

**Alzheimer, Demenz, Parkinson, Hirnatrophie durch Spirochaeten und andere Erreger von Infektionskrankheiten**  
**Alzheimer's disease, dementia, Parkinson's disease, brain atrophy caused by spirochetes and other pathogens of infectious diseases**

Itzhaki R, **Literature 1960 - 2016**

[https://www.research.manchester.ac.uk/portal/en/researchers/ruth-itzhaki/fa70991a-96f8-45c9-8ba0-92a86ceccc84\)/publications.html?page=0](https://www.research.manchester.ac.uk/portal/en/researchers/ruth-itzhaki/fa70991a-96f8-45c9-8ba0-92a86ceccc84)/publications.html?page=0)

**Lapenta J et al. (2018) Lyme Disease and Dementia, Alzheimer, Parkinson, Autism, an Easy Way to Destroy your Brain Invest Demerol and Venereol Res 4(1), 30-43.**

[https://www.ommegaonline.org/article-details/Lyme-disease-and-dementia,-Alzheimer,-Parkinson,-Autism,-an-easy-way-to-destroy-your-brain./1992?fbclid=IwAR0Y3i-H7k\\_-Rc4CYHZH8vTHiPvRm3H\\_50JACRWGoqNI\\_cGhQ3greuEv1Og#.XFT1ZLNxImM.linkedin](https://www.ommegaonline.org/article-details/Lyme-disease-and-dementia,-Alzheimer,-Parkinson,-Autism,-an-easy-way-to-destroy-your-brain./1992?fbclid=IwAR0Y3i-H7k_-Rc4CYHZH8vTHiPvRm3H_50JACRWGoqNI_cGhQ3greuEv1Og#.XFT1ZLNxImM.linkedin)

Corder EH et al. (1993) **Gene dose of apolipoprotein E type 4 allele and the risk of Alzheimer's disease in late onset families.** Science. 261 (5123), 921-923. [PMID 8346443](#)

MacDonald AB (2006) **Alzheimer's & Dementia:** The Journal of the Alzheimer's Association, 2 (3), Supplement, S207, S275, S433.

<http://www.alzheimersanddementia.com/article/S1552-5260%2806%2903848-9/fulltext>

MacDonald AB [Alzheimer Borreliosis](http://alzheimerborreliosis.net/) <http://alzheimerborreliosis.net/presentations/>

**Bu G (2009) Apolipoprotein E and its receptors in Alzheimer's disease: pathways, pathogenesis and therapy.** Nat. Rev. Neurosci. 10(5) 333-344. [PMID 19339974](#)  
[doi:10.1038/nrn2620](https://doi.org/10.1038/nrn2620)

[Miklossy J.](#) (2012) **Chronic or late lyme neuroborreliosis:** analysis of evidence compared to chronic or late **neurosyphilis.** Open Neurol J. 6, 146-57  
<http://www.ncbi.nlm.nih.gov/pubmed/23346260>

Bauer J. (2013) **Alzheimer Forum** <http://www.alzheimerforum.de/4/1/2/psychobiologie.html>

Jucker M (2015) **Alzheimer und Gen-Mutation** <https://www.youtube.com/watch?v=bVqh5XD5A7k>

(2016) **Prion und Alzheimer** <http://www.erlebnishaft.de/prione.pdf>

(2016) **Microbes and Alzheimer's Disease. Editorial.**

<http://content.iospress.com/articles/journal-of-alzheimers-disease/jad160152>

[https://www.google.de/search?q=Microbes+and+Alzheimer%92s+Disease&hl=de&btnG=Google+Search&gws\\_rd=ssl](https://www.google.de/search?q=Microbes+and+Alzheimer%92s+Disease&hl=de&btnG=Google+Search&gws_rd=ssl)

<http://content.iospress.com/download/journal-of-alzheimers-disease/jad160152?id=journal-of-alzheimers-disease%2Fjad160152>

Jucker M (2017) **Fokus Demenz.** <https://www.youtube.com/watch?v=pm2YMa92qJw>

Boxmeyer L. (2017) **Are the Infectious Roots of Alzheimer's Buried Deep in the Past ?** J Mol Path Epidemiol. 3, 2 [www.rense.com/general96/ALZHEIMERS.pdf](http://www.rense.com/general96/ALZHEIMERS.pdf)

Norins LC (2018) **It's Time to Find the "Alzheimer's Germ".** ALZgerm.org

<https://alzgerm.org/whitepaper>

„Dr. Leslie Norins asserts that there is just one germ, known or yet to be discovered, that is the root cause of Alzheimer's. He urges the major funders of research to promptly increase or re-prioritize their grant allotments to thoroughly search for this to jump-start the necessary studies, Alzheimer's Germ Quest, Inc, is offering a \$1 million challenge award for the scientist who—before 2021—provides persuasive proof of the identity and role of the theorized germ. (ALZgerm.org).“

**Alzheimerklassifikation.** Mögliche Profile:

A-T-(N)-: Alle Biomarker im Normbereich – kein Alzheimer

Nur A+: Pathologische Alzheimer-Veränderungen aber noch keine Alzheimererkrankung

