

## DAFTAR PUSTAKA

1. Philipp Mergenthaler<sup>1</sup>, Ute Lindauer<sup>2</sup>, Gerald A. Dienel<sup>3</sup> and AM. Sugar for the brain: the role of glucose in physiological and pathological brain function *Philipp*. 2013;36(10):587–97.
2. Yang J, Kong L, Zou L, Liu Y. The role of synaptic protein NSF in the development and progression of neurological diseases. *Front Neurosci*. 2024;18(October):1–16.
3. Einkenkel AM, Salameh A. Selective vulnerability of hippocampal CA1 and CA3 pyramidal cells: What are possible pathomechanisms and should more attention be paid to the CA3 region in future studies? *J Neurosci Res*. 2024;102(1):1–38.
4. Rajeev V, Chai YL, Poh L, Selvaraji S, Fann DY, Jo DG, et al. Chronic cerebral hypoperfusion: a critical feature in unravelling the etiology of vascular cognitive impairment. *Acta Neuropathol Commun*. 2023;11(1):1–23.
5. Shaito A, Thuan DTB, Phu HT, Nguyen THD, Hasan H, Halabi S, et al. Herbal Medicine for Cardiovascular Diseases: Efficacy, Mechanisms, and Safety. *Front Pharmacol*. 2020;11(April):1–32.
6. World Health Organization (WHO). Siaran Pers. 2021 [cited 2025 Nov 1]. Dunia Gagal Mengatasi Tantangan Demensia.
7. Indonesia. A. Statistik tentang Demensia [Internet]. 2019 [cited 2025 Nov 5]. Available from: <https://alzi.or.id/statistik-tentang-demensia/>
8. He Y, He T, Li H, Chen W, Zhong B, Wu Y, et al. Deciphering mitochondrial dysfunction: Pathophysiological mechanisms in vascular cognitive impairment. *Biomed Pharmacother*. 2024;174:116428.
9. Kimura S, Iwata M, Takase H, Lo EH, Arai K. Oxidative stress and chronic cerebral hypoperfusion: An overview from preclinical rodent models. *J Cereb Blood Flow Metab*. 2025;45(3):381–95.
10. He Z, Liao Y, Zheng M, Zeng FD, Guo LJ. Piracetam improves cognitive deficits caused by chronic cerebral hypoperfusion in rats. *Cell Mol Neurobiol*. 2008;28(4):613–27.
11. Winnicka K, Tomasiak M, Bielawska A. General Piracetam Ñ An Old Drug With Novel Properties ? 2005;62(5):405–9.

