

Name of journal: World Journal of Pharmacology

ESPS Manuscript NO: 15353

Columns: Review

Therapeutic targets and delivery challenges for Alzheimer's disease

Preshita Desai, Harshad Shete, Rahul Adnaik, John Disouza, Vandana Patravale

Abstract

Dementia, including Alzheimer's disease, the 21st Century epidemic, is one of the most significant social and health crises which has currently afflicted nearly 44 million patients worldwide and about new 7.7 million cases are reported every year. This portrays the unmet need towards better understanding of Alzheimer's disease pathomechanisms and related research towards more effective treatment strategies. The review thus comprehensively addresses Alzheimer's disease pathophysiology with an insight of underlying multicascade pathway and elaborates possible therapeutic targets- particularly anti-amyloid approaches, anti-tau approaches, acetylcholinesterase inhibitors, glutamatergic system modifiers, immunotherapy, anti-inflammatory targets, antioxidants, HMG-CoA reductase inhibitors and insulin. In spite of extensive research leading to identification of newer targets and potent drugs, complete cure of Alzheimer's disease appears to be an unreachable holy grail. This can be attributed to their ineffective delivery across blood brain barrier and ultimately to the brain. With this understanding, researchers are now focusing on development of drug delivery systems to be delivered via suitable route that can circumvent blood brain barrier effectively with enhanced patient compliance. In this context, we have summarized

Match Overview

1	Internet 163 words crawled on 20-Nov-2014 www.ncbi.nlm.nih.gov	1%
2	Internet 81 words crawled on 07-May-2013 www.mcpgnet.org	<1%
3	Internet 79 words crawled on 02-Apr-2014 jpr.shpa.org.au	<1%
4	Internet 71 words crawled on 21-Nov-2011 ukpmc.ac.uk	<1%
5	Internet 47 words crawled on 27-Mar-2014 www.science.gov	<1%
6	CrossCheck 22 words Ngandu, Tila, Francesca Mangialasche, and Mila Kivipelto. "The Epidemiology and Prevention of Alzheimer's Disease." <i>Journal of Alzheimer's Disease</i> 40 (2015): 1-10.	<1%
7	Publications 21 words Blennow, Kaj de Leon, Mony J, Zetterberg. "Alzheimer's disease. (Seminar)(Disease/Disorder overview)". The Lancet 381 (2013): 510-20.	<1%
8	Internet 21 words crawled on 15-Feb-2015 brain.oxfordjournals.org	<1%
9	CrossCheck 19 words Muhs, A. "01-06-06", Alzheimer's & Dementia: The Journal of the Alzheimer's Association, 200607	<1%
10	Internet 19 words crawled on 27-Mar-2014 www.translationalneurodegeneration.com	<1%

[网页](#)[新闻](#)[图片](#)[视频](#)[更多 ▾](#)[搜索工具](#)

找到约 14,800,000 条结果 (用时 0.61 秒)

Google 学术: Therapeutic targets and delivery challenges for Alzheimer's disease

... of BDNF: a therapeutic target for Alzheimer's disease? - Fumagalli - 被引用次数: 104

... into therapeutic advances in Alzheimer's disease - Selkoe - 被引用次数: 1696

... nerve growth factor gene therapy for Alzheimer disease - Tuszynski - 被引用次数: 711

Challenges Associated with Metal Chelation Therapy in ...

www.ncbi.nlm.nih.gov > ... > PubMed Central (PMC) ▾ [翻译此页](#)

作者: ML Hegde - 2009 - 被引用次数: 58 - 相关文章

Challenges Associated with Metal Chelation Therapy in Alzheimer's Disease ... The most recent developments in metal targeted strategies for AD will be useful in applications for delivery of imaging and therapeutic agents to CNS. Recently ...

Developing New Treatments for Alzheimer's Disease ...

<https://www.nia.nih.gov/alzheimers/...alzheimers-disease.../deve...> ▾ [翻译此页](#)

The prevalence of Alzheimer's disease is expected to rise with the aging of ... drugs for neurological disorders like Alzheimer's is extremely challenging and expensive. It takes 10 to 15 years from the discovery of a new therapeutic target until a ... mouse model of tau disease, but it was difficult to deliver the drug to the brain.

[PDF] Caspases: A Potential Therapeutic Targets in the Treatm...

www.omicsonline.org/caspases-a-potential-therapeutic-targets-l... ▾ [翻译此页](#)

作者: K Jana - 2013 - 被引用次数: 2 - 相关文章

2013年3月29日 - Clinical Studies of Molecular Targeted Therapies ... targeting caspase inhibition with the potential caspase inhibitors and its improved delivery system to the brain in ... Therapeutic Targets in the Treatment of Alzheimer's Disease. solution in neurotherapeutic challenges for neurodegenerative diseases.

[PDF] Enhancing Translational Research and Clinical ...

www.oecd-ilibrary.org/enhancing-translational-research-and-cli... ▾ [翻译此页](#)

research and health innovation for Alzheimer's disease and other dementias.

[网页](#)[图片](#)[新闻](#)[视频](#)[更多 ▾](#)[搜索工具](#)

找到约 577,000 条结果 (用时 0.86 秒)

Google 学术: Therapeutic targets and delivery challenges for Alzheimer's disease

... of BDNF: a therapeutic target for Alzheimer's disease? - Fumagalli - 被引用次数: 105

... into therapeutic advances in Alzheimer's disease - Selkoe - 被引用次数: 1700

... nerve growth factor gene therapy for Alzheimer disease - Tuszynski - 被引用次数: 713

Challenges Associated with Metal Chelation Therapy in ...

www.ncbi.nlm.nih.gov > ... > PubMed Central (PMC) ▾ 翻译此页

作者: ML Hegde - 2009 - 被引用次数: 58 - 相关文章

Challenges Associated with Metal Chelation Therapy in Alzheimer's Disease ... The most recent developments in metal targeted strategies for AD will be useful in applications for delivery of imaging and therapeutic agents to CNS. Recently ...

Developing New Treatments for Alzheimer's Disease ...

<https://www.nia.nih.gov/alzheimers/>... [alzheimers-disease](#).../deve... ▾ 翻译此页

The prevalence of Alzheimer's disease is expected to rise with the aging of ... drugs for neurological disorders like Alzheimer's is extremely challenging and expensive. It takes 10 to 15 years from the discovery of a new therapeutic target until a ... mouse model of tau disease, but it was difficult to deliver the drug to the brain.

[PDF] Nanotechnology Solutions for Alzheimer's Disease ...

https://www.uic.edu/.../08-Nanotechnology_Solutions_for_Alz... ▾ 翻译此页

作者: A Nazem - 2008 - 被引用次数: 44 - 相关文章

delivery. INTRODUCTION. Alzheimer's disease (AD), first defined a century ago [2], is the primary molecular interactions of proteins is a challenging problem in protein