

**PRAXISRELEVANTE Zytokine, Chemokine  
Cytokins and chemokins relevant to practice**

Laboratory marker **(grün, green)** „silent inflammation“, cold infection, infection chad

|  | IFN-g | TNF-a | IL-1 | ATP | Hista-<br>min | IL-6 | MDA-<br>LDL | Nitro-<br>tyrosin |
|--|-------|-------|------|-----|---------------|------|-------------|-------------------|
| <b>Fatigue / Depression</b><br><u>Zytoskelett</u>  |       |       |      |     |               |      |             |                   |
| <u>Mitochondrial dysfunction</u>   |       |       |      |     |               |      |             |                   |
| Insulinresistenz & Adipositas /<br>Kataboler Knochenstoffwechsel<br>z.B. Parodontitis, Osteoporose |       |       |      |     |               |      |             |                   |
| <b>Arterioskleritis /</b><br><u>Angiopathie</u>  |       |       |      |     |               |      |             |                   |

Müller KE (2013) **Silent Inflammation. Bedeutung bei chronischen Multisystemerkrankungen.**  
[http://www.inflammatio.de/fileadmin/user\\_upload/inflammatio/Online\\_Fortbildungen/Vortraege\\_2013/2013\\_10\\_30\\_Silent\\_Inflammation.pdf](http://www.inflammatio.de/fileadmin/user_upload/inflammatio/Online_Fortbildungen/Vortraege_2013/2013_10_30_Silent_Inflammation.pdf)

v. Behr V (2015) **Silent Inflammation nicht sichtbar aber spürbar.**  
[http://www.inflammatio.de/fileadmin/user\\_upload/inflammatio/Online\\_Fortbildungen/2015/2015\\_01\\_28\\_Silent\\_Inflammation\\_nicht\\_sichtbar\\_aber\\_spuerbar.pdf](http://www.inflammatio.de/fileadmin/user_upload/inflammatio/Online_Fortbildungen/2015/2015_01_28_Silent_Inflammation_nicht_sichtbar_aber_spuerbar.pdf)

➔ **Das Inflammasom** <http://www.erlebnishaft.de/inflammasom.pdf>

**Methoden der Entzündungshemmung, Methods of inhibition of inflammation:**

1. **Elimination des Entzündungsreizes Elimination of the inflammatory stimulus**  
(leaky gut, Herdgeschehen, chronisch aktivierte Infektion, Phenothiazine, Mitochondrien Dysfunktion)
  2. **Hemmung der, inhibition of NFKappa B in Makrophagen, macrophages** (Kortikoide, sehr niedrig dosiert, corticoids low dosed, Vitamin D3, Boswellia, evtl. Hyperthermie)
  3. **Modulation der Toll like Rezeptoren** (Resveratrol, Curcumin, S-Adenylmethionin, Vitamin D3, SAM, evtl. Statine)
- ➔ **Pflanzliche Antimikrobiotika und antientzündlich wirkende Substanzen,**  
➔ **Herbal Antimicrobials and anti-inflammation-inducing substances:**  
<http://www.kabilahsystems.de/pflanzlicheantimikrobiotika.pdf>  
<http://www.kabilahsystems.de/pfefferchilligelbwurz.pdf>  
<http://www.kabilahsystems.de/paupereia.pdf> <http://www.xerlebnishaft.de/kraeutertherapie.pdf>  
Prednisolon, Boscari (afrikanischer Weihrauch), Boswellia (indischer Weihrauch), Cefatec 480 (Teufelskralle), Cilantis (Koriander), Coenzym Q10, L-Carnitin, Methyl-Sulfonyl-Methan, Quercetin, Resveratrol, Samento (Katzenkralle), Silymarin (Mariendiestel), S-Adenosylmethionin.
- ➔ Pall ML (2010) **Teufelskreis NO/ONOO--Zyklus, oxidativer Stress, mitochondriale, inflammatorische und neurologische Dysfunktion.** [www.umg-verlag.de/umwelt-medizin-gesellschaft/410\\_pall.pdf](http://www.umg-verlag.de/umwelt-medizin-gesellschaft/410_pall.pdf)
- ➔ **Immunsuppression nur bei Entzündungs - Katastrophen,**  
➔ **immunosuppression when inflammatory - disasters occur only**  
<http://www.xerlebnishaft.de/immunsuppression.pdf>

Auron PE, Webb AC, Rosenwasser LJ et al. (1984) Nucleotide sequence of human monocyte interleukin 1 precursor cDNA. [PNAS](#), Band 81 (24), 7907–7911, [Zusammenfassung](#)

Jones SA et al. (1999) [C-reactive Protein: A Physiological Activator of Interleukin-6 Receptor Shedding](#). [J Exp Med](#) 189, 599-604.

