

INSTITUT FÜR PROPHYLAXE & EPIDEMIOLOGIE DER KREISLAUFKRANKHEITEN (IPEK)

DIREKTOR: UNIV.-PROF. DR. CHRISTIAN WEBER

ANZAHL DER HAUSHALTFINANZIERTEN WISSENSCHAFTLICHE MITARBEITER: 24

ANZAHL DER HAUSHALTFINANZIERTEN NICHT-WISSENSCHAFTLICHE MITARBEITER: 19

ANZAHL ALLER DRITTMITTELFINANZIERTEN MITARBEITER: 58

DRITTMITTELAUSGABEN (IN €):

	Anzahl Projekte	Ausgaben 2022
DFG	33	3.937.088,90
BMBF, StMWFK	23	1.464.579,31
EU	5	746.609,96
Stiftungen, Industrie und Sonstige	7	380.681,52
Summe begutachtete externe Drittmittel	68	6.528.959,69

	Anzahl Projekte	Ausgaben 2022
Promotionsstipendien	3	10.036
Summe interne Drittmittel	3	10.036

Gesamtsumme verausgabte Drittmittel		6.538.995,69
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PUBLIKATIONEN:

	Anzahl	ungewichteter IF
im WoS gelistete Originalarbeiten	49	596,7
im WoS gelistete Reviews, Editorials	28	418,3
Gesamtsumme	77	1015

FORSCHUNGSSCHWERPUNKTE

- Chemokine und Chemokinrezeptoren bei entzündlicher und atherogener Leukozytenrekrutierung
- Versatile Regulation der Atherosklerose durch microRNAs
- Funktion der Neutrophilen und Ihrer Sekretion in frühen Stadien der Atherosklerose
- Rolle von Chemokinen und Chemokin-ähnliche Funktionen von MIF in der Atherosklerose und Restenose
- Struktur und Funktion der Heterooligomerisierung und Proteoglykanbindung von Chemokinen („Interaktom“)
- Signaltransduktion der Integrinregulation in Leukozyten und der endothelialen Aktivierung durch Zytokine
- Junktionale Adhäsionsmoleküle in der transendothelialen Diapedese und der vaskulären Entzündungsreaktion
- Chemokine und ihre Rezeptoren in der myokardialen Ischämie-Reperfusion und bei Myokardinfarkt
- Rolle von Leukozytensubpopulationen (Monozyten, T Zellen, dendritische Zellen, Mastzellen) in der Atherosklerose
- Regulation der Homöostase und Rekrutierung vaskulärer Vorläuferzellen in der Atherosklerose und nach Infarkt
- Physiologie und Pathophysiologie endothelialer Vorläuferzellen in der Endothelregeneration und Risikobestimmung
- Statine zur Prävention der Endotheldysfunktion und miniaturisierte, eluierende Formgedächtnis- und Polymer-Stents
- Intravitalmikroskopie, 2-Photonmikroskopie und Mechanismen der Plaquestabilisierung
- Transmembranäre Chemokine und proteolytische Spaltung durch ADAM Metalloproteasen
- Rolle des Endocannabinoidsystems in der Atherosklerose und Ischämie/Reperfusion
- Mechanismen von ApoE bei Entzündung, Alzheimer und Atherosklerose
- Neuroimmune Grenzflächen, Innervation und Autoimmunität in der Atherosklerose

PUBLIKATIONEN

Originalarbeiten, Reviews, Editorials - gelistet im Web of Science (WoS)

