

# INSTITUT FÜR PROPHYLAXE & EPIDEMIOLOGIE DER KREISLAUFKRANKHEITEN (IPEK)

DIREKTOR: UNIV.-PROF. DR. CHRISTIAN WEBER

**ANZAHL DER PLANSTELLEN FÜR WISSENSCHAFTLICHE MITARBEITER: 14**

**ANZAHL DER PLANSTELLEN FÜR NICHT-WISSENSCHAFTLICHE MITARBEITER: 16**

**ANZAHL ALLER DRITTMITTELFINANZIERTEN MITARBEITER: 64**

**DRITTMITTELAUSGABEN (IN €):**

|   | Anzahl Projekte | Ausgaben 2012 laut Verwaltung |
|---|-----------------|-------------------------------|
| DFG   | 16              | 888.383                       |
| BMBF, StMWFK, EU                              | 6               | 751.434                       |
| Stiftungen (Humboldt, Fondation Leducq, etc.) | 10              | 463.391                       |
|   |                 |                               |
| <b>Summe begutachtete externe Drittmittel</b> |                 | <b>2.103.208</b>              |

|  | Anzahl Projekte | Ausgaben 2012 laut Verwaltung |
|--|-----------------|-------------------------------|
| FöFoLe                                     | 10              | 60.217                        |
| Lebmit                                     | 10              | 24.000                        |
| <b>Summe interne Drittmittel</b>           |                 | <b>84.217</b>                 |
| <b>Gesamtsumme verausgabte Drittmittel</b> |                 | <b>2.187.425</b>              |

**PUBLIKATIONEN:**

|   | Anzahl    | ungewichteter IF |
|---|-----------|------------------|
| Im WoS gelistete Originalarbeiten, Reviews, Editorials              | 50        | 265.9            |
| <u>Nicht</u> im WoS gelistete Originalarbeiten, Reviews, Editorials | -         | -                |
| Beiträge in Lehr-/Handbüchern, Monographien                         | 3         | -                |
| <b>Gesamtsumme</b>  | <b>53</b> | <b>265.9</b>     |

## 1. FORSCHUNGSSCHWERPUNKTE

- Chemokine und Chemokinrezeptoren bei entzündlicher und atherogener Leukozytenrekrutierung
- 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

