

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)

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

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

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>

Jucker M (2017) **Fokus Demenz.** <https://www.youtube.com/watch?v=pm2YMa92gJw>

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

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

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 Alzheimereränderungen aber noch keine Alzheimererkrankung

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

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

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

A: A_β detektiert als Plaques im **PET-Scan** oder als A_{β42} bzw. A_{β42}/A_{β40} 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

(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), DiBiagio JR (2016), Haas C (2016), Zang J (2017), Girolamo F (2017), Bredesen DE (2017), Vojdani A (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](#)

Itzhaki 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 CO (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, Chlamydomphila, CPN](#)

Chlamydia pneumoniae

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

Proprii bacterium acnes

Kornhuber HH (1996)

Helicobacter pylori

Kountouras J (2006)

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

Portelius E (2016), Killin LOJ (2016), Mahler B (2016), Mirza A (2017), Klotz (2017)

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- β 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-%26%23946%3B+biomarkers+for+Alzheimer%27s+disease&hl=de&btnG=Google+Search&gws_rd=ssl

„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, [ltzhaki 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>

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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.

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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](#)

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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](#)

Esiri MM, Biddolph SC, Morris CS (1998) Prevalence of Alzheimer plaques in **AIDS**. *J Neurol Neurosurg Psychiatry* 65, 29–33.

[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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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>

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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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CrossRef [MEDLINE](#)

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<http://www.ncbi.nlm.nih.gov/pubmed/16405513>

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« *Spirochetes evade host defenses, locate intracellularly, form more resistant atypical forms and notably biofilms, which contribute to sustain chronic infection and inflammation and explain the slowly progressive course of dementia in AD. To consider co-infecting microorganisms is equally important, as multi-species biofilms result in a higher resistance to treatments and a more severe dementia.* »

[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>

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[Alonso R](#), [Pisa D](#), [Aguado B](#), [Carrasco L](#) (2017) **Identification of Fungal Species in Brain Tissue from Alzheimer's Disease by Next-Generation Sequencing.** *J Alzheimers Dis.* doi: 10.3233/JAD-170058. [Epub ahead of print] <https://www.ncbi.nlm.nih.gov/pubmed/28387676>
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Maheshwari P, Eslick GD (2017) **Bacterial infection increases the risk of Alzheimer's disease: An evidence-based assessment.** In Handbook of Infection and Alzheimer's Disease, Miklossy J, ed. IOS Press, Amsterdam, in press.

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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](#)

[Cascella M](#), [Bimonte S](#), [Muzio MR](#), [Schiavone V](#), [Cuomo A](#) (2017) **The efficacy of Epigallocatechin-3-gallate (green tea) in the treatment of Alzheimer's disease: an overview of pre-clinical studies and translational perspectives in clinical practice.** *Infect Agent Cancer.* 12, 36. doi: 10.1186/s13027-017-0145-6. eCollection 2017. https://www.researchgate.net/publication/317698412_The_efficacy_of_Epigallocatechin-3-gallate_green_tea_in_the_treatment_of_Alzheimer%27s_disease_An_overview_of_pre-clinical_studies_and_translational_perspectives_in_clinical_practice
<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

[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. «

[Girolamo F](#), [Coppola C](#), [Ribatti D](#) (2017) **Immunoregulatory effect of mast cells influenced by microbes in neurodegenerative diseases.** *Brain Behav Immun.* 65, 68-89. doi: 10.1016/j.bbi.2017.06.017. Epub 2017 Jul 1. <https://www.ncbi.nlm.nih.gov/pubmed/28676349>

Adams JU (2017) **Do Microbes Trigger Alzheimer's Disease?** The once fringe idea is gaining traction among the scientific community. <http://mobile.the-scientist.com/article/50208/do-microbes-trigger-alzheimer-s-disease>

[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](https://doi.org/10.1007/s13311-018-0611-x), 1(1) 125-157 <http://content.iospress.com/articles/journal-of-alzheimers-disease-reports/adr170017>

«AD serum amyloid- β autoantibodies may attenuate its antimicrobial effects favoring microbial survival and cerebral invasion leading to activation of neurodestructive immune/inflammatory processes, which may also be augmented by age-related immunosenescence. AD may thus respond to antibiotic, antifungal, or antiviral therapy. «

Klotz K, Weistenhöfer W, Neff F, Hartwig A, van Thriel C, Drexler H (2017) **The health effects of aluminum exposure.** *Arztebl Int* 114, 653–9. DOI: 10.3238/arztebl.2017.0653 <https://www.aerzteblatt.de/archiv/193510/Gesundheitliche-Auswirkungen-einer-Aluminiumexposition> www.aerzteblatt-international.de

Chen CK, Wu YT, Chang YC (2017) Association between chronic periodontitis and the risk of Alzheimer's disease: a retrospective, population-based, matched-cohort study. *Alzheimers Res Ther.* 9, 56.