1. Asare Y, Shnipova M, Zivkovic L, Schlegl C, Tosato F, Aronova A, Brandhofer M, Strohm L, Beaufort N, Malik R, Weber C, Bernhagen J, Dichgans M. IKKbeta binds NLRP3 providing a shortcut to inflammasome activation for rapid immune responses. *Signal Transduct Target Ther.* 2022;7:355. (IF: 38,120)
2. Bazioti V, La Rose AM, Maassen S, Bianchi F, de Boer R, Halmos B, Dabral D, Guilbaud E, Flohr-Svendsen A, Groenen AG, Marmolejo-Garza A, Koster MH, Kloosterhuis NJ, Havinga R, Pranger AT, Langelaar-Makkinje M, de Bruin A, van de Sluis B, Kohan AB, Yvan-Charvet L, van den Bogaart G, Westerterp M. T cell cholesterol efflux suppresses apoptosis and senescence and increases atherosclerosis in middle aged mice. *Nat Commun* 2022; 13(1): 3799 (IF: 16,6)
3. Bernhard SM, Adam L, Atef H, Haberli D, Bramer WM, Minder B, Doring Y, Laine JE, Muka T, Rossler J, Baumgartner I. A systematic review of the safety and efficacy of currently used treatment modalities in the treatment of patients with PIK3CA-related overgrowth spectrum. *J Vasc Surg Venous Lymphat Disord.* 2022;10:527-538 e522. (IF: 4,190)
4. Bozdoglu T, Lee S, Ziegler T, Jurisch V, Maas S, Baehr A, Hinkel R, Hoenig A, Hariharan A, Kim CI, Decker S, Sami H, Koppala T, Oellinger R, Muller OJ, Frank D, Megens R, Nelson P, Weber C, Schnieke A, Sperandio M, Santamaria G, Rad R, Moretti A, Laugwitz KL, Soehnlein O, Ogris M, Kupatt C. Endothelial Retargeting of AAV9 In Vivo. *Adv Sci (Weinh).* 2022;9:e2103867. (IF: 17,521)
5. Brandhofer M, Hoffmann A, Blanchet X, Siminkovitch E, Rohlfing AK, El Bounkari O, Nestele JA, Bild A, Kontos C, Hille K, Rohde V, Frohlich A, Golemi J, Gokce O, Krammer C, Scheiermann P, Tsilimparis N, Sachs N, Kempf WE, Maegdefessel L, Ottil MK, Megens RTA, Ippel H, Koenen RR, Luo J, Engelmann B, Mayo KH, Gawaz M, Kapurniotu A, Weber C, von Hundelshausen P, Bernhagen J. Heterocomplexes between the atypical chemokine MIF and the CXCMotif chemokine CXCL4L1 regulate inflammation and thrombus formation. *Cell Mol Life Sci.* 2022;79:512. (IF: 9,237)
6. Carai P, Papageorgiou AP, Van Linthout S, Deckx S, Velthuis S, Lutgens E, Wijnants E, Tschöpe C, Schmuttermaier C, Kzhyshkowska J, Jones EAV, Heymans S. Stabilin-1 mediates beneficial monocyte recruitment and tolerogenic macrophage programming during CVB3-induced viral myocarditis. *J Mol Cell Cardiol* 2022; 165: 31-39. (IF: 5)
7. Daugherty A, Hegele RA, Lu HS, Mackman N, Rader DJ, Weber C. Web of Science's Citation Median Metrics Overcome the Major Constraints of the Journal Impact Factor. *Arterioscler Thromb Vasc Biol.* 2022;42:367-371. (IF: 10,514)
8. Evans BR, Yerly A, van der Vorst EPC, Baumgartner I, Bernhard SM, Schindewolf M, Doring Y. Inflammatory Mediators in Atherosclerotic Vascular Remodeling. *Front Cardiovasc Med.* 2022;9:868934. (IF: 5,848)
9. Evans PC, Davidson SM, Wojta J, Back M, Bollini S, Brittan M, Catapano AL, Chaudhry B, Cluitmans M, Gneccchi M, Guzik TJ, Hofer I, Madonna R, Monteiro JP, Morawietz H, Osto E, Padro T, Sluimer JC, Tocchetti CG, Van der Heiden K, Vilahur G, Waltenberger J, Weber C. From novel discovery tools and biomarkers to precision medicine-basic cardiovascular science highlights of 2021/22. *Cardiovasc Res.* 2022;118:2754-2767. (IF: 13,081)
10. Farina FM, Santovito D, Weber C. Two-Faced Janus: CCR2-Expressing Macrophages and Their Dual Role in Allograft Rejection of the Transplanted Heart. *Circulation.* 2022;146:639-642. (IF: 39,918)