### 3. PUBLIKATIONEN

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

- [1] Bampalis VG, Annette Brantl S, Siess W (2012) Why and how to eliminate spontaneous platelet aggregation in blood measured by multiple electrode aggregometry. *J Thromb Haemost* 10:1710-1714. (Impact 5.044)
- [2] Bidzhekov K, Gan L, Denecke B, Rostalsky A, Hristov M, Koepfel TA, Zerneck A, Weber C (2012) microRNA expression signatures and parallels between monocyte subsets and atherosclerotic plaque in humans. *Thromb Haemost* 107:619-25. (Impact 5.044)
- [3] Blanchet X, Langer M, Weber C, Koenen RR, von Hundelshausen P (2012) Touch of chemokines. *Front Immunol* 3:175.
- [4] Bras G, Bochenska O, Rapala-Kozik M, Guevara-Lora I, Faussner A, Kozik A (2012) Extracellular aspartic protease SAP2 of *Candida albicans* yeast cleaves human kininogens and releases proinflammatory peptides, Met-Lys-bradykinin and des-Arg9-Met-Lys-bradykinin. *Biol Chem* 393:829-39. (Impact 2.965)
- [5] Brauner, C, Johannes C, Ploessl F, Bracher, F, Lorenz RL (2012) Phytosterols reduce cholesterol absorption by inhibition of 27-hydroxycholesterol generation, liver X receptor activation, and expression of the basolateral sterol exporter ATP-binding cassette A1 in Caco-2 enterocytes. *Biochem. J Nutr* 142:981-989. (Impact 3.916)
- [6] Cardilo-Reis L, Schreier SM, Gruber S, Papac-Milicevic N, Weber C, Wagner O, Stangl H, Soehnlein O, Binder CJ (2012) Interleukin-13 protects from atherosclerosis and modulates plaque composition by inducing a regression phenotype in mice. *EMBO Mol Med* 4:1072-86. (Impact 10.333)
- [7] Djafarzadeh R, Sauter M, Notohamiprodjo S, Noessner E, Goyal P, Siess W, Wörmle M, Ribeiro A, Himmelein S, Sitter T, Nelson PJ. (2012) Recombinant GPI-anchored TIMP-1 stimulates growth and migration of peritoneal mesothelial cells. *PLoS One* 7:e33963. (Impact 4.092)
- [8] Döring Y, Noels H, Weber C (2012) The use of high-throughput technologies to investigate vascular inflammation and atherosclerosis. *Arterioscler Thromb Vasc Biol* 32:182-95. (Impact 6.368)
- [9] Döring Y, Soehnlein O, Drechsler M, Shagdarsuren E, Chaudhari S, Meiler S, Hartwig H, Hristov M, Koenen RR, Hieronymus T, Zenke M, Weber C, Zerneck A (2012) Hematopoietic interferon regulatory factor 8-deficiency accelerates atherosclerosis in Mice. *Arterioscler Thromb Vasc Biol* 32:1613-23. (Impact 6.368)
- [10] Döring Y, Drechsler M, Wantha S, Kemmerich K, Lievens D, Vijayan S, Gallo RL, Weber C, Soehnlein O (2012) Lack of neutrophil-derived CRAMP reduces atherosclerosis in mice. *Circ Res* 110:1052-6. (Impact 9.489)
- [11] Döring Y, Manthey H, Drechsler M, Lievens D, Manca M, Hartwig H, Busch M, Koenen R, Soehnlein O, Zenke M, Daemen M, Lutgens E, Weber C, Zerneck A (2012) Autoantigenic protein-DNA complexes stimulate plasmacytoid dendritic cells to promote atherosclerosis. *Circulation* 125:1673-83. (Impact 14.739)
- [12] Döring Y, Zerneck A (2012) Plasmacytoid dendritic cells in atherosclerosis. *Front Physiol* 3:230.
- [13] Egea V, Zahler S, Rieth N, Neth P, Popp T, Kehe K, Jochum M, Ries C (2012) Tissue inhibitor of metalloproteinase-1 (TIMP-1) regulates mesenchymal stem cells through let-7f microRNA and Wnt/ $\beta$ -catenin signaling. *Proc Natl Acad Sci USA* 109:e309-16. (Impact 9.681)
- [14] Egea V, Schober A, Weber C (2012) Circulating miRNAs: messengers on the move in cardiovascular disease. *Thromb Haemost* 108:590-91. (Impact 5.044)
- [15] Faussner A, Schüssler S, Feierler J, Bermudez M, Pfeifer J, Schnatbaum K, Tradler T, Jochum M, Wolber G, Gibson C (2012) Binding characteristics of [(3) H]-JSM10292: a new cell membrane-permeant non-peptide bradykinin B(2) receptor antagonist. *Br J Pharmacol* 167:839-53. (Impact 4.409)
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- [23] Kanzler I, Liehn EA, Koenen RR, Weber C (2012) Anti-inflammatory therapeutic approaches to reduce acute atherosclerotic complications. *Curr Pharmaceut Biotechnol* 13:37-45. (Impact 2.805)
- [24] Karshovska E, Weber C (2012) Atherosclerosis: cell biology and lipoproteins - New mechanistic links in atherosclerosis: chemokines mediating the effects of lipids, platelets and dendritic cells. *Curr Opin Lipidol* 23:400-1. (Impact 6.086)
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- sclerosis: Treatment and Prevention, edited by C. Weber & O. Söhnlein, Pan Stanford Publishing. ISBN: 978-981-4316-26-2.
- [26] Kolben T, Peröbner I, Fernsebner K, Lechner F, Geissler C, Ruiz-Heinrich L, Capovilla S, Jochum M, Neth P (2012) Dissecting the impact of Frizzled receptors in Wnt/ $\beta$ -catenin signaling of human mesenchymal stem cells. *Biol Chem* 393:1433-47. (Impact 2.965)
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