12. asuryani, Purwanto YA, Budiastira IW, Syamsu K. Determination of catechin as main bioactive component of gambir (*Uncaria gambir* Roxb) by FT-NIR Spectroscopy. *J Med Plants Res.* 2013;7(41):3076–83.
13. Nofitasari L, Peranginangin JM, Handayani R. Aktivitas Antiparkinson Ekstrak Gambir (*Uncaria gambir* Roxb.) Pada Tikus Putih (*Rattus Norvegicus*) Galur Sprague Dawley yang Diinduksi Haloperidol. 2017;14(2):169–81.
14. Permatasari D, Khairunnisa P, Rosyari K, Wahyuni FS, Aldi Y, Armenia A. Antioxidant Associated Antihypertensive Performance of Purified Gambir (*Uncaria gambir* Roxb.) on Prednisone Salt-Induced Hypertensive Rats. *Open Access Maced J Med Sci.* 2022;10:390–5.
15. Fasrini UU, Lipoeto NI. Gambir catechins modulates amyloid- $\beta$  concentration in cerebrospinal fluid of Alzheimer's model rat. *IOP Conf Ser Earth Environ Sci.* 2021;741(1).
16. Endah Nurzannah S, Handayani T, Ramija K EL, Yunita Indah Wulandari. Budi Daya Gambir Spesifik Lokasi Provinsi Sumatra Utara Dan Kajian Sni Gambir. *J War BSIP Perkeb.* 2022;2(2):20–8.
17. Aprely KJ, Misfadhila S, Asra R. A Review: The Phytochemistry, Pharmacology and Traditional Use of Gambir (*Uncaria gambir* (Hunter) Roxb). *EAS J Pharm Pharmacol.* 2021;3(1)(1):21.
18. Sabarni. Teknik Pembuatan Teknik Pembuatan Gambir (*Uncaria gambir* Roxb) Secara Tradisional. *J Islam Sci Technol.* 2015;1(1):105–12.
19. Arisandi D, Dewi Putri S. SATIN-Sains dan Teknologi Informasi Simulasi Produksi Gambir dengan Metode Supply Chain Management. *Sains dan Teknol Inf.* 2016;2(2):1–8.
20. Putri MA, Naldi H. Kehidupan Sosial Ekonomi Buruh Tani Gambir Di Kenagarian Siguntur Kabupaten Pesisir Selatan (2006-2022). *J Kronologi.* 2023;5(2):1–20.
21. Handayani, Pangesti LAT, Siswanto E. Penyembuhan Luka Bakar Pada Kulit Punggung Mencit Putih Jantan ( *Mus musculus* ). *J Ilm Manuntung.* 2019;1(December 2015):133–9.
22. Mahendra I, Azhar M. Ekstraksi Dan Karakterisasi Katekin Dari Gambir (*Uncaria gambir* Roxb.). *J Period Jur Kim UNP.* 2022;11(1):5.
23. Supraningsih A, Maria A, Hendra L, Gandasari A. Kearifan Lokal

Pemanfaatan Gambir Dalam Pengobatan Tradisional Pada Masyarakat Desa Seluan. JPPM J Pelayanan dan Pemberdaya Masy. 2024;3(1):11–23.

24. Tua Manalu DS, Armyanti T. Analisis Nilai Tambah Gambir Di Indonesia (Sebuah Tinjauan Literatur) Analysis Added Value Of Gambir In Indonesia (A Literature Review). Mahatani J Agribisnis (agribus Agric Econ Journal). 2019;2(1):46–67.
25. Adinda Putri Anggia, Linda Rosalina. Eksplorasi Potensi Ekstrak Gambir (*Uncaria gambir* Roxb.) dan Daun Pepaya (*Carica Papaya* L.) sebagai Masker Wajah. Nian Tana Sikk J ilmiah Mahasiswa. 2024;2(6):18–28.
26. Mita SR, Muhtar NI, Kusuma SAF, Sriwidodo S, Hendrawan RP. Catechins as Antimicrobial Agents and Their Contribution to Cosmetics. Cosmetics. 2025;12(1):1–12.
27. Morika HD, Nur SA. Pengaruh Pemberian Gambir (*Uncaria gambir* Roxb.) Terhadap Kadar Gula Darah Pada Pasien Diabetes Melitus Tipe II. J Kesehatan Sainika. 2020;2(July):27–39.
28. Armenia A, Badriyya E, Rahmita S, Rachmaini F, Abdillah R. Malondialdehyde and TNF- $\alpha$  lowering effects of purified gambier (*Uncaria gambir* Roxb.) in diabetic rats. J Ayurveda Integr Med. 2024;15(1):100855.
29. Alioes Y, Sukma RR, Sekar SL. Effect of Gambir Catechin Isolate (*Uncaria gambir*Roxb.) Against Rat Triacylglycerol Level (*Rattus novergicus*). IOP Conf Ser Earth Environ Sci. 2019;217(1).
30. Yunarto N, Sulistyaningrum N, Kurniatri AA, Elya B. Gambir (*Uncaria gambir* Roxb.) as A Potential Alternative Treatment for Hyperlipidemia. Media Penelit dan Pengemb Kesehatan. 2021;31(3):183–92.
31. Rahmaddiansyah R, Amriza MZ, Rita RS. The Antioxidant and Antibacterial Effects of Gambier Catechin (*Uncaria gambir* Roxb) in Streptococcal Gingivitis: A Review. South East Eur J Immunol. 2024;7:50–5.
32. Nath S, Bachani M, Harshavardhana D, Steiner JP. Catechins protect neurons against mitochondrial toxins and HIV proteins via activation of the BDNF pathway. J Neurovirol. 2012;18(6):445–55.
33. Of JO, Chinese NEW. Uji Mutagenik Ames untuk Melengkapi Data Keamanan Ekstrak Gambir (*Uncaria gambir* Roxb.) Novi. 2013;1(2):5–7.
34. Armenia, Permatasari D, Sinamar LP, Estera K, Ahmadin A. The impact of sub acute administration of purified gambier (*Uncaria gambir* Roxb.) to the