A+T+(N)- oder A+T+(N)+: Kriterien der Alzheimererkrankung erfüllt

A+T-(N)+: Alzheimer-Veränderungen (nicht Alzheimerkrankheit) und nicht-spezifische Neurodegeneration

A-T+(N)- oder A-T-(N)+ oder A-T+(N)+: keine Alzheimer-Veränderungen, keine Alzheimerkrankheit, nicht-Alzheimer-Veränderungen

A: A<sub>β</sub> detektiert als Plaques im **PET-Scan** oder als A<sub>β42</sub> bzw. A<sub>β42</sub>/A<sub>β40</sub> Verhältnis im **Liquor**

T: Tau-Pathologie als p-Tau (phosphoryliertes Tau) im **Liquor** oder als parenchymale Neurofibrillen im **PET-Scan**

(N): Zeichen für Neurodegeneration im strukturellen **MRT** oder im **FDG PET** oder als T(otales)-Tau im **Liquor**

**A und T gelten als Alzheimer-spezifisch, (N) nicht.**

Quelle: [Lenzen-Schulte, Martina](#) MEDIZINREPORT Biomarker für Demenz: Alzheimer ab jetzt biologisch definiert. Dtsch Arztebl 2018; 115(22): A-1053 / B-891 / C-887

Jack CR et al. (2018) NIA-AA Research Framework: Toward a biological definition of Alzheimer's disease. Alzheimers Dement. 2018; 14 (4): 535–62 [CrossRef](#) [MEDLINE](#) [PubMed Central](#)

**Basis: Genug Schlaf, Bewegung, soziale Interaktion, gesunde Ernährung, menschliche Wärme**  
**Based are: enough sleep, plenty of exercise, social interaction, healthy diet, human warmth**

[Reitz Chr, Tang M-X, Schupf N et al. \(2010\) A Summary Risk Score for the Prediction of Alzheimer Disease in Elderly Persons. Arch Neurol. 67\(7\), 835-841.](#)

doi:10.1001/archneurol.2010.136. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3068839/>

“Risk factors contributing to the risk score were age, sex, education, ethnicity, APOE ε4 genotype, history of diabetes, hypertension or smoking, high-density lipoprotein levels, and waist to hip ratio. The resulting risk score predicted dementia well”.

[Bredesen DE \(2014\) Reversal of cognitive decline: a novel therapeutic program. Aging \(Albany NY\). 6\(9\), 707-17. http://www.ncbi.nlm.nih.gov/pubmed/25324467](#)

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4221920/>

<https://museslabs.com/wp-content/uploads/2016/03/MEND-Overview.pdf>

**Visual signs and symptoms in patients with the visual variant of Alzheimer disease.**

[https://www.google.de/search?q=visual+signs+and+symptoms+in+patients&hl=de&btnG=Google+Search&qws\\_rd=ssl](https://www.google.de/search?q=visual+signs+and+symptoms+in+patients&hl=de&btnG=Google+Search&qws_rd=ssl)

➔ [„Alzheimer-Peptide“](#)

<https://www.univadis.de/viewarticle/alzheimer-amyloid-bestimmung-aus-blutplasma-per-massenspektroskopie-ist-moeglich-589038>

➔ [ApoE4-Risikoallel](#)

[https://www.mdi-labor.de/leistungsverzeichnis/?tx\\_laboratoryeditor\\_pi1%5Bs\\_uid%5D=151](https://www.mdi-labor.de/leistungsverzeichnis/?tx_laboratoryeditor_pi1%5Bs_uid%5D=151)

**(2006) Borrelieninfektion, Therapieversager, Halbwertszeit von Immunglobulinen und DNA. Borrelia infection, treatment failures, half-life of Immunoglobulins and DNA**

<http://www.erlebnishaft.de/dauerheilung.pdf>

<http://www.dieterhassler.de/fileadmin/PDF/CTJ806.pdf>

„Die maximale Latenzzeit bis zum Auftreten von Krankheitssymptomen betrug acht Jahre.... Daher kann heute als geklärt gelten, dass die Lyme-Borreliose eine primär chronisch verlaufende Infektionskrankheit ist, bei der es in Analogie zur Syphilis keine Spontanheilung gibt. Die These eines „Durchseuchungstiter“ im Sinne einer durchgemachten, spontan überstandenen Infektion konnte nie belegt werden und sollte heute obsolet sein“.  
“The maximum latency to onset of disease symptoms was eight years. The thesis of a "Durchseuchungstiter" in the sense of had taken place spontaneously recovering from infection could never be substantiated and should now be obsolete”.

