

INSTITUT FÜR PROPHYLAXE & EPIDEMIOLOGIE DER KREISLAUFKRANKHEITEN (IPEK)

DIREKTOR: UNIV.-PROF. DR. CHRISTIAN WEBER

ANZAHL DER HAUSHALTFINANZIERTEN WISSENSCHAFTLICHE MITARBEITER: 21

ANZAHL DER HAUSHALTFINANZIERTEN NICHT-WISSENSCHAFTLICHE MITARBEITER: 17

ANZAHL ALLER DRITTMITTELFINANZIERTEN MITARBEITER: 52

DRITTMITTELAUSGABEN (IN €):

	Anzahl Projekte	Ausgaben 2021
DFG	38	3.935.720
BMBF, StMWFK	23	1.758.667
EU	5	722.843
Stiftungen, Industrie und Sonstige	9	143.563
Summe begutachtete externe Drittmittel	75	6.560.793

	Anzahl Projekte	Ausgaben 2021
FöFoLe	1	2.613
Promotionsstipendien	2	7.861
Summe interne Drittmittel	3	10.474

Gesamtsumme verausgabte Drittmittel		6.571.267
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PUBLIKATIONEN:

	Anzahl	ungewichteter IF
im WoS gelistete Originalarbeiten	59	730,5
im WoS gelistete Reviews, Editorials	41	447,8
Gesamtsumme	100	1178,3