liver and kidney functions and its reversibility on rats. *Pharmacogn J.* 2021;13(1):44–51.

35. Gustia E, Aldi Y, Hefni D, Kamal S, Dachriyanus, Wahyuni FS. The Immunostimulant Activities of the Gambir (*Uncaria gambir* Roxb) on Raw 264.7 Cell . Proc 2nd Int Conf Contemp Sci Clin Pharm 2021 (ICCSCP 2021). 2022;40(Iccscp).
36. Permatasari D, Oktavia I, Nazar A, Ahmadin A. The Sub Acute Toxicity Study of Purified Gambir (*Uncaria gambir* Roxb.) to Liver Histology and its Reversibility on Rats. *Bioscience.* 2021;5(1):12.
37. Alfarisi F, Lestari C, Orienty FN, Fadriyanti O, Anggraini N. Uji Karakteristik dan Uji Organoleptik Obat Kumur Katekin Gambir (*Uncaria gambir* Roxb). *Sinnun Maxillofac J.* 2024;6(02):70–8.
38. Yeni G, Syamsu K, Mardiyati E, Muchtar H. Penentuan Teknologi Proses Pembuatan Gambir Murni dan Katekin Terstandar dari Gambir Asalan. *J Litbang Ind.* 2017;7(1):1.
39. Alegantina S, Setyorini HA. Gambaran Cemarkan dan Kadar Metil Galat pada Tiga Mutu Ekstrak Gambir (*Uncaria gambir* Roxb.). *J Kefarmasian Indones.* 2017;7(1):10–8.
40. Ii Z, Inhibitor S, Lipase E. Sintesis, Karakterisasi Dan Uji Aktivitas Senyawa Kompleks Zn(II)-Katekin Sebagai Inhibitor Enzim Lipase Antyka Lutfiana Putri, Harsasi Setyawati, Sri Sumarsih\*. 2019;4(1):33–9.
41. Tipton CM. The autonomic nervous system. *Exercise Physiology: People and Ideas.* 2020. 188–254 p.
42. Ghosh SK, Pandit JJ. Neurological and humoral control of blood pressure. *Anaesth Intensive Care Med.* 2019;20(5):301–5.
43. Rochmah DL, Utami ET. Dampak Mengonsumsi Monosodium Glutamat (Msg) Dalam Perkembangan Otak Anak. *J Kesehat Masy.* 2022;10(2):163–6.
44. Inoue Y, Shue F, Bu G, Kanekiyo T. Pathophysiology and probable etiology of cerebral small vessel disease in vascular dementia and Alzheimer's disease. *Mol Neurodegener.* 2023;18(1):1–22.
45. Dong S, Maniar S, Manole MD, Sun D. Cerebral Hypoperfusion and Other Shared Brain Pathologies in Ischemic Stroke and Alzheimer's Disease. *Transl Stroke Res.* 2018;9(3):238–50.
46. Ciacciarelli A, Sette G, Giubilei F, Orzi F. Chronic cerebral hypoperfusion: An