**[Diagnostic-Therapy-Booklet on Borrelia + Co-Infections for Clinicians & Practitioners](#)**

**Literatur dokumentierte Wirts-Eigenschaften und Infekt - Ursachen bei der Alzheimer Krankheit, Demenz, Parkinson, Hirnatrophie (Prione s.o. zusätzlich)**  
**Literary - documented characteristics of the host and infection causes in Alzheimer's disease, dementia, parkinson´s, brain atrophy (prions see above as well)**

### **Immunosystem**

Abramov E (2009), Turcel C (2009), Iqbal K (2005), Zempel H (2010), McDonald (2015), Abbot (2016) DiBiagio JR (2016), Haas C (2016), Zang J (2017), Girolamo F (2017), Bredesen DE (2017), Vojdani A (2018), Moir (2018) [Mice lacking functional B and T cells](#): Späni C (2015)  
[Transgenic Mice](#): Jucker M (2015, 2017)

### **Neuroglia**

Soreq L et al. (2017) **Major shifts in glial regional identity are a transcriptional hallmark of human brain aging**. Cell Reports. 18(2), p557–570, DOI: 10.1016/j.celrep.2016.12.011  
[http://www.cell.com/cell-reports/abstract/S2211-1247\(16\)31684-9](http://www.cell.com/cell-reports/abstract/S2211-1247(16)31684-9)  
[http://www.cell.com/cell-reports/pdf/S2211-1247\(16\)31684-9.pdf](http://www.cell.com/cell-reports/pdf/S2211-1247(16)31684-9.pdf)

### **Viruses**

[Virus triggers chronic infections and the so called autoimmune diseases](#)  
[Immunsuppressive Virusarten, Bakterien und Protozoen](#) [Virus, Bakterium + Immunsystem](#)

Itzahaki R, Literature 1960 - 2016

#### **Herpes simplex virus Type 1 (HSV1)**

Wisniewsky HM (1978), Lord MA (1980), Saldanha J (1986, 2012), Smith TA (1989), Jamieson GA (1991) Stanley LC (1994), Izaki (1997), Beffert U (1998) Itzhaki RF (1997, 2008, 2014, 2016, 2018) Hemling N (2003) Wozniak MA (2007, 2009, 2011) Zambrano A (2008), Letenneur L (2008) De Chiara G (2010) Cheng SB (2011), Lerchundi R (2011) Bearer EL (2013), Carter CJ (2013), Ball MJ (2013) Lövheim H (2014), Mancuso R (2014), Martin C0 (2014) Bourgade K (2015, 2016), Civitelli L (2015), Gillet L (2015), Piacentini R (2015), Lövheim H (2 x 2015), Harris SA (2015), Nian-Sheng Tzeng (2018), Readhead B (2018)

#### **HIV Virus**

Esiri MM (1998) Smith DB (2014)

### **Bacteria and misfolded proteins**

[Borrelien Behandlung mit Antibiotika bei Menschen Lyme disease treatment with antibiotics in humans](#)

#### **Borrelia, oral treponemata**

MacDonald AB (1986, 1987, 1988, 4 x 2006, 2007, 2008, 2016), Pappolla MA (1989), Miklossy J (1990, 1993, 1994, 1998, 2004, 3 x 2006, 3 x 2008, 2011, 2012, 2013, 2014, 2015, 2016), Riviere GR (1991), Waniek C (1995), Balin (1998), Riviere GR (2002) Green DA (2005) Meer-Scherrer L (2006) Blanc F (2014), Maheshwari P (2014), Blanc F (2014), Fischer O (2015), Allen HB (2016, 2018), Zahn (2016), Ide (2016), Chen CK (2016), Bastian (2017), Alonso R (2018), Allen HB (2018)

#### [Chlamydia, Chlamydophila, CPN](#)

#### **Chlamydia pneumoniae**

Balin BJ (1998, 2008) Little CS (2004) Boelen E (2007) Maheshwari P, (2014, 2015)

#### **Propionibacterium acnes**

Kornhuber HH (1996)

#### **Helicobacter pylori**

Kountouras J (2006)

#### **Porphyromonas gingivalis**

Dominy SS (2019)

### **Mycoses, fungi**

Pisa D (2013, 2015, 2017) Alonso R (2 x 2014, 2017, 2018), AlzForum (2015)

### **Nematoda**

McDonald A (2016)

### **Air pollution, Nanoparticles**

Kirschvink JL (1992) Pankhurst Q (2008) Moulton PV (2012) Teller S (2015) Chau-Ren Jung (2015)

### **Toxins**

### **Leitlinie Demenz, guideline dementia**

<http://www.dgn.org/leitlinien/3176-leitlinie-diagnose-und-therapie-von-demenzen-2016>

Kratz T (2017) **Diagnostik und Therapie von Verhaltensstörungen bei Demenz**. Deutsches Ärzteblatt 114(26), 447-454

<https://www.aerzteblatt.de/archiv/191886/Diagnostik-und-Therapie-von-Verhaltensstoerungen-bei-Demenz>

### **Possibilities for early detection**

Coffman B (2017) **Detecting Alzheimer's disease earlier using ... Greebles?** University of Louisville.

<http://uoflnews.com/releases/detecting-alzheimers-disease-earlier-using-greebles/>

Mason, E et al. (2017) **Family History of Alzheimer's Disease is Associated with Impaired Perceptual Discrimination of Novel Objects**. *Journal of Alzheimer's Disease*, 57(3), 735-745 DOI: 10.3233/JAD-160772 <http://content.iospress.com/articles/journal-of-alzheimers-disease/jad160772>

Nakamura A et al. (2018) **High performance plasma amyloid- $\beta$  biomarkers for Alzheimer's disease**. *Nature*. 554(7691), 249-254. doi: [10.1038/nature25456](https://doi.org/10.1038/nature25456).