Niwa Y, Akamatsu H, Niwa H, Sumi H, Ozaki Y, Abe A. (2001) Correlation of tissue and plasma **RANTES levels** with disease course in patients with breast or cervical cancer. [Clin Cancer Res](#). 7(2), 285–9. <http://www.ncbi.nlm.nih.gov/pubmed/11234881>

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**«However, this traditional view of the relationship between inflammation and morbidity/mortality in physically ill patients is challenged by the new hypothesis, set out in this Review, that depression can actually be caused by inflammation in vulnerable patients»**

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<https://www.g-ba.de/informationen/beschluesse/1050/>

## Anti-Zytokine, anti-cytokins, Anti-Chemokine, anti-chemokins

### 1. ANTIOXYDANTIEN

N-Acetylcystein  
Alphaliponsäure

Gosset P, et al. Eur Respir J. (1999) 14, 98-105  
Suzuki YJ, et al. Bioch.Bioph.Res.Com.1992;189:1709-15

### 2. ERNÄHRUNGS - ZUSATZSTOFFE

Joghurt  
Omega 3 Fettsäuren  
Fischöl

[HA CL, et al. J.Food Prot 1999; 62:181-8](#)  
Venkatraman JT, Chu WC. J Am Coll Nutr 1999;18:602-13  
James MJ, et al. AmJ.Clin. Nutr 2000;71(1Suppl.):343-8

### 3. NICHTSTEROIDALE ANTIRHEUM.

Acetylsalicylsäure  
Ibuprofen  
Diclofenac

Yin Z et al. <https://www.ncbi.nlm.nih.gov/pubmed/24631121>  
Shi X, et al. Mol Cell Bioch.1999;199:93-102  
[Stuhlmeier KM, et al.Biochem Pharmacol 199 1;57:313-20](#)  
[Henrotin YE, et al. Clin Exp Rheumatol 1999;17:151-60](#)

### 4. ANTIBIOTIKA

Clarithromycin  
Roxithromycin  
  
Doxycyclin  
Minocyclin

[Matsuoka N, et al. Clin Exp Immunol 1996;104:501-8](#)  
[Nonaka M, et al. Acta Otolaryngol Suppl 1998; 539:71-5](#)  
  
<http://www.journals.uchicago.edu/doi/abs/10.1086/597807>  
<http://www.journals.uchicago.edu/doi/abs/10.1086/597807>

### 5. ANDERE ARZNEIMITTEL

ACE - Hemmer  
Olmesartan  
  
Calciumantagonisten  
  
HMG-CoA-Hemmer ( [CSE-Hemmer](#) )  
  
Vitamin C  
Vitamin B12  
Vitamin D ( in physiologischen Mengen ! )  
Pentoxiphyllin  
Inosine  
Progesteron ( in physiologischen Mengen ! )  
  
Östrogene ( in physiologischen Mengen ! )  
L-Thyroxin ( in physiologischen Mengen ! )

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Vlahopoulos S, et.al. Blood 1999;94:1878-89  
[Buccellato FR et al. FASEB J 1999;13:297-304](#)

Harant H et al. Eur J Bioch. 1997 15;250:63-71

Neuner P et al.Immunology 1994;83:262-7

Hasko G, et al. J Immunol 2000;164:1013-9

Vassiliadou N et al. J Immunol 1999;15;162:7510-8

Inandera H et al. Endocrinology 2000;141:50-9

Ritterhouse PA et al. Endocrinology 1997;138:1434-9

[Saitoh\\_O.et.al.Gastro.Hepatol.1998;13: 1212-17](#)

Bessler H et al. Biomed Pharmacother 1999;53:141-5

Yengsirgul A et al.Ann Aller. Asthma Immu.1999;83:559-66

Grimm C. et al. Ann N Y Acad Sci 1998 1;840:9-20

Cartwright M.,T.S.Donta Meet.o.the Am.Soc.o.Biolog.1999

[Periscope-Studie 2008 Proactive-Studie 2007](#)

Rau R., Arzneimitteltherapie 2004 7:203

### 6. PFLANZENEXTRAKTE

Quinine (Chinin)  
Quercetin (Eichenrindenextrakt)  
Ginkgo biloba  
Silymarin (Mariendistel)  
Boswelia