FORSCHUNGSSCHWERPUNKTE

- Chemokine und Chemokinrezeptoren bei entzündlicher und atherogener Leukozytenrekritierung
- 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. Abdel Rahman F, d'Almeida S, Zhang T, Asadi M, Bozoglu T, Bongiovanni D, von Scheidt M, Dietzel S, Schwedhelm E, Hinkel R, Laugwitz KL, Kupatt C, Ziegler T. Sphingosine-1-Phosphate Attenuates Lipopolysaccharide-Induced Pericyte Loss via Activation of Rho-A and MRTF-A. *Thromb Haemost.* 2021;121:341-350. (IF: 5,723)
2. Alexander Y, Osto E, Schmidt-Trucksass A, Shechter M, Trifunovic D, Duncker DJ, Abovans V, Back M, Badimon L, Cosentino F, De Carlo M, Dorobantu M, Harrison DG, Guzik TJ, Hoefer I, Morris PD, Norata GD, Suades R, Taddei S, Vilahur G, Waltenberger J, Weber C, Wilkinson F, Bochaton-Piallat ML, Evans PC. Endothelial Function in Cardiovascular Precision Medicine : A Position Paper on Behalf of the European Society of Cardiology. *Cardiovascular research.* 2021;117:29-42. (IF: 10,787)
3. Barkaway A, Rolas L, Joulia R, Bodkin J, Lenn T, Owen-Woods C, Reglero-Real N, Stein M, Vazquez-Martinez L, Girbl T, Poston RN, Golding M, Saleeb RS, Thiriou A, von Andrian UH, Duchene J, Voisin MB, Bishop CL, Voehringer D, Roers A, Rot A, Lammermann T, Nourshargh S. Age-related changes in the local milieu of inflamed tissues cause aberrant neutrophil trafficking and subsequent remote organ damage. *Immunity.* 2021;54:1494-1510 e1497. (IF: 31,745)
4. Bernlochner I, Klug M, Larasati D, Von Scheidt M, Santovito D, Hristov M, Weber C, Laugwitz KL, Bongiovanni D. Sorting and magnetic-based isolation of reticulated platelets from peripheral blood. *Platelets.* 2021;32:113-119. (IF: 3,862)
5. Bosmans LA, Bosch L, Kusters PJH, Lutgens E, Seijkens TTP. The CD40-CD40L Dyad as Immunotherapeutic Target in Cardiovascular Disease. *J Cardiovasc Transl Res.* 2021;14:13-22. (IF: 4,132)
6. Bosmans LA, Shami A, Atzler D, Weber C, Goncalves I, Lutgens E. Glucocorticoid induced TNF receptor family-related protein (GITR) - A novel driver of atherosclerosis. *Vascul Pharmacol.* 2021;139:106884. (IF: 5,773)
7. Carai P, Papageorgiou AP, Van Linthout S, Deckx S, Velthuis S, Lutgens E, Wijnands E, Tschöpe C, Schmutzmaier 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.* 2021;165:31-39 (IF: 5,000)
8. Chirivi RGS, van Rosmalen JWG, van der Linden M, Euler M, Schmets G, Bogatkevich G, Kambas K, Hahn J, Braster Q, Soehnlein O, Hoffmann MH, Es H, Raats JMH. Therapeutic ACPA inhibits NET formation: a potential therapy for neutrophil-mediated inflammatory diseases. *Cell Mol Immunol.* 2021;18:1528-1544. (IF: 11,530)
9. Chondronikola M, Bartelt A, Vidal-Puig A, Virtanen KA. Editorial: Brown Adipose Tissue: From Heat Production in Rodents to Metabolic Health in Humans. *Front Endocrinol (Lausanne).* 2021;12:739065. (IF: 5,555)
10. Datta-Chaudhuri T, Zanos T, Chang EH, Olofsson PS, Bickel S, Bouton C, Grande D, Rieth L, Aranow C, Bloom O, Mehta AD, Civillico G, Stevens MM, Glowacki E, Bettinger C, Schuettler M, Puleo C, Rennaker R, Mohanta S, Carnevale D, Conde SV, Bonaz B, Chernoff D, Kapa S, Berggren M, Ludwig K, Zanos S, Miller L, Weber D, Yoshor D, Steinman L, Chavan SS, Pavlov VA, Al-Abed Y, Tracey KJ. The Fourth Bioelectronic Medicine Summit "Technology Targeting Molecular Mechanisms": current progress, challenges, and charting the future. *Bioelectron Med.* 2021;7:7. (IF: 0,500)
11. Davidson SM, Padro T, Bollini S, Vilahur G, Duncker DJ, Evans PC, Guzik T, Hoefer IE, Waltenberger J, Wojta J, Weber C. Progress in cardiac research: from rebooting cardiac regeneration to a complete cell atlas of the heart. *Cardiovasc Res.* 2021;117:2161-2174. (IF: 10,787)
12. Dickhout A, Kaczor DM, Heinzmann ACA, Brouns SLN, Heemskerk JWM, van Zandvoort M, Koenen RR. Rapid Internalization and Nuclear Translocation of CCL5 and CXCL4 in Endothelial Cells. *Int J Mol Sci.* 2021;22. (IF: 5,924)
13. Dickhout A, Tullema BME, Heemskerk JWM, Thijssen V, Kuijpers MJE, Koenen RR. Galectin-1 and platelet factor 4 (CXCL4) induce complementary platelet responses in vitro. *PLoS One.* 2021;16:e0244736. (IF: 3,240)
14. Duan R, Goldmann L, Brandl R, Spannagl M, Weber C, Siess W, von Hundelshausen P. Effects of the Btk-Inhibitors Remibrutinib (LOU064) and Rilzabrutinib (PRN1008) With Varying Btk Selectivity Over Tec on Platelet Aggregation and in vitro Bleeding Time. *Front Cardiovasc Med.* 2021;8:749022. (IF: 6,050)
15. Duan R, Goldmann L, Li Y, Weber C, Siess W, von Hundelshausen P. Spontaneous Platelet Aggregation in Blood Is Mediated by FcγRIIA Stimulation of Bruton's Tyrosine Kinase. *Int J Mol Sci.* 2021;23 (IF: 5,924)
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19. Fidler TP, Xue C, Yalcinkaya M, Hardaway B, Abramowicz S, Xiao T, Liu W, Thomas DG, Hajebrahimi MA, Pircher J, Silvestre-Roig C, Kotini AG, Luchsinger LL, Wei Y, Westerterp M, Snoeck HW, Papapetrou EP, Schulz C, Massberg S, Soehnlein O, Ebert B, Levine RL, Reilly MP, Libby P, Wang N, Tall AR. The AIM2 inflammasome exacerbates atherosclerosis in clonal haematopoiesis. *Nature.* 2021;592:296-301. (IF: 49,962)
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31. Hinkel R, Batkai S, Bahr A, Bozoglu T, Straub S, Borchert T, Viereck J, Howe A, Hornaschewitz N, Oberberger L, Jurisch V, Kozlik-Feldmann R, Freudenthal F, Ziegler T, Weber C, Sperandio M, Engelhardt S, Laugwitz KL, Moretti A, Klymiuk N, Thum T, Kupatt C. AntimiR-132 Attenuates Myocardial Hypertrophy in an Animal Model of Percutaneous Aortic Constriction. *J Am Coll Cardiol.* 2021;77:2923-2935. (IF: 24,094)
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