[https://www.google.de/search?q=High+performance+plasma+amyloid-](https://www.google.de/search?q=High+performance+plasma+amyloid-%26%23946%3B+biomarkers+for+Alzheimer%27s+disease&hl=de&btnG=Google+Search&qws_rd=ssl)

[https://www.univadis.de/viewarticle/alzheimer-amyloid-bestimmung-aus-blutplasma-per-massenspektroskopie-ist-](https://www.univadis.de/viewarticle/alzheimer-amyloid-bestimmung-aus-blutplasma-per-massenspektroskopie-ist-moeglich-589038)

[moeglich-589038](https://www.univadis.de/viewarticle/alzheimer-amyloid-bestimmung-aus-blutplasma-per-massenspektroskopie-ist-moeglich-589038)

**„Die Bestimmung charakteristischer „Alzheimer-Peptide“ per Massenspektroskopie aus dem Blutplasma ist ähnlich zuverlässig wie die PET-Bildgebung oder eine Lumbalpunktion.**

**The determination of characteristic "Alzheimer's peptides" by mass spectroscopy from the blood plasma is as reliable as the PET imaging or a lumbar puncture.“**

**Alzheimer A (1906) Über eine eigenartige Erkrankung der Hirnrinde.** Vortrag in der Versammlung Südwestdeutscher Irrenärzte in Tübingen am 3. November 1906. *Allgemeine Zeitschrift für Psychiatrie und psychisch-gerichtliche Medizin* 64.

Fischer O (1910) Die presbyophrone demenz, deren anatomische grundlage und klinische abgrenzung. *Z Gesamte Neurol Psychiatr* 3, 371–471.

**Alzheimer A. (1911) Über eigenartige Krankheitsfälle des späteren Alters.** *Zeitschr f die ges Psychiatr u Neurol* 4, 356-385

Bannwarth, A. (1944) **Zur Klinik und Pathogenese der chronischen lymphocytären Meningitis.** *Arch. Psychiatr.Nervenkr.* 117, 161-185.

Wisniewsky HM (1978) **Possible viral etiology** of neurofibrillary changes and neuritic plaques. In *Alzheimer's Disease: Senile Dementia and Related Disorders (Aging, Vol 7)*, Katzman R, Terry RD, Bick KL, eds. Raven Press, New York, pp. 555-557.

Lord MA, [Itzhaki RF](#), Sutton RN (1980) [Detection of virus genome in human tissues](#). *The Lancet*. 2(8185), 92

Khachaturian ZS (1985) Diagnosis of Alzheimer's disease. *Arch Neurol* 42, 1097–1105.

MacDonald, A. B. (1986) **Borrelia** in the brains of patients dying with **dementia**. *J. Am. Med. Assoc.* 256, 2195-2196.

Saldanha J, Sutton RN, Gannicliffe A et al. (1986) Detection of **HSV1 DNA** by in situ hybridisation in human brain after immunosuppression. *J Neurol Neurosurg Psychiatry* 49, 613–619.

MacDonald AB, Miranda JM (1987) Concurrent neocortical **borreliosis and Alzheimer's disease**. *Hum Pathol* 18(7), 759-61. [Abstract](#)

MacDonald AB (1988) [Concurrent Neocortical Borreliosis and Alzheimer's Disease: Demonstration of a Spirochetal Cyst Form](#). *Annals of the New York Academy of Sciences, Lyme Disease and Related Disorders*. 539, 468–470

Pappolla MA, Omar R, Saran B, et al. (1989) Concurrent **neuroborreliosis and Alzheimer's disease**: analysis of the evidence. *Hum Pathol* 20(8), 753-7. [Abstract](#)

Smith TA, Vallis Y, Neary D, [Itzhaki RF](#) (1989) [Characteristics of lymphocyte chromatin from Alzheimer's disease patients and from young and old normal individuals](#). *Gerontology*. 35, 5-6

Miklossy J, Kuntzer T, Bogousslavsky J, Regli F, Janzer RC. (1990) [Meningovascular form of neuroborreliosis](#): Similarities between neuropathological findings in a case of **Lyme disease** and those occurring in tertiary neurosyphilis. *Acta Neuropathol* 80. 568-572.

Jamieson GA, Maitland NJ, Wilcock GK, Craske J, Itzhaki RF (1991) **Latent herpes simplex virus type 1** in normal and Alzheimer's disease brains. *J Med Virol* 33, 224–227.

Braak H, Braak E (1991) Neuropathological staging of Alzheimer-related changes. *Acta Neuropathol (Berl)* 82, 239–259.

Jamieson GA, Maitland NJ, Wilcock GK, Craske J, Itzhaki RF (1991) Latent herpes simplex virus type 1 in normal and Alzheimer's disease brains. *J Med Virol* 33, 224–227.