11. Farina FM, Serio S, Hall IF, Zani S, Cassanmagnago GA, Climent M, Civilini E, Condorelli G, Quintavalle M, Elia L. The epigenetic enzyme DOT1L orchestrates vascular smooth muscle cell-monocyte crosstalk and protects against atherosclerosis via the NF-kappaB pathway. *Eur Heart J.* 2022;43:4562-4576. (IF: 35,855)
12. Faussner A, Deiningger MM, Weber C, Steffens S. Direct addition of poly-lysine or poly-ethylenimine to the medium: A simple alternative to plate pre-coating. *PLoS One.* 2022;17:e0260173. (IF: 3,752)
13. Ferdinandy P, Koller A, Weber C, Wojta J, Waltenberger J. Frontiers in CardioVascular Biomedicine (FCVB) 2022 Budapest is on in person! The excellent programme proves that scientists won against COVID-19. *Cardiovasc Res.* 2022;118:e59-e61. (IF: 13,081)
14. Friess MC, Kritikos I, Schineis P, Medina-Sanchez JD, Gkountidi AO, Vallone A, Sigmund EC, Schwitter C, Vranova M, Matti C, Arasa J, Saygili Demir C, Bovay E, Proulx ST, Tomura M, Rot A, Legler DF, Petrova TV, Halin C. Mechanosensitive ACKR4 scavenges CCR7 chemokines to facilitate T cell de-adhesion and passive transport by flow in inflamed afferent lymphatics. *Cell Rep.* 2022;38:110334. (IF: 9,995)
15. Ganesh N, van der Vorst EPC, Spiesshofer J, He S, Burgmaier M, Findeisen H, Lehrke M, Swirski FK, Marx N, Kahles F. Gut immune cells-A novel therapeutic target for cardiovascular disease? *Front Cardiovasc Med.* 2022;9:943214. (IF: 5,848)
16. Gencer S, Doring Y, Jansen Y, Bayasgalan S, Yan Y, Bianchini M, Cimen I, Muller M, Peters LJF, Megens RTA, von Hundelshausen P, Duchene J, Lemnitzer P, Soehnlein O, Weber C, van der Vorst EPC. Endothelial ACKR3 drives atherosclerosis by promoting immune cell adhesion to vascular endothelium. *Basic Res Cardiol.* 2022;117:30. (IF: 12,416)
17. Georgakis MK, Bernhagen J, Heitman LH, Weber C, Dichgans M. Targeting the CCL2-CCR2 axis for atheroprotection. *Eur Heart J.* 2022;43:1799-1808. (IF: 35,855)
18. Giroud M, Jodeleit H, Prentice KJ, Bartelt A. Adipocyte function and the development of cardiometabolic disease. *J Physiol.* 2022;600:1189-1208. (IF: 6,228)
19. Guillaumat-Prats R, Hering D, Derle A, Rami M, Hardtner C, Santovito D, Rinne P, Bindila L, Hristov M, Pagano S, Vuilleumier N, Schmid S, Janjic A, Enard W, Weber C, Maegdefessel L, Faussner A, Hilgendorf I, Steffens S. GPR55 in B cells limits atherosclerosis development and regulates plasma cell maturation. *Nat Cardiovasc Res.* 2022;1:1056-1071. (IF: 0,500)
20. Habenicht LKL, Wang Z, Zhang X, Li Y, Mogler C, Huspenina JS, Schmid RM, Weber C, Mohanta SK, Ma Z, Yin C. The C1q-ApoE complex: A new hallmark pathology of viral hepatitis and nonalcoholic fatty liver disease. *Front Immunol.* 2022;13:970938. (IF: 8,786)
21. Haghikia A, Zimmermann F, Schumann P, Jasina A, Roessler J, Schmidt D, Heinze P, Kaisler J, Nageswaran V, Aigner A, Ceglarek U, Cineus R, Hegazy AN, van der Vorst EPC, Doring Y, Strauch CM, Nemet I, Tremaroli V, Dwibedi C, Krankel N, Leistner DM, Heimesaat MM, Bereswill S, Rauch G, Seeland U, Soehnlein O, Muller DN, Gold R, Backhed F, Hazen SL, Haghikia A, Landmesser U. Propionate attenuates atherosclerosis by immune-dependent regulation of intestinal cholesterol metabolism. *Eur Heart J.* 2022;43:518-533. (IF: 35,855)
22. Hettwer J, Hinterdobler J, Miritsch B, Deutsch MA, Li X, Mauersberger C, Moggio A, Braster Q, Gram H, Robertson AAB, Cooper MA, Gross O, Krane M,