- undefined, relevant entity. *J Clin Neurosci*. 2020;73(xxxx):8–12.
47. Li Q, Yang Y, Reis C, Tao T, Li W, Li X, et al. Cerebral Small Vessel Disease. *Cell Transplant*. 2018;27(12):1711–22.
  48. Yulianti Bisri D. Sindrom Hiperperfusi Serebral. *J Neuroanestesi Indones*. 2022;11(3):193–205.
  49. Yang DR, Wang MY, Zhang CL, Wang Y. Endothelial dysfunction in vascular complications of diabetes: a comprehensive review of mechanisms and implications. *Front Endocrinol (Lausanne)*. 2024;15(April):1–21.
  50. Hilda Emma Mallisa, Aryadi Arsyad II. Effect of White Led Light At Night on Brain Malondialdehyde Levels and Histopathology of Ca3 and Ca1 Ce. *J Ilmu Kesehatan*. 2021;15(2):164–70.
  51. Wang Z, Chen Q, Chen J, Yang N, Zheng K. Risk factors of cerebral small vessel disease: A systematic review and meta-analysis. *Med (United States)*. 2021;100(51):E28229.
  52. Izzo C, Carrizzo A, Alfano A, Virtuoso N, Capunzo M, Calabrese M, et al. The impact of aging on cardio and cerebrovascular diseases. *Int J Mol Sci*. 2018;19(2).
  53. Tarkkonen A, Kyläheiko I, Inkeri J, Eriksson MI, Thorn LM, Summanen PA, et al. Progression of Cerebral Small Vessel Disease Among Neurologically Asymptomatic Middle-Aged Individuals With Type 1 Diabetes. *Diabetes Care*. 2025;48(5):776–80.
  54. Jamal F, Insyirah M. Manajemen Anestesi pada Ketidakseimbangan Natrium dan Kalium Fachrul. *J Kedokt Nanggroe Med*. 2023;VOL.6(938):6–37.
  55. Nugroho I. Pengaruh Pemberian Monosodium Glutamat Terhadap Jumlah Sel Purkinje Cerebellum Pada Tikus. *J Ilm Kesehatan Sandi Husada*. 2020;12(2):719–25.
  56. Ma W, Geng Y, Liu Y, Pan H, Wang Q, Zhang Y, et al. The mechanisms of white matter injury and immune system crosstalk in promoting the progression of Parkinson's disease: a narrative review. *Front Aging Neurosci*. 2024;16(May):1–10.
  57. Sasannia S, Leigh R, Bastani PB, Shin HG, van Zijl P, Knutsson L, et al. Blood-brain barrier breakdown in brain ischemia: Insights from MRI perfusion imaging. *Neurotherapeutics*. 2025;22(1):e00516.