Riviere GR, Weisz SK, Adams DF, Thomas DD (1991) **Pathogen-related oral spirochetes from dental plaque are invasive**. *Infect Immun* 59, 3377–3380

Miklossy J, Van der Loos H. (1991) **The long distance effects of brain lesions: A study of myelinated pathways in the human brain using polarizing and fluorescence microscopy**. *J Neuropathol Exp Neurol* 50, 1-15.

Mirra SS, Heyman A, McKeel D et al (1991) The Consortium to Establish a Registry for Alzheimer's Disease (CERAD). II. Standardization of the neuropathologic assessment of **Alzheimer's disease**. *Neurology* 41, 479-86. [Abstract/FREE Full Text](#)

Kirschvink JL, Kobayashi-Kirschvink A, Woodford BJ (1992) **Magnetite biomineralization in the human brain**. *Proceedings of the National Academy of Sciences of the United States of America*, 89 (16). pp. 7683-7687. ISSN 0027-8424. <http://resolver.caltech.edu/CaltechAUTHORS:20130211-134215131> <http://web.gps.caltech.edu/~jkirschvink/pdfs/PNASbrainMagnetite.pdf>

Braak H, Braak E, Bohl J (1993) Staging of Alzheimer-related cortical destruction. *Eur Neurol* 33, 403–440.

Mirra SS, Hart MN, Terry RD (1993) Making the diagnosis of Alzheimer's disease. *Arch Pathol Lab Med* 113, 132–144.

Miklossy J (1993) [Alzheimer's disease - A spirochetosis?](#) *Neuroreport* 4(7), 841-8. [Abstract](#)

Miklossy J (1993) **Alzheimer's disease--a spirochetosis?** Neuroreport 4(9), 1069.  
[Full Citation](#)

Braak H, Braak E, Bohl J (1993) Staging of Alzheimer-related cortical destruction. Eur Neurol 33, 403–408.

Miklossy J, Kasas S, Janzer RC, et al. (1994) Further ultrastructural evidence that **spirochaetes may play a role in the aetiology of Alzheimer's disease**. Neuroreport 5(10), 1201-4. [Abstract](#)

Stanley LC, Mrak RE, Woody RC et al. (1994) Glial cytokines as neuropathogenic factors in **HIV infection**: Pathogenic similarities to Alzheimer's disease. J Neuropathol Exp Neurol 53, 231–238.

Baker HF, Ridley RM, Duchen LW, Crow TJ, Bruton CJ (1994) **Induction of beta (A4)-amyloid in primates** by injection of Alzheimer's disease brain homogenate. Comparison with transmission of spongiform encephalopathy. Mol Neurobiol 8, 25–39.

Waniek C, Prohovnik I, Kaufman MA, Dwork AJ. (1995) Rapidly progressive frontal-type dementia associated with **Lyme disease**. J Neuropsychiatry Clin Neurosci. 7(3), 345-7.  
[CrossRef](#)

Itzhaki RF, Lin WR, Shang D, Wilcock GK, Faragher B, Jamieson GA (1997) **Herpes simplex virus type 1** in brain and risk of Alzheimer's disease. Lancet 349, 241–244.

Kornhuber HH (1995) Chronic anaerobic cortical infection in Alzheimer's disease: **Propionibacterium acnes**. Neurol Psych Brain Res 3, 177–182.

Kornhuber HH (1996) **Propionibacterium acnes** in the cortex of patients with Alzheimer's disease. Eur Arch Psychiatry Clin Neurosci 246, 108–109.

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<http://www.ncbi.nlm.nih.gov/pubmed/9749980>

Gutacker M, Valsangiacomo C, Balmelli T, et al (1998) **Arguments against the involvement of Borrelia burgdorferi sensu lato in Alzheimer's disease**. Res Microbiol 149, 31-7.[Medl.Abstract](#)

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[Balin BJ](#), [Gérard HC](#), [Arking EJ](#) et al. (1998) **Identification and localization of Chlamydia pneumoniae in the Alzheimer's brain**. [Med Microbiol Immunol](#). 187(1), 23-42.

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Miklossy J (1998) **Chronic inflammation and amyloidogenesis in Alzheimer's disease: Putative role of bacterial peptidoglycan, a potent inflammatory and amyloidogenic factor**. Alzheimers Rev 3, 45–51.

Miklossy J, Taddei K, Martins R et al. (1999) **Alzheimer disease**: curly fibers and tangles in organs other than brain. J Neuropathol Exp Neurol. 58, 803-814.

McLaughlin R, Kin NM, Chen MF, et al. (1999) **Alzheimer's disease may not be a spirochetosis**. Neuroreport 10(7), 1489-91. [Abstract](#)

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Schenk D et al, (1999) **Immunization with amyloid-b attenuates Alzheimer-disease-like pathology in the PDAPP mouse**. Nature, 400, 173-7.