- Weber C, Koenig W, Soehnlein O, Adamstein NH, Ridker P, Schunkert H, Libby P, Kessler T, Sager HB. Interleukin-1beta suppression dampens inflammatory leucocyte production and uptake in atherosclerosis. *Cardiovasc Res.* 2022;118:2778-2791. (IF: 13,081)
23. Heuschkel MA, Babler A, Heyn J, van der Vorst EPC, Steenman M, Gesper M, Kappel BA, Magne D, Goueffic Y, Kramann R, Jahnen-Dechent W, Marx N, Quillard T, Goettsch C. Distinct role of mitochondrial function and protein kinase C in intimal and medial calcification in vitro. *Front Cardiovasc Med.* 2022;9:959457. (IF: 5,848)
 24. Immler R, Nadolni W, Bertsch A, Morikis V, Rohwedder I, Masgrau-Alsina S, Schroll T, Yevtushenko A, Soehnlein O, Moser M, Gudermann T, Barnea ER, Rehberg M, Simon SI, Zierler S, Pruenster M, Sperandio M. The voltage-gated potassium channel KV1.3 regulates neutrophil recruitment during inflammation. *Cardiovasc Res.* 2022;118:1289-1302. (IF: 13,081)
 25. Kahles F, Rau M, Reugels M, Foldenauer AC, Mertens RW, Arrivas MC, Schroder J, Idel P, Moellmann J, van der Vorst EPC, Marx N, Lehrke M. The gut hormone glucose-dependent insulinotropic polypeptide is downregulated in response to myocardial injury. *Cardiovasc Diabetol.* 2022;21:18. (IF: 8,949)
 26. Kane J, Jansen M, Hendrix S, Bosmans LA, Beckers L, Tiel CV, Gijbels M, Zelcer N, Vries CJ, von Hundelshausen P, Vervloet M, Eringa E, Horrevoets AJ, Royen NV, Lutgens E. Anti-Galectin-2 Antibody Treatment Reduces Atherosclerotic Plaque Size and Alters Macrophage Polarity. *Thromb Haemost.* 2022;122:1047-1057. (IF: 6,681)
 27. Karshovska E, Mohibullah R, Zhu M, Zahedi F, Thomas D, Magkrioti C, Geissler C, Megens RTA, Bianchini M, Nazari-Jahantigh M, Ferreiros N, Aidinis V, Schober A. Endothelial ENPP2 (Ectonucleotide Pyrophosphatase/Phosphodiesterase 2) Increases Atherosclerosis in Female and Male Mice. *Arterioscler Thromb Vasc Biol.* 2022;42:1023-1036. (IF: 10,514)
 28. Kichi ZA, Natarelli L, Sadeghian S, Boroumand MA, Behmanesh M, Weber C. Orphan GPR26 Counteracts Early Phases of Hyperglycemia-Mediated Monocyte Activation and Is Suppressed in Diabetic Patients. *Biomedicines* 2022; 10:7. (IF: 4,7)
 29. Kichi ZA, Sabouri SG. Multiple Airy beam generation by a digital micro mirror device. *Opt Express* 2022; 30(13): 23025-23034 (IF: 3,8)
 30. Kichi ZA, Natarelli L, Sadeghian S, Boroumand MA, Behmanesh M, Weber C. Orphan GPR26 Counteracts Early Phases of Hyperglycemia-Mediated Monocyte Activation and Is Suppressed in Diabetic Patients. *Biomedicines.* 2022;10. (IF: 4,757)
 31. Kleist CJ, Choe CU, Atzler D, Schonhoff M, Boger R, Schwedhelm E, Wicha SG. Population kinetics of homoarginine and optimized supplementation for cardiovascular risk reduction. *Amino Acids.* 2022;54:889-896. (IF: 3,789)
 32. Koenen RR, Weber C. Jam-A Unleashed Incites Thromboinflammatory Coronary Artery Disease. *JACC Basic Transl Sci.* 2022;7:462-464. Pubmed/35663635 (IF: 9,531)
 33. Kotschi S, Jung A, Willemsen N, Ofoghi A, Proneth B, Conrad M, Bartelt A. NFE2L1-mediated proteasome function protects from ferroptosis. *Mol Metab.* 2022;57:101436. (IF: 8,568)
 34. Kou JJ, Shi JZ, He YY, Hao JJ, Zhang HY, Luo DM, Song JK, Yan Y, Xie XM, Du GH, Pang XB. Luteolin alleviates cognitive impairment in Alzheimer's disease mouse model via inhibiting endoplasmic reticulum stress-dependent neuroinflammation. *Acta Pharmacol Sin.* 2022;43:840-849. (IF: 7,165)
 35. Leberzammer J, Agten SM, Blanchet X, Duan R, Ippel H, Megens RTA, Schulz C, Aslani M, Duchene J, Doring Y, Jooss NJ, Zhang P, Brandl R, Stark K, Siess W, Jurk K, Heemskerk JWM, Hackeng TM, Mayo KH, Weber C, von Hundelshausen P. Targeting platelet-derived CXCL12 impedes arterial thrombosis. *Blood.* 2022;139:2691-2705. (IF: 25,476)