Maruyama N, et al. AmJ RespirCell Mol Biol 1994;10:514-20  
Ishikawa Y, et al. J Am Soc Nephrol 1999;10:2290-6

[Wei Z et al. Gen Pharmakol 1999;33:369-75](#)

[Saliou C et al. FEBS Lett 1998 27;440:8-12](#)

<http://www.kabilahsystems.de/pflanzlicheantimikrobiotika.pdf>

[Licastro F](#), Chiappelli M, Ianni M, Porcellini E (2009) **Tumor necrosis factor-alpha antagonists: differential clinical effects by different biotechnical molecules.** *Int J Immunopathol Pharmacol*, 22(3), 67-72. <http://www.ncbi.nlm.nih.gov/pubmed/19822073>

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[Ridker PM](#), [Thuren T](#), [Zalewski A](#), [Libby P](#) (2011) **Interleukin-1 $\beta$  inhibition and the prevention of recurrent cardiovascular events: rationale and design of the Canakinumab Anti-inflammatory Thrombosis Outcomes Study (CANTOS).** *Am Heart J*. 162(4), 597-605. doi: 10.1016/j.ahj.2011.06.012. Epub 2011 Sep 14. <http://www.ncbi.nlm.nih.gov/pubmed/21982649> <http://www.cvdk.nl/d/381/cantos-studie-remming-van-interleukine-bij-atherotrombose>

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[Yanguas-Casás N](#), [Barreda-Manso MA](#), [Nieto-Sampedro M](#), [Romero-Ramírez L](#) (2014) **Tauroursodeoxycholic acid reduces glial cell activation in an animal model of acute neuroinflammation.** *Journal of Neuroinflammation* 11, 50 <http://www.jneuroinflammation.com/content/11/1/50>

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- ➔ **[Darm - Schutz](http://www.xerlebnishaft.de/gastroent_borr.pdf)** [http://www.xerlebnishaft.de/gastroent\\_borr.pdf](http://www.xerlebnishaft.de/gastroent_borr.pdf)  
Probiotika, probiotics <http://www.kabilahsystems.de/probiotika.pdf>
- ➔ **[Anti - Entzündung, Anti - Koagulation](#)**
- ➔ <http://www.erlebnishaft.de/arthritis.pdf> <http://www.xerlebnishaft.de/angiopathie.pdf>  
<http://www.erlebnishaft.de/kommentalternativ.pdf>  
Fettsäuren, fatty acids <http://www.kabilahsystems.de/ungesaettfets.pdf>  
Polyphenole. polyphenoles <http://www.kabilahsystems.de/polyphenole.pdf>  
Antikoagulation, anticoagulants <http://www.kabilahsystems.de/hyperkoagulation.pdf>
- ➔ **[Immun - Stimulation](#)**
- ➔ <http://www.erlebnishaft.de/symbiogenese.pdf>  
Immunstimulantien, immunostimulants <http://www.kabilahsystems.de/immunsti.pdf>
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Q10 + L-Carnitin [http://www.kabilahsystems.de/q10\\_und\\_l.pdf](http://www.kabilahsystems.de/q10_und_l.pdf)

- ➔ **Schmerz - Linderung**  
Schmerztherapeutika, pain therapeutics <http://www.kabilahsystems.de/schmerz.pdf>
- ➔ **Mitochondrien, mitochondria** <http://www.xerlebnishaft.de/mitochondrien.pdf>
- ➔ **Zytoskelett, zytoskeleton** <http://www.xerlebnishaft.de/zytoskelett.pdf>
- ➔ **Zellwand, cell wall** <http://www.kabilahsystems.de/ungesaettfets.pdf>
- ➔ **Pleomorphie, bacterial pleomorphy** <http://www.erlebnishaft.de/stressvar1.pdf>  
<http://www.erlebnishaft.de/stressvar2.pdf>
- ➔ **Biofilme, biofilms** <http://www.erlebnishaft.de/kommentbiofilmmed.pdf>
- ➔ **Größenvergleich Lebensformen, size comparison of life forms**  
<http://www.xerlebnishaft.de/lebensstrukturenvergleich.pdf>
- ➔ **Angiopathie, angiopathy** <http://www.xerlebnishaft.de/angiopathie.pdf>
- ➔ **Krebsstammzelltherapie, cancer stem cell therapy**  
<http://www.xerlebnishaft.de/krebsstammzelltherapie.pdf>
- ➔ **Cavete Diagnosen, cavete diagnoses** <http://www.erlebnishaft.de/kommentalternativ.pdf>

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