Grovesman BR, Orrù ChrD, Hughson AG et al (2018) **Rapid and ultra-sensitive quantitation of disease-associated α -synuclein seeds in brain and cerebrospinal fluid by α Syn RT-QuIC.** *Acta Neuropathologica Communications Neuroscience of Disease* 20186:7 <https://doi.org/10.1186/s40478-018-0508-2>

<https://actaneurocomms.biomedcentral.com/articles/10.1186/s40478-018-0508-2>

«The test was 93 percent accurate at diagnosing Parkinson's and Lewy body dementia, correctly excluded all of the control samples, and turned up test results in two days.«

Nian-Sheng Tzeng, Chi-Hsiang Chung, Fu-Huang Lin et al. (2018) **Anti-herpetic Medications and Reduced Risk of Dementia in Patients with Herpes Simplex Virus Infections—a Nationwide, Population-Based Cohort Study in Taiwan.** *Neurotherapeutics*

pp 1–13 | Cite as DOI <https://doi.org/10.1007/s13311-018-0611-x>

<https://link.springer.com/article/10.1007/s13311-018-0611-x#citeas>

“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. »

[Calderón-Garcidueñas L, González-Maciél A, RafaelReynoso-Robles, R, et al. \(2018\)](https://doi.org/10.1016/j.envres.2018.03.023) **Hallmarks of Alzheimer disease are evolving relentlessly in Metropolitan Mexico City infants, children and young adults. APOE4 carriers have higher suicide risk and higher odds of reaching NFT stage V at \leq 40 years of age.**

<https://doi.org/10.1016/j.envres.2018.03.023>

<https://www.sciencedirect.com/science/article/pii/S0013935118301439?via%3Dihub>

„We recommend the concept of preclinical AD be revised and emphasize the need to define paediatric environmental, nutritional, metabolic and genetic risk factor interactions of paramount importance to prevent AD. AD evolving from childhood is threatening the wellbeing of our children and future generations.“

Nakamura A, Kaneko N, Villemagne VL et al. (2018) [High performance plasma amyloid- \$\beta\$ biomarkers for Alzheimer's disease.](https://doi.org/10.1016/j.envres.2018.03.023) „These plasma biomarkers also have cost-benefit and scalability advantages over current techniques, potentially enabling broader clinical access and efficient population screening. »

Carillo M (2018) **Trends in diagnosing and reducing the risk of Alzheimer's disease.** DOI10.13140/RG.2.2.27207.60327

https://www.researchgate.net/publication/324485269_Trends_in_diagnosing_and_reducing_the_risk_of_Alzheimer%27s_disease

„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](https://www.researchgate.net/publication/324485269_Trends_in_diagnosing_and_reducing_the_risk_of_Alzheimer%27s_disease)

Nabers A et al. (2018) **Amyloid blood biomarker detects Alzheimer's disease.** DOI 10.15252/emmm.201708763 [EMBO Molecular Medicine \(online\) 6. April 2018](#)

[Vojdani, A, Vojdani, E, Saidara, E, Kharrazian, D](#) (2018) **Reaction of Amyloid- β Peptide Antibody with Different Infectious Agents Involved in Alzheimer's Disease.** [Journal of Alzheimer's Disease](#), 63(2), 847-860 DOI: 10.3233/JAD-170961


Alonso R, Pisa D, [Fernández-Fernández AM](#), [Carrasco L](#) (2018) **Infection of Fungi and Bacteria in Brain Tissue From Elderly Persons and Patients With Alzheimer's Disease.** *Front. Aging Neurosci.*, <https://doi.org/10.3389/fnagi.2018.00159>
<https://www.frontiersin.org/articles/10.3389/fnagi.2018.00159/full>

Ford E, Greenslade N, Paudyal P, Bremner S, Smith HE, Banerjee S et al. (2018) **Predicting dementia from primary care records: A systematic review and meta-analysis.** *PLoS ONE* 13(3), e0194735. <https://doi.org/10.1371/journal.pone.0194735>