58. Pescador Prieto. Quantitative Analysis Of Leukoaraiosis Using Diffusion Tensor Imaging: A Retrospective Study Siti. *Braz Dent J.* 2022;33(1):1–12.
59. Chauhan P, Jethwa K, Rathawa A, Chauhan G, Mehra S. The Anatomy of the Hippocampus. *Cereb Ischemia.* 2021;17–30.
60. Sunarno, Mardiaty SM, Suprihatin T. Potensi Bahan Antiaging dari Ekstrak Ikan Gabus (*Channa striata*) terhadap Perbaikan Histo-Morfologi Hipokampus. *Bul Anat dan Fisiol.* 2015;XXIII:81–91.
61. Liu Z. The role of the hippocampus in memory formation and consolidation. *Theor Nat Sci.* 2024;63(1):62–7.
62. Sun L, Li S, Ren P, Liu Q, Li Z, Liang X. Pattern Separation and Pattern Completion Within the Hippocampal Circuit During Naturalistic Stimuli. *Hum Brain Mapp.* 2025;46(2):1–13.
63. Toda T, Parylak SL, Linker SB, Gage FH. The role of adult hippocampal neurogenesis in brain health and disease. *Mol Psychiatry.* 2019;24(1):67–87.
64. Rolls ET. The mechanisms for pattern completion and pattern separation in the hippocampus. *Front Syst Neurosci.* 2013;7(OCT):1–21.
65. Piskorowski RA, Chevaleyre V. Hippocampal area CA2: interneuron disfunction during pathological states. *Front Neural Circuits.* 2023;17(April):1–12.
66. Piatti VC, Ewe LA, Leutgeb JK. Neurogenesis in the dentate gyrus: Carrying the message or dictating the tone. *Front Neurosci.* 2013;7(7 APR):1–11.
67. Susilowati A, Widiyanto S, Kusindarta DL, Wijayanti N. Sistem Memori dan Pembelajaran pada Mamalia. *Berk Ilm Biol.* 2024;15(3):143–66.
68. Tsetsenis T, Badya JK, Li R, Dani JA. Activation of a Locus Coeruleus to Dorsal Hippocampus Noradrenergic Circuit Facilitates Associative Learning. *Front Cell Neurosci.* 2022;16(April).
69. Li T, Xu G, Yi J, Huang Y. Intraoperative Hypothermia Induces Vascular Dysfunction in the CA1 Region of Rat Hippocampus. *Brain Sci.* 2022;12(6):1–14.
70. Geiller T, Priestley JB, Losonczy A. A local circuit-basis for spatial navigation and memory processes in hippocampal area CA1. *Curr Opin Neurobiol.* 2023;79:1–14.
71. Mosleh M, Javan M, Fathollahi Y. The properties of long-term potentiation at

SC-CA1/ TA-CA1 hippocampal synaptic pathways depends upon their input pathway activation patterns. *IBRO Neurosci Reports*. 2023;14(March):358–65.

72. Li T, Zheng J, Wang Z, Xu L, Sun D, Song H, et al. Maresin 1 improves cognitive decline and ameliorates inflammation and blood-brain barrier damage in rats with chronic cerebral hypoperfusion. *Brain Res*. 2022;1788(April):147936.
73. Kesner RP, Rolls ET. *Neuroscience and Biobehavioral Reviews* A computational theory of hippocampal function , and tests of the theory : New developments. *Neurosci Biobehav Rev*. 2015;48:92–147.
74. Othman MZ, Hassan Z, Has ATC. Morris water maze: a versatile and pertinent tool for assessing spatial learning and memory. *Exp Anim*. 2022;71(3):264–80.
75. Apriliyani T, Ainun Oktavia Pusparini N, Rohmah Z, Anindito Sri Tunjung W, Ardaning Nuriliani dan. Mekanisme Penyakit Kardiovaskular Terkait Penuaan (Mechanisms of Cardiovascular Diseases Related to Aging). *Bioma Berk Ilm Biol*. 2024;26(2):2598–2370.
76. Wu L, Xiong X, Wu X, Ye Y, Jian Z, Zhi Z, et al. Targeting Oxidative Stress and Inflammation to Prevent Ischemia-Reperfusion Injury. *Front Mol Neurosci*. 2020;13(March):1–13.
77. Markus HS, Joutel A. the Pathogenesis of Cerebral Small Vessel Disease and Vascular Cognitive Impairment. *Physiol Rev*. 2025;105(3):1075–171.
78. Ocktavia L, Rivarti AW, Harahap HS, Nurhidayati N, Suryani D, Stephen ME, et al. Upaya Menurunkan Prevalensi Demensia Mealui Edukasi Kesehatan Terkait Faktor Resiko Demensia Dan Deteksi Dini Gangguan Kognitif Pada Populasi Lansia Di Masyarakat Pesisir Lombok. *J Abdi Insa*. 2024;11(3):369–76.
79. Li W, Liu H, Jiang H, Wang C, Guo Y, Sun Y, et al. (S)-Oxiracetam is the Active Ingredient in Oxiracetam that Alleviates the Cognitive Impairment Induced by Chronic Cerebral Hypoperfusion in Rats. *Sci Rep [Internet]*. 2017;7(1):1–14. Available from: <http://dx.doi.org/10.1038/s41598-017-10283-4>
80. Ishikawa H, Shindo A, Mizutani A, Tomimoto H, Lo EH, Arai K. A brief overview of a mouse model of cerebral hypoperfusion by bilateral carotid artery stenosis. *J Cereb Blood Flow Metab*. 2023;43(2\_suppl):18–36.
81. Wang J, Yang C, Wang H, Li D, Li T, Sun Y, et al. A New Rat Model of Chronic Cerebral Hypoperfusion Resulting in Early-Stage Vascular Cognitive

