

Robert J Vassar, PhD

Scientific Director of Behavioral Neurology in the Department of Neurology
Davee Professor of Alzheimer Research
Professor of Neurology (Behavioral Neurology) and Cell and Developmental Biology
Feinberg School of Medicine
Northwestern University

Focus of Work

Bio

Our research focuses on molecular and cellular mechanisms of Alzheimer's disease. In particular, we investigate the beta-secretase enzyme BACE1, which initiates the production of the beta-amyloid peptide that plays a central early role in the pathogenesis of Alzheimer's. We use a combination of biochemical, cell culture and animal model approaches to investigate the role of BACE1 in health and disease.

Education

- BS: University of Chicago (1978)
- PhD: University of Chicago (1992)

Postgraduate Training

- Postdoctoral Fellow: Columbia University, Molecular Neuroscience (1996)

Honors and Awards

- Endowed Chair, Davee Professor of Alzheimer Research (2019)
- Co-Director, Mechanisms of Aging and Dementia Training Program (2019)
- Member, Cure Alzheimer's Fund Research Strategy Planning Committee (2018)
- Discussant, 4th, 5th, 6th Annual Zilkha Symposium on Alzheimer's Disease & Related Disorder USC (2017)
- Zenith Fellows Award, Alzheimer's Association (2015)
- Member, Cure Alzheimer's Fund Genes to Therapies Steering Committee (2014)
- Member, DIAN-TU Therapy Evaluation Committee (2013)
- Potamkin Prize for Research in Pick's, Alzheimer's, American Academy of Neurology (2009)
- Outstanding Contributor Award, Alzheimer's Research Forum (2008)
- Award for Medical Research in Alzheimer's Disease, MetLife Foundation (2007)

External Professional Leadership and Service

- Member, Cure Alzheimer's Fund Research Strategy Planning Committee (2018 - Present)
- Ad-Hoc Consulting, Abbott, (2001 - Present)
- Discussant, 6th Annual Zilkha Symposium on Alzheimer Disease & Related Disorders, USC (2019 - 2019)

Editorships / Editorial Board Service

- Editorial Board Member, Alzheimer's & Dementia: Translational Res. & Clinical Interventions (2015 - Present)
- Editorial Board Member, Current Alzheimer Research (2010 - Present)
- Editorial Board Member, Drug Target Insights, Libertas Academica Ltd. (2006 - Present)
- Associate Editor, Molecular Neurodegeneration, BioMed Central (2006 - Present)
- Ad Hoc Reviewer, Acta Neuropathologica (1996 - Present)
- Ad Hoc Reviewer, Alzheimer's Research & Therapy (1996 - Present)
- Ad Hoc Reviewer, American Journal of Pathology (1996 - Present)
- Ad Hoc Reviewer, Bioorganic & Medicinal Chemistry Letters (1996 - Present)

Scientific or Medical Advisory Board Service

- Scientific Advisory Board Member, Institute on Aging and Brain Disorders, U. of Science and Technology of China (2019 - Present)
- Scientific Advisory Board Member, USC PPG (2019 - Present)
- Scientific Advisory Board Member, Cure Alzheimer's Fund (2018 - Present)
- Scientific Advisory Board Chair, Open Philanthropy Alzheimer's disease (2018 - Present)
- Member, University of Illinois / T32 (2017 - Present)
- Scientific Advisory Board Member, Alector, LLC (2015 - Present)
- Research Evaluation Panel Member, University of Eastern Finland, Kuopio, Finland (2019 - 2019)

Professional Society Membership

- Member, The Society for Neuroscience (1996 - Present)
- Member, The American Association for the Advancement of Science (1990 - Present)

Publications

- [A promising new \$\gamma\$ -secretase modulator for Alzheimer's disease.](#)
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- [Novel Alzheimer Disease Risk Loci and Pathways in African American Individuals Using the African Genome Resources Panel: A Meta-analysis.](#)
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Rosenberg RN, Craft S, Grabowski TJ, Asthana S, Morris JC, Strittmatter SM, Kukull WA

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- [The innate immunity protein IFITM3 modulates \$\gamma\$ -secretase in Alzheimer's disease.](#)
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- [A \$\beta\$ -accelerated neurodegeneration caused by Alzheimer's-associated ACE variant R1279Q is rescued by angiotensin system inhibition in mice.](#)
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- [Contribution of GABAergic interneurons to amyloid- \$\beta\$ plaque pathology in an APP knock-in mouse model.](#)
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- [RPS23RG1 May Prevent Ubiquitin-Proteosomal Degradation of Postsynaptic Densities-93 and -95 to Protect Synaptic Function: Implications for Alzheimer's Disease.](#)
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- [Editorial: Implications for BACE1 Inhibitor Clinical Trials: Adult Conditional BACE1 Knockout Mice Exhibit Axonal Organization Defects in the Hippocampus.](#)
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- [ER stress is not elevated in the 5XFAD mouse model of Alzheimer's disease.](#)
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- [A promising, novel, and unique BACE1 inhibitor emerges in the quest to prevent Alzheimer's disease.](#)
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- [A \$\beta\$ reduction in BACE1 heterozygous null 5XFAD mice is associated with transgenic APP level.](#)

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- [Molecular neurodegeneration: basic biology and disease pathways.](#)

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