Allen HB, Allawh RM, Gresham K, Donnelly K, Goyal K (2018) **Tertiary Lyme Disease.** *Clin Microbiol* 7, 309. doi:10.4172/2327-5073.1000309

<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: <https://doi.org/10.1016/j.neuron.2018.05.023> [https://www.cell.com/neuron/fulltext/S0896-6273\(18\)30421-5](https://www.cell.com/neuron/fulltext/S0896-6273(18)30421-5)

“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 β by known biochemical and microbiological pathways. The spirochetes also form biofilms intracellularly; and, in the process, create A β 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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<https://www.frontiersin.org/articles/10.3389/fnagi.2018.00324/full>

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<http://www.gofundme.com/z3v2a2k>
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<http://alzheimerborreliosis.net/research/>
 MacDonald A. (2013) **The Biology of Lyme Disease: An Expert's Perspective**
<http://youtu.be/r8tESJVvM88>
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<https://vimeo.com/140175819>
- ➔ Bransfield RC <http://www.mentalhealthandillness.com/>
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- ➔ Miller A (2017) <https://www.youtube.com/channel/UCD19kTsVBMH-F0BfV3335Ow>
- ➔ **Immunsuppressive Virusarten** <http://www.erlebnishaft.de/immunsuppressivvirus.pdf>
- ➔ **Virus triggers** <http://www.erlebnishaft.de/virus triggers.pdf>
- ➔ **Virus, Bakterium und Immunsystem** <http://www.erlebnishaft.de/virusbaktimmun.pdf>
- ➔ **Biofilm, biofilms** <http://www.erlebnishaft.de/biofilmmed.pdf>
- ➔ **L-Forms, round bodies** <http://www.erlebnishaft.de/stressvar1.pdf>
- ➔ <http://www.erlebnishaft.de/stressvar2.pdf>
- ➔ **Selbstorganisation** http://www.erlebnishaft.de/selbst_muster_nano.pdf
- ➔ **Virulenz Inhibitoren** http://www.kabilahsystems.de/virulenz_inhibitoren.pdf
- ➔ **Genetische Faktoren** http://www.xerlebnishaft.de/genetische_faktoren.pdf
- ➔ **Angiopathie** <http://www.xerlebnishaft.de/angiopathie.pdf>
- ➔ **PH, V-ATPase, Zytoskelett, Neurotoxins** <http://www.kabilahsystems.de/ph.pdf>
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- ➔ **Multiple Sklerose** <http://www.erlebnishaft.de/multipleskleroseborreliose.pdf>
- ➔ **ALS** <http://www.xerlebnishaft.de/als.pdf>
- ➔ **Autismus** http://www.xerlebnishaft.de/autismus_und_lyme.pdf
- ➔ **Schizophrenie** http://www.erlebnishaft.de/psychiatric_patients.pdf
- ➔ **Priones (... ALS?)** <http://www.erlebnishaft.de/prione.pdf>
- ➔ **Immunitaet** http://www.erlebnishaft.de/danger_model.pdf
- ➔ **Methylzyklus** <http://www.erlebnishaft.de/methylierung.pdf>
<http://www.xerlebnishaft.de/bildmethyl-arginin.pdf>
- ➔ **L-Arginin** <http://www.xerlebnishaft.de/bildmethyl-arginin.pdf>
- ➔ **Biogene Amine und Peptide** <http://www.kabilahsystems.de/biogeneamineundpeptide.pdf>
- ➔ **Fettsäuren (Omega 3)** <http://www.kabilahsystems.de/ungesaettfetts.pdf>
- ➔ **Immunsuppression** <http://www.xerlebnishaft.de/immunsuppression.pdf>
- ➔ **Antimikrobiotika** <http://www.kabilahsystems.de/antibiosetherapieplan.pdf>
<http://www.xerlebnishaft.de/antibiosetherapie.pdf>
<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_0fz9eyBoHQgLA&ved=0CDkQgQMwAA
- ➔ **Zahn- und Mundpflege, dental and oral care**
http://www.xerlebnishaft.de/zahn_mundpflege.pdf

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<http://www.ncbi.nlm.nih.gov/pubmed/26037459>
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Doppler K, Jentschke HM et al. (2017) **Dermal phosphor-alpha-synuclein deposits Confirm REM sleep behavior disorder as prodromal Parkinson's disease.** Acta Neuropathologica. DOI: 10.1007/s00401-017-1684-z