Marques AR, Weir SC, Fahle GA, et al. (2000) **Lack of evidence of Borrelia involvement in Alzheimer's disease**. J Infect Dis 182(3), 1006-7. [Full Citation](#)

Decoding darkness: [The search for the genetic causes of Alzheimer's disease](http://www.worldcat.org/title/decoding-darkness-the-search-for-the-genetic-causes-of-alzheimers-disease/oclc/45226067) (Book, 2000). <http://www.worldcat.org/title/decoding-darkness-the-search-for-the-genetic-causes-of-alzheimers-disease/oclc/45226067>

Kane MD, Lipinski WJ, Callahan MJ et al. (2000) **Evidence for seeding of beta-amyloid by intracerebral infusion of Alzheimer brain extracts in beta-amyloid precursor protein-transgenic mice**. J Neurosci 20, 3606–3611.

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Janus C et al. (2000) Ab peptide immunization reduces behavioural impairment and plaques in a model of Alzheimer's disease. Nature, 408, 979-82.

Morgan D et al. (2000) Ab peptide vaccination prevents memory loss in an animal model of Alzheimer's disease. Nature, 408, 982-5

Sigurdsson EM et al. (2001) Immunization with a nontoxic/nonfibrillar amyloid-b homologous peptide reduces Alzheimer's disease-associated pathology in transgenic mice, American Journal of Pathology, 159[2], 439-47.

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Zajkowska JM, Hermanowska-Szpakowicz T (2002) New aspects of the pathogenesis of **lyme disease**. Przegl Epidemiol 57-67. [Abstract](#)

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Riviere GR, Riviere KH, Smith KS (2002) **Molecular and immunological evidence of oral Treponema in the human brain and their association with Alzheimer's disease**. Oral Microbiol Immunol 17, 113-118.

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Sunderland T, Linker G, Mirza N, et al. (2003) Decreased beta-amyloid1–42 and increased tau levels in cerebrospinal fluid of patients with Alzheimer disease. *JAMA* 289, 2094–103  
CrossRef [MEDLINE](#)

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[Hakobyan S](#), [Harding K](#), [Aiyaz M](#) et al. (2016) **Complement Biomarkers as Predictors of Disease Progression in Alzheimer's Disease.** *J Alzheimers Dis.* [Epub ahead of print] <http://www.ncbi.nlm.nih.gov/pubmed/27567854>

« *Three analytes (clusterin, factor I, terminal complement complex) were significantly different between MCI individuals who had converted to dementia one year later compared to non-converters; a model combining these three analytes with informative co-variables was highly predictive of conversion. The data confirm the relevance of complement biomarkers in MCI and AD and build the case for using multi-parameter models for disease prediction and stratification.* »

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[Portelius E](#), [Durieu E](#), [Bodin M](#) et al. (2016) **Specific Triazine Herbicides Induce Amyloid- $\beta$ 42 Production.** *J Alzheimers Dis.* <http://www.ncbi.nlm.nih.gov/pubmed/27589520>

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« We review the evidence that iron dysregulation is one of the central causative pathway elements here, as this can cause each of the above effects. In addition, we review the evidence that dormant, non-growing bacteria are a crucial feature of AD, that their growth in vivo is normally limited by a lack of free iron, and that it is this iron dysregulation that is an important factor in their resuscitation. Indeed, bacterial cells can be observed by ultrastructural microscopy in the blood of AD patients. »

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„**Five genera were common to all nine patients: Alternaria, Botrytis, Candida, Cladosporium, and Malassezia. These observations could be used to guide targeted antifungal therapy for AD patients. Moreover, the differences found between the fungal species in each patient may constitute a basis to understand the evolution and severity of clinical symptoms in AD.**“

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« **Chair: AE Barron, R Itzhaki, Discussant:...** - *Innovation in ...*, 2017 - [academic.oup.com](#) **Abstract Alzheimer disease (AD) is one of the most devastating diseases and aging is one of the most important risk factors. For many years huge efforts have been made to better understand the etiopathogenesis of AD. Also, many treatment trials have been performed. At present, we do not what is the exact cause of AD nor how to treat it but we know that neuroinflammation plays an important role, the latter occurring even some 20 years before ...**“ [Zitieren](#) [Speichern](#)

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<https://www.ncbi.nlm.nih.gov/pubmed/28642806>

„**The purpose of this review is to summarize the in vitro and in vivo pre-clinical studies on the use of EGCG in the prevention and the treatment of AD as well as to offer new insights for translational perspectives into clinical practice.**“  
[https://www.ncbi.nlm.nih.gov/pubmed/?linkname=pubmed\\_pubmed&from\\_uid=28642806](https://www.ncbi.nlm.nih.gov/pubmed/?linkname=pubmed_pubmed&from_uid=28642806)



[Pisa D](#), [Alonso R](#), [Fernández-Fernández AM](#) et al. (2017) **Polymicrobial Infections In Brain Tissue From Alzheimer's Disease Patients.** [Sci Rep.](#) 7(1), 5559. doi: 10.1038/s41598-017-05903-y. <https://www.ncbi.nlm.nih.gov/pubmed/28717130>  
«Finally, several structures that could belong to fungi or prokaryotes were detected using peptidoglycan and Clostridium antibodies, and PCR analysis revealed the presence of several bacteria in frozen brain tissue from AD patients. Thus, our results show that polymicrobial infections consisting of fungi and bacteria can be revealed in brain tissue from AD patients. «

