagnostische und therapeutische Standards Universitätsklinikum Bonn Medizinische Kliniken I, II, III P. Brossart, G. Nickenig, T. Sauerbruch, 6. Auflage 2011