 36. Lecour S, Du Pre BC, Botker HE, Brundel B, Daiber A, Davidson SM, Ferdinandy P, Girao H, Gollmann-Tepekoylu C, Gyongyosi M, Hausenloy DJ, Madonna R, Marber M, Perrino C, Pesce M, Schulz R, Sluijter JPG, Steffens S, Van Linthout S, Young ME, Van Laake LW. Circadian rhythms in ischaemic heart disease: key aspects for preclinical and translational research: position paper of the ESC working group on cellular biology of the heart. *Cardiovasc Res.* 2022;118:2566-2581. (IF: 13,081)
 37. Lesage A, Marceau F, Gibson C, Loenders B, Katzer W, Ambrosi HD, Saupe J, Faussner A, Pardali E, Knolle J. In vitro pharmacological profile of PHA-022121, a small molecule bradykinin B(2) receptor antagonist in clinical development. *Int Immunopharmacol* 2022; 105: 108523. (IF:5,6)
 38. Lip GYH, Rigby A, Weber C. A Rollercoaster Plunge into 2022. *Thromb Haemost.* 2022;122:1-4. (IF: 6,681)
 39. Liu Y, Shi JZ, Jiang R, Liu SF, He YY, van der Vorst EPC, Weber C, Doring Y, Yan Y. Regulatory T Cell-Related Gene Indicators in Pulmonary Hypertension. *Front Pharmacol.* 2022;13:908783. (IF: 5,988)
 40. Matta L, de Faria CC, De Oliveira DF, Andrade IS, Lima-Junior NC, Gregorio BM, Takiya CM, Ferreira ACF, Nascimento JHM, de Carvalho DP, Bartelt A, Maciel L, Fortunato RS. Exercise Improves Redox Homeostasis and Mitochondrial Function in White Adipose Tissue. *Antioxidants (Basel).* 2022;11. (IF: 7,675)
 41. Mauersberger C, Sager HB, Wobst J, Dang TA, Lambrecht L, Koplev S, Stroth M, Bettaga N, Schlossmann J, Wunder F, Friebe A, Björkegren JLM, Dietz L, Maas SL, van der Vorst EPC, Sandner P, Soehnlein O, Schunkert H, Kessler T. Loss of soluble guanylyl cyclase in platelets contributes to atherosclerotic plaque formation and vascular inflammation. *Nature Cardiovascular Research* 2022; 1(12): 1174-1186. (IF: 9,4)
 42. Mohanta SK, Peng L, Li Y, Lu S, Sun T, Carnevale L, Perrotta M, Ma Z, Forstera B, Stanic K, Zhang C, Zhang X, Szczepaniak P, Bianchini M, Saeed BR, Carnevale R, Hu D, Nosalski R, Pallante F, Beer M, Santovito D, Erturk A, Mettenleiter TC, Klupp BG, Megens RTA, Steffens S, Pelisek J, Eckstein HH, Kleemann R, Habenicht L, Mallat Z, Michel JB, Bernhagen J, Dichgans M, D'Agostino G, Guzik TJ, Olofsson PS, Yin C, Weber C, Lembo G, Carnevale D, Habenicht AJR. Neuroimmune cardiovascular interfaces control atherosclerosis. *Nature.* 2022;605:152-159. (IF: 69,504)
 43. Mohanta SK, Weber C, Yin C, Habenicht AJR. The dawn has come for new therapeutics to treat atherosclerosis: Targeting neuroimmune cardiovascular interfaces in artery brain circuits. *Clin Transl Med.* 2022;12:e1040. (IF: 8,554)
 44. Nagy M, van der Meijden PEJ, Glunz J, Schurgers L, Lutgens E, Ten Cate H, Heitmeier S, Spronk HHM. Integrating Mechanisms in Thrombotic Peripheral Arterial Disease. *Pharmaceuticals (Basel).* 2022;15. (IF: 5,215)
 45. Nardi V, Franchi F, Prasad M, Fatica EM, Alexander MP, Bois MC, Lam J, Singh RJ, Meyer FB, Lanzino G, Xiong Y, Lutgens E, Lerman LO, Lerman A. Uric Acid Expression in Carotid Atherosclerotic Plaque and Serum Uric Acid Are Associated With Cerebrovascular Events. *Hypertension.* 2022;79:1814-1823. (IF: 9,897)
 46. Natarelli L, Weber C. A Non-Canonical Link between Non-Coding RNAs and Cardiovascular Diseases. *Biomedicines.* 2022;10. (IF: 4,757)
 47. Nitz K, Lacy M, Bianchini M, Wichapong K, Kucukgoze IA, Bonfiglio CA, Migheli R, Wu Y, Burger C, Li Y, Forne I, Ammar C, Janjic A, Mohanta S, Duchene J, Heemskerk JWM, Megens RTA, Schwedhelm E, Huveneers S, Lygate CA, Santovito D, Zimmer R, Imhof A, Weber C, Lutgens E, Atzler D. The Amino Acid Homoarginine Inhibits Atherogenesis