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[Carter, Chris J](#) (2017) **Genetic, Transcriptome, Proteomic, and Epidemiological Evidence for Blood-Brain Barrier Disruption and Polymicrobial Brain Invasion as Determinant Factors in Alzheimer's Disease.** DOI: 10.3233/ADR-170017 [Journal of Alzheimer's Disease Reports](#), 1(1) 125-157 <http://content.iospress.com/articles/journal-of-alzheimers-disease-reports/adr170017>  
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«The usage of anti-herpetic medications in the treatment of HSV infections was associated with a decreased risk of dementia. These findings could be a signal to clinicians caring for patients with HSV infections. »

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„A review of two exciting trends in research related to the diagnosis of Alzheimer's are the development of imaging biomarkers that may provide an early and accurate diagnosis, and blood biomarkers that could yield a simple test for the disease. And includes recent findings demonstrating that lifestyle modifications can reduce the risk of developing cognitive symptoms in high-risk older adults.“

Projects [Revisiting the framework of the National Institute on Aging-Alzheimer's Association diagnostic criteria](#)

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<https://www.omicsonline.org/open-access/tertiary-lyme-Disease-2327-5073-1000309.pdf>

„We postulate that our patient with dementia had tertiary Lyme disease because Lyme spirochetes have been cultured from Alzheimer's disease brains and because PCR findings have also confirmed the presence of *Borrelia burgdorferi*. We have shown how the spirochetes are likely responsible for the biofilms in the organs involved; such biofilms are integral to the pathology noted in the disorders in question. We discuss how biofilm dispersers together with bactericidal antibiotics are or are not effective in treatment.“

Readhead B, Haure-Mirande J-V, Funk CC et al. (2018) [Multiscale Analysis of Independent Alzheimer's Cohorts Finds Disruption of Molecular, Genetic, and Clinical Networks by Human Herpesvirus](#). PlumXMetrics.  DOI:

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„Construct multiscale networks of the late-onset Alzheimer's disease (AD)-associated virome and observe pathogenic regulation of molecular, clinical, and neuropathological networks by several common viruses, particularly human herpesvirus 6A and human herpesvirus 7“.

Allen HB, Allawh RM, Goyal K (2018) **A Pathway to Alzheimer's disease**. *Curr Neurobiol* 9(1), 29-32 ISSN 0975-9042 <http://currentneurobiology.org/neurobiology/a-pathway-to-alzheimers-disease.pdf>

“We postulate a pathway to Alzheimer’s disease that begins with microbial pathogens, spirochetes, that make biofilms which upregulate the innate immune system. This leads to the destruction of the tissue and the formation of A $\beta$  by known biochemical and microbiological pathways. The spirochetes also form biofilms intracellularly; and, in the process, create A $\beta$  which stimulates the hyperphosphorylation of tau protein. This ultimately leads to the formation of neurofibrillary tangles and dendritic disintegration. All the steps in this pathway have been shown to be present by direct pathological observation or by known microbiological/biochemical pathways. As one proof of concept, things that negatively impact AD, such as diabetes, smoking, and certain drug exposures have been shown to influence one or another component of the pathway. »

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- ➔ **Genetische Faktoren** [http://www.xerlebnishaft.de/genetische\\_faktoren.pdf](http://www.xerlebnishaft.de/genetische_faktoren.pdf)
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<http://www.xerlebnishaft.de/bildmethyl-arginin.pdf>
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<http://www.xerlebnishaft.de/phytotherapie.pdf>
- Methylenblau, Rember®**  
[http://scholar.google.de/scholar?q=remember+methylene+blue+alzheimer%27s&hl=de&as\\_sd t=0&as\\_vis=1&oi=scholar&sa=X&ei=C1QpU\\_0fz9eyBoHQgLAE&ved=0CDkQgQMwAA](http://scholar.google.de/scholar?q=remember+methylene+blue+alzheimer%27s&hl=de&as_sd t=0&as_vis=1&oi=scholar&sa=X&ei=C1QpU_0fz9eyBoHQgLAE&ved=0CDkQgQMwAA)
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- ➔ **Virusinfektionen** <http://www.erlebnishaft.de/virustriggers.pdf> [Immunsuppressive Virusarten](http://www.erlebnishaft.de/virusbaktimmun.pdf)
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<http://www.kabilahsystems.de/antibioetherapieplan.pdf>
- ➔ **Mitochondrien Dysfunktion** <http://www.xerlebnishaft.de/mitochondrien.pdf>
- ➔ **Zytoskelett-Krankheiten** <http://www.xerlebnishaft.de/zytoskelett.pdf>
- ➔ **Toll-like-receptors** [http://www.erlebnishaft.de/TLR2\\_1\\_3\\_7\\_13.pdf](http://www.erlebnishaft.de/TLR2_1_3_7_13.pdf)
- ➔ **Prione** <http://www.erlebnishaft.de/prione.pdf>
- ➔ **Bakterielle L-Formen, filtrierbare, filterable Bakterienformen (<250 Nanometer)**  
<http://www.erlebnishaft.de/stressvar1.pdf> <http://www.erlebnishaft.de/stressvar2.pdf>
- ➔ **Biofilm und quorum sensing** <http://www.erlebnishaft.de/biofilmmed.pdf>  
<http://www.xerlebnishaft.de/quorum.pdf>
- ➔ **Horizontaler Gentransfer** <http://www.erlebnishaft.de/gentransfer.pdf>
- ➔ **Gen-Dynamik, Gene dynamics** [http://www.xerlebnishaft.de/gen\\_dynamik.pdf](http://www.xerlebnishaft.de/gen_dynamik.pdf)
- ➔ **Symbiogenese** <http://www.erlebnishaft.de/symbiogenese.pdf>
- ➔ **Selbstorganisation** [http://www.erlebnishaft.de/selbst\\_muster\\_nano.pdf](http://www.erlebnishaft.de/selbst_muster_nano.pdf)
- ➔ **Chronic Inflammatory Disorders. Multisystem diseases caused by pathogens**  
[http://www.kabilahsystems.de/ko-erreg\\_eupd1.pdf](http://www.kabilahsystems.de/ko-erreg_eupd1.pdf)
- ➔ **Krebsstammzellen** <http://www.xerlebnishaft.de/krebsstammzelltherapie.pdf>
- ➔ **Archaeae** <http://www.erlebnishaft.de/archaeae.pdf>

