
Paul L. Wood, Ph.D.

Vita

CONTACT INFORMATION:

Director, Metabolomics Unit,
Professor, College of Veterinary Medicine
Lincoln Memorial University,
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EDUCATION:

- B.Sc. Hon. (Biology, 1973), Trent University, Peterborough, Ont.
- Ph.D. (Pharmacology, 1977; Dr. R. Boegman), Queens Univ., Kingston, Ont.
- Postdoctoral studies (Dr. E. Costa & Dr. Darwin L. Cheney, NIMH, 1979)

EMPLOYMENT HISTORY AND RESPONSIBILITIES:

- Lincoln Memorial University (2011-present)
 - Director Metabolomics Unit
 - Professor, Pharmacology
 - Research training of DO and DVM students (summer projects)
 - Graduate student supervision
 - Post-doctoral fellow training
- Senior VP of R&D, Phenomenome Discoveries (2007-2011)
 - Drug discovery and development
- Director, Neuropharmacology, Falk Center for Molecular Therapeutics, Dept. of Biomedical Engineering, Northwestern University (2003-2007)
 - Drug discovery
- CEO, Centaur Pharmaceuticals (1999-2002)
 - Company management
 - Drug R&D
 - Corporate partnering
- Sr. VP Preclinical Development, Elan Pharmaceuticals (1998-1999)
 - Drug development
- VP Preclinical Development, CoCensys (1993-1998)
 - Drug R&D
 - Post-doctoral fellow training
- Professor of Pharmacology & Molecular Neuroscience, Mayo Clinic (1990-1993)
 - Alzheimer's disease research
 - Teaching
 - Post-doctoral fellow training

- Associate Director, CNS Diseases, G.D. Searle (1988-1990)
 - Drug R&D
- Manager, Neuroscience Research, Ciba Geigy (1983-1988)
 - Drug R&D
 - Post-doctoral fellow training
- Director, Douglas Hospital