- by Modulating T-Cell Function. *Circ Res.* 2022;131:701-712. (IF: 23,213)
48. Ouweneel AB, Reiche ME, Snip OSC, Wever R, van der Wel EJ, Schaftenaar FH, Kauerova S, Lutgens E, Van Eck M, Hoekstra M. Apolipoprotein A1 deficiency in mice primes bone marrow stem cells for T cell lymphopoiesis. *J Cell Sci.* 2022;135. (IF: 5,235)
 49. Pattarabanjird T, Marshall M, Upadhye A, Srikakulap P, Garmey JC, Haider A, Taylor AM, Lutgens E, McNamara CA. B-1b Cells Possess Unique bHLH-Driven P62-Dependent Self-Renewal and Atheroprotection. *Circ Res.* 2022;130:981-993. (IF: 23,213)
 50. Peters LJF, Baaten C, Maas SL, Lu C, Nagy M, Jooss NJ, Bidzhekov K, Santovito D, Moreno-Andres D, Jankowski J, Biessen EAL, Doring Y, Heemskerk JWM, Weber C, Kuijpers MJE, van der Vorst EPC. MicroRNA-26b Attenuates Platelet Adhesion and Aggregation in Mice. *Biomedicines.* 2022;10. (IF: 4,757)
 51. Poelman H, Ippel H, Gurkan B, Boelens R, Vriend G, Veer CV, Lutgens E, Nicolaes GAF. Structural anomalies in a published NMR-derived structure of IRAK-M. *J Mol Graph Model.* 2022;111:108061. (IF: 2,942)
 52. Poels K, Schreurs M, Jansen M, Vugts DJ, Seijkens TTP, van Dongen G, Lutgens E, Beaino W. Immuno-PET Imaging of Atherosclerotic Plaques with [(89)Zr]Zr-Anti-CD40 mAb-Proof of Concept. *Biology (Basel).* 2022;11. (IF: 5,168)
 53. Rot A, Gutjahr JC, Biswas A, Aslani M, Hub E, Thiriot A, von Andrian UH, Megens RTA, Weber C, Duchene J. Murine bone marrow macrophages and human monocytes do not express atypical chemokine receptor 1. *Cell Stem Cell.* 2022;29:1013-1015. (IF: 25,269)
 54. Santovito D, Weber C. Non-canonical features of microRNAs: paradigms emerging from cardiovascular disease. *Nat Rev Cardiol.* 2022;19:620-638. (IF: 49,421)
 55. Sauter M, Sauter RJ, Nording H, Lin C, Olbrich M, Autenrieth S, Gleissner C, Thunemann M, Otero N, Lutgens E, Aherrahrou Z, Wolf D, Zender L, Meuth S, Feil R, Langer HF. Apolipoprotein E derived from CD11c(+) cells ameliorates atherosclerosis. *iScience* 2022; 25(1): 103677. (IF:5,8)
 56. Schober A, Maleki SS, Nazari-Jahantigh M. Regulatory Non-coding RNAs in Atherosclerosis. *Handb Exp Pharmacol.* 2022;270:463-492. (IF: 3,210)
 57. Shah M, He Z, Rauf A, Beikoghli Kalkhoran S, Heiestad CM, Stenslokken KO, Parish CR, Soehnlein O, Arjun S, Davidson SM, Yellon D. Extracellular histones are a target in myocardial ischaemia-perfusion injury. *Cardiovasc Res.* 2022;118:1115-1125. (IF: 13,081)
 58. Soppert J, Frisch J, Wirth J, Hemmers C, Boor P, Kramann R, Vondenhoff S, Moellmann J, Lehrke M, Hohl M, van der Vorst EPC, Werner C, Speer T, Maack C, Marx N, Jankowski J, Roma LP, Noels H. A systematic review and meta-analysis of murine models of uremic cardiomyopathy. *Kidney Int.* 2022;101:256-273. (IF: 18,998)