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<http://www.neurology.org/content/87/13/1308.full>

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<https://www.ncbi.nlm.nih.gov/pubmed/28602836>

« We concluded that *T. gondii* infection not only could not be a risk factor to PD, but even it could be concluded that patients with PD are in more risk to acquisition of infection. »

## Serologie

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„Die Bestimmung charakteristischer „Alzheimer-Peptide“ per Massenspektroskopie aus dem Blutplasma ist ähnlich zuverlässig wie die PET-Bildgebung oder eine Lumbalpunktion.“

## Bildgebende Diagnostik, Imaging diagnostics

**Prior to any tumor therapy, may be a long term antibiotic treatment should be done. Jeder Tumor-Therapie sollte eventuell doch eine (Langzeit-) Antibiose voraus gehen.**  
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## **Essential, violable, an attempt of self - healing by antibodies and chelation. Essentiell, verletzbar und Selbstheilungsversuch durch Antikörper und Chelate**

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**“The human beta-defensins (hBDs) are a highly conserved family of cationic antimicrobial and immunomodulatory peptides expressed primarily by epithelial cells in response to invasion by bacteria, fungi and some viruses. ... Our findings suggest interplay between hBD-1 and neuroimmunological responses in AD, marked by microglial and astrocytic activation, and increased expression of the peptide within the choroid plexus and accumulation within GVD. As a constitutively expressed component of the innate immune system, we propose that hBD-1 may be of considerable importance early in the disease process.”**

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**““Amyloid” is a generic term and all amyloids, irrespective of amino acid sequence, are formed in a seeded nucleation mechanism in which a small aggregate (oligomers) of a few amyloid moieties (a seed or a nucleus) seed (nucleate) normal amyloid precursor moieties to change conformation to a  $\beta$ -sheet. ... There are several protein misfolding disorders - the most widely known include Alzheimer's disease, Parkinson's disease and other  $\alpha$ -synucleinopathies, amyotrophic lateral sclerosis (ALS), frontotemporal dementias in which abnormally phosphorylated MAP- $\tau$  protein accumulates and finally, polyglutamine expansion diseases such as Huntington's disease and certain spinocerebellar ataxias. The proteins involved differ in each of these disorders but the molecular mechanism is almost exactly the same, a seeding-nucleation mechanism.”**

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➔ Prione <http://www.erlebnishaft.de/prione.pdf>

**Behandle physikalisch (körperliche und geistige Bewegung, ausreichend Schlaf, weniger Stress), probiotisch (Körperpflege, Oralhygiene, Probiotika-Einnahme), bei vitaler Indikation (Entzündungszeichen, Entzündungsmarker) zusätzlich mit Antibiotika, dann aber gezielt, hart und so frühzeitig wie möglich.**

**Treat physically (exercise, sleep, stress reduction), probiotic and in case of vital indication (signs of chronic inflammation disorder) additionally with antibiotics, but then targeted, hard and as early as possible.**

➔ [http://www.kabilahsystems.de/therap\\_02\\_virus.pdf](http://www.kabilahsystems.de/therap_02_virus.pdf) o.a.

➔ [Therapie bei chronischen Multiinfektionskrankheiten durch Krankheitserreger](#)

➔ [Treatment of chronic multi infectious diseases caused by pathogenic agents](#)

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« **No drug available today can prevent or slow the progression of the disease. But three trends in Alzheimer's drug research lead me to believe we are on the cusp of change.**»

Immuntherapie (Antikörper) gegen Amyloid Proteine im Gehirn.

Immunotherapy (antibodies) against amyloid proteins in the brain:

**Solanezumab** <http://www.scinexx.de/wissen-aktuell-20876-2016-11-25.html>

**Aducanumab** <http://www.scinexx.de/wissen-aktuell-20564-2016-09-01.html>

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[Bernt-Dieter Huismans](#), Letzte Revision Februar 2019 [www.Huismans.click](http://www.Huismans.click)



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