- Impairment. *Front Aging Neurosci.* 2020;12(April):1–15.
82. Soria G, Tudela R, Márquez-Martín A, Camón L, Batalle D, Muñoz-Moreno E, et al. The Ins and Outs of the BCCAO Model for Chronic Hypoperfusion: A Multimodal and Longitudinal MRI Approach. *PLoS One.* 2013;8(9):1–18.
  83. Tukacs V, Mittli D, Hunyadi-Gulyás É, Hlatky D, Medzihradsky KF, Darula Z, et al. Chronic Cerebral Hypoperfusion-Induced Disturbed Proteostasis of Mitochondria and MAM Is Reflected in the CSF of Rats by Proteomic Analysis. *Mol Neurobiol.* 2023;60(6):3158–74.
  84. Hricisák L, Pál É, Nagy D, Delank M, Polycarpou A, Fülöp Á, et al. NO Deficiency Compromises Inter- and Intra-hemispheric Blood Flow Adaptation to Unilateral Carotid Artery Occlusion. *Int J Mol Sci.* 2024;25(2).
  85. Yoshizaki K, Adachi K, Kataoka S, Watanabe A, Tabira T, Takahashi K, et al. Chronic cerebral hypoperfusion induced by right unilateral common carotid artery occlusion causes delayed white matter lesions and cognitive impairment in adult mice. *Exp Neurol.* 2008;210(2):585–91.
  86. Sharma S, Rakoczy S, Brown-borg H, Sciences H, Forks G, States U. Assessment of spatial memory in mice *Sunita.* 2019;87:521–36.
  87. Zhang M, Hu Y, Zhang J, Zhang J. FTY720 Prevents Spatial Memory Impairment in a Rat Model of Chronic Cerebral Hypoperfusion via a SIRT3-Independent Pathway. *Front Aging Neurosci.* 2021;12(January):1–12.
  88. Vorhees C V, Williams MT. Morris water maze : procedures for assessing spatial and related forms of learning and memory. 2006;(Mlc 7044).
  89. Lissner LJ, Min K, Toniazzo AP, Gonçalves C alberto, Rodrigues L. Pharmacology , Biochemistry and Behavior Object recognition and Morris water maze to detect cognitive impairment from mild hippocampal damage in rats : A reflection based on the literature and experience. 2021;210(September).
  90. Rahman ML, Sunartatie T, Hendry A, Yan TQ, Utami DM, Studi P, et al. Dosis Efektif Anestesi Kombinasi Ketamine-xylazine pada Tikus Pediatri Evaluation of Effective Dose of Ketamine-Xylazine Combination Anesthesia in Pediatric Rats. 2025;43(2).
  91. Musyarifah Z, Agus S. Tinjauan Pustaka Proses Fiksasi pada Pemeriksaan Histopatologik. 2018;7(3):443–53.
  92. Lestari JW, Puspaningsih ES, Karma M, Wirajaya M. Enhancing Animal Histology Through Eosin and Haematoxylin Staining Preparations.

2024;1(1):1–6.