 59. Steffens S, Nahrendorf M, Madonna R. Immune cells in cardiac homeostasis and disease: emerging insights from novel technologies. *Eur Heart J.* 2022;43:1533-1541. (IF: 35,855)
 60. Sun T, Li Y, Forstera B, Stanic K, Lu S, Steffens S, Yin C, Erturk A, Megens RTA, Weber C, Habenicht A, Mohanta SK. Tissue Clearing Approaches in Atherosclerosis. *Methods Mol Biol.* 2022;2419:747-763. (IF: 1,370)
 61. Tas K, Volta BD, Lindner C, El Bounkari O, Hille K, Tian Y, Puig-Bosch X, Ballmann M, Hornung S, Ortner M, Prem S, Meier L, Rammes G, Haslbeck M, Weber C, Megens RTA, Bernhagen J, Kapurniotu A. Designed peptides as nanomolar cross-amyloid inhibitors acting via supramolecular nanofiber co-assembly. *Nat Commun.* 2022;13:5004. (IF: 17,694)
 62. Tullemans BME, Fernandez DI, Veninga A, Baaten C, Peters LJF, Aarts MJB, Eble JA, Campello E, Spiezia L, Simioni P, van der Vorst EPC, van der Meijden PEJ, Heemskerk JWM, Kuijpers MJE. Tyrosine Kinase Inhibitor Sunitinib Delays Platelet-Induced Coagulation: Additive Effects of Aspirin. *Thromb Haemost.* 2022;122:92-104. (IF: 6,681)
 63. van der Velden J, Asselbergs FW, Bakkers J, Batkai S, Bertrand L, Bezzina CR, Bot I, Brundel B, Carrier L, Chamuleau S, Ciccarelli M, Dawson D, Davidson SM, Dendorfer A, Duncker DJ, Eschenhagen T, Fabritz L, Falcao-Pires I, Ferdinandy P, Giacca M, Girao H, Gollmann-Tepekoylu C, Gyongyosi M, Guzik TJ, Hamdani N, Heymans S, Hilfiker A, Hilfiker-Kleiner D, Hoekstra AG, Hulot JS, Kuster DWD, van Laake LW, Lecour S, Leiner T, Linke WA, Lumens J, Lutgens E, Madonna R, Maegdefessel L, Mayr M, van der Meer P, Passier R, Perbellini F, Perrino C, Pesce M, Priori S, Remme CA, Rosenhahn B, Schotten U, Schulz R, Sipido KR, Sluijter JPG, van Steenbeek F, Steffens S, Terracciano CM, Tocchetti CG, Vlasman P, Yeung KK, Zacchigna S, Zwaagman D, Thum T. Animal models and animal-free innovations for cardiovascular research: current status and routes to be explored. Consensus document of the ESC Working Group on Myocardial Function and the ESC Working Group on Cellular Biology of the Heart. *Cardiovasc Res.* 2022;118:3016-3051. (IF: 13,081)
 64. Van der Vorst EPC, Biessen EAL. Unwrapped and uNCORked: PPAR-gamma repression in atherosclerosis. *Eur Heart J* 2022; 43(7): e32-e34. (IF:39,3)
 65. van der Vorst EPC, Doring Y. How slimming regulatory T cells limit atherosclerosis: Mechanistic insights into T cell lipid metabolism. *Atherosclerosis.* 2022;362:23-25. (IF: 6,847)
 66. van der Vorst EPC, Lecour S. Finding the culprit for the failure of the immune clock as time goes by. *Cardiovasc Res.* 2022;118:e88-e90. (IF: 13,081)