[Pisché G](#), [Koob M](#), [Wirth T](#) et al. (2017) **Subacute parkinsonism as a complication of Lyme disease.** [J Neurol.](#) doi: 10.1007/s00415-017-8472-5. [Epub ahead of print]
<https://www.ncbi.nlm.nih.gov/pubmed/28349210>

Differential - Diagnosen: Parkinsonismus en.wikipedia.org/wiki/Parkinsonism

➔ **Virusinfektionen** <http://www.erlebnishaft.de/virustriggers.pdf> [Immunsuppressive Virusarten](http://www.erlebnishaft.de/virusbaktimmun.pdf)
<http://www.erlebnishaft.de/virusbaktimmun.pdf>

➔ **Chlamydien, Chlamydiophila** http://www.kabilahsystems.de/chlamydia_pneumoniae.pdf

➔ **Andere Krankheitserreger** <http://www.xerlebnishaft.de/antibiosetherapie.pdf>
<http://www.kabilahsystems.de/antibiosetherapieplan.pdf>

➔ **Mitochondrien Dysfunktion** <http://www.xerlebnishaft.de/mitochondrien.pdf>

➔ **Zytoskelett-Krankheiten** <http://www.xerlebnishaft.de/zytoskelett.pdf>

➔ **Toll-like-receptors** http://www.erlebnishaft.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
- ➔ **Symbiogenese** <http://www.erlebnishaft.de/symbiogenese.pdf>
- ➔ **Selbstorganisation** http://www.erlebnishaft.de/selbst_muster_nano.pdf
- ➔ **Chronic Inflammatory Disorders. Multisystem diseases caused by pathogens**
http://www.kabilahsystems.de/ko-erreg_eupd1.pdf
- ➔ **Krebsstammzellen** <http://www.xerlebnishaft.de/krebsstammzelltherapie.pdf>
- ➔ **Archaeae** <http://www.erlebnishaft.de/archaeae.pdf>

Vasant MS et al. (2013) **Cellular and molecular mediators of neuroinflammation in the pathogenesis of Parkinson's disease**. Hindawi Pub. Corporation. Mediators of Inflammation.

Kyle B. Fraser, Mark S. Moehle, Roy N. Alcalay, Andrew B. West. (2016) **Urinary LRRK2 phosphorylation predicts parkinsonian phenotypes in G2019SLRRK2carriers**. Neurology, 86 (11), 994 DOI: [10.1212/WNL.0000000000002436](https://doi.org/10.1212/WNL.0000000000002436)

Kyle B. Fraser, Ashlee B. Rawlins, Rachel G. Clark, Roy N. Alcalay, David G. Standaert, Nianjun Liu, Andrew B. West. (2016) **Ser(P)-1292 LRRK2 in urinary exosomes is elevated in idiopathic Parkinson's disease**. Movement Disorders, DOI: [10.1002/mds.26686](https://doi.org/10.1002/mds.26686)

Schneider Williams S (2016) **The terrorist inside my husband's brain**.
doi: <http://dx.doi.org/10.1212/WNL.0000000000003162> Neurology 87(13), 1308-1311
<http://www.neurology.org/content/87/13/1308.full>

[Fallahi S](#), [Rostami A](#), [Birjandi M](#) et al. (2017) **Parkinson's disease and Toxoplasma gondii infection: Sero-molecular assess the possible link among patients**. *Acta Trop.* 173, 97-101. doi: 10.1016/j.actatropica.2017.06.002. [Epub ahead of print]
<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

Nakamura A et al. (2018) **High performance plasma amyloid-β 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-%26%23946%3B+biomarkers+for+Alzheimer%27s+disease&hl=de&btnG=Google+Search&gws_rd=ssl
„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.
<http://www.xerlebnishaft.de/krebsstammzelltherapie.pdf>

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Forsberg A, Engler H, Almkvist O, Blomquist G, Hagman G, Wall A, Ringheim A, Langstrom B, Nordberg A (2008) **PET** imaging of amyloid deposition in patients with mild cognitive impairment. Neurobiology of aging 29, 1456–65.

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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 β -sheet. ... There are several protein misfolding disorders - the most widely known include Alzheimer's disease, Parkinson's disease and other α -synucleinopathies, amyotrophic lateral sclerosis (ALS), frontotemporal

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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 o.a.
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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>

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[Bernt-Dieter Huisman](#), Letzte Revision Oktober 2018 www.Huisman.click



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