93. Kristianingrum YP, Widyarini S, Sutrisno B, Patologi D, Hewan FK, Mada UG. Gambaran Histopatologi Otak Tikus Akibat Injeksi Trimetyltin sebagai Model Penyakit Alzheimer. 2016;34(1):84–91.
94. Amelia A, Andriani Y, Andriani L, Tinggi S, Kesehatan I, Ibu H. Setelah Pemberian Fraksi Daun Sembung Rambat ( Mikania Micrantha Kunth ) Sebagai Aktivitas. 2020;5(1):30–7.
95. Zucker2 AKB and I. Sex Bias in Neuroscience and Biomedical Research Annaliere. 2012;35(3):565–72.
96. Hara Y, Waters EM, Mcewen BS, Morrison JH. Estrogen Effects On Cognitive And Synaptic Health Over The Lifecourse. 2015;785–807.
97. Medvedeva Y V, Ji SG, Yin HZ, Weiss XJH. Differential Vulnerability of CA1 versus CA3 Pyramidal Neurons After Ischemia : Possible Relationship to Sources of Zn 2 2 Accumulation and Its Entry into and Prolonged Effects on Mitochondria. 2017;37(3):726–37.
98. Lana D, Ugolini F, Giovannini MG, Liddelaw SA. An Overview on the Differential Interplay Among Neurons – Astrocytes – Microglia in CA1 and CA3 Hippocampus in Hypoxia / Ischemia. 2020;14(November):1–23.
99. Alfieri A, Koudelka J, Li M, Scheffer S, Duncombe J, Caporali A, et al. Nox2 underpins microvascular inflammation and vascular contributions to cognitive decline. 2022;
100. Kahles T, Luedike P, Endres M, Galla H joachim, Steinmetz H, Busse R, et al. NADPH Oxidase Plays a Central Role in Blood-Brain Barrier Damage in Experimental Stroke. 2007;3000–6.
101. Park D ju, Kang J bin, Id P ok K. Epigallocatechin gallate improves neuronal damage in animal model of ischemic stroke and glutamate-exposed neurons via modulation of hippocalcin expression. 2024;1–20.
102. Pragnya S, Grandhi C, Ramalingayya V. Catechin ameliorates doxorubicin-induced neuronal cytotoxicity in in vitro and episodic memory deficit in vivo in Wistar rats. Cytotechnology. 2018;70(1):245–59.
103. Calabrese EJ, Baldwin La. H Ormesis : The Dose-Response Revolution. 2003;
104. Manuscript A. NIH Public Access Author Manuscript Arch Biochem Biophys. Author manuscript; available in PMC 2011 September 1. Published in final

edited form as: Arch Biochem Biophys. 2010 September 1; 501(1): 65–72. doi:10.1016/j.abb.2010.06.013. The antioxidant and pr. 2011;501(1):65–72.

105. Salameh A marie EA. Selective vulnerability of hippocampal CA1 and CA3 pyramidal cells: What are possible pathomechanisms and should more attention be paid to the CA3 region in future studies ? 2023;(June):1–38.
106. Chandimali N, Bak SG, Park EH, Lim H jin, Won Y seon, Kim E kyung. Free radicals and their impact on health and antioxidant defenses : a review. Cell Death Discov. 2025;(December 2024).
107. Maheshwari A. Rodent EEG : Expanding the Spectrum of Analysis. 2020;
108. Jonckers E, Shah D, Hamaide J, Verhoye M. The power of using functional fMRI on small rodents to study brain pharmacology and disease Physiological Basis of fMRI. 2015;6(October):1–19.
109. Boos GS, Failing K, Colodel EM, Driemeier D, Erny D. Glial Fibrillary Acidic Protein and Ionized Calcium-Binding Adapter Molecule 1 Immunostaining Score for the Central Nervous System of Horses With Non-suppurative Encephalitis and Encephalopathies. 2021;8(July):1–14.
110. Schmued LC. Development and application of novel histochemical tracers for localizing brain connectivity and pathology. Brain Res. 2016;1–5.