 67. Vos WG, Lutgens E, Seijkens TTP. Statins and immune checkpoint inhibitors: a strategy to improve the efficacy of immunotherapy for cancer? *Journal for Immunotherapy of Cancer* 2022; 10(9). (IF:10,9)
 68. Wang S, Yan Y, Xu WJ, Gong SG, Zhong XJ, An QY, Zhao YL, Liu JM, Wang L, Yuan P, Jiang R. The Role of Glutamine and Glutaminase in Pulmonary Hypertension. *Front Cardiovasc Med.* 2022;9:838657. (IF: 5,848)
 69. Wang Z, Zhang X, Zhang C, Li Y, Lu S, Mohanta S, Weber C, Habenicht A, Yin C. Combined Single-Cell RNA and Single-Cell alpha/beta T Cell Receptor Sequencing of the Arterial Wall in Atherosclerosis. *Methods Mol Biol.* 2022;2419:727-746. (IF: 1,370)
 70. Weber C, Rigby A, Lip GYH. Thrombosis and Haemostasis 2021 Editors' Choice Papers. *Thromb Haemost.* 2022;122:163-170. (IF: 6,681)
 71. Weber E, Richter E, Holze R. o-Toluidine in electrochemistry - an overview. *Journal of Solid State Electrochemistry.* 2022;26:1097-1114. (IF: 2,747)
 72. Willemsen N, Arigoni I, Studencka-Turski M, Kruger E, Bartelt A. Proteasome dysfunction disrupts adipogenesis and induces inflammation via ATF3. *Mol Metab.* 2022;62:101518. (IF: 8,568)
 73. Willemsen N, Kotschi S, Bartelt A. Fire up the pyre: inosine thermogenic signaling for obesity therapy. *Signal Transduct Target Ther.* 2022;7:375. (IF: 38,120)
 74. Wollenhaupt J, Frisch J, Harlacher E, Wong DWL, Jin H, Schulte C, Vondenhoff S, Moellmann J, Klinkhammer BM, Zhang L, Baleanu-Curaj A, Liehn EA, Speer T, Kazakov A, Werner C, van der Vorst EPC, Selejan SR, Hohl M, Bohm M, Kramann R, Biessen EAL, Lehrke M, Marx N, Jankowski J, Maack C, Boor P, Prates Roma L, Noels H. Pro-oxidative priming but maintained cardiac function in a broad spectrum of murine models of chronic kidney disease. *Redox Biol.* 2022;56:102459. (IF: 10,787)

75. Worthmann A, Bartelt A. MALDI MSI for a fresh view on atherosclerotic plaque lipids. *Pflugers Arch.* 2022;474:185-186. **(IF: 4,458)**
76. Zhang X, Wang Z, Zhang C, Li Y, Lu S, Steffens S, Mohanta S, Weber C, Habenicht A, Yin C. Laser Capture Microdissection-Based mRNA Expression Microarrays and Single-Cell RNA Sequencing in Atherosclerosis Research. *Methods Mol Biol.* 2022;2419:715-726. **(IF: 1,370)**
77. Zhang Y, Garcia-Ibanez L, Ulbricht C, Lok LSC, Pike JA, Mueller-Winkler J, Dennison TW, Ferdinand JR, Burnett CJM, Yam-Puc JC, Zhang L, Alfaro RM, Takahama Y, Ohigashi I, Brown G, Kurosaki T, Tybulewicz VLJ, Rot A, Hauser AE, Clatworthy MR, Toellner KM. Recycling of memory B cells between germinal center and lymph node subcapsular sinus supports affinity maturation to antigenic drift. *Nat Commun.* 2022;13:2460. **(IF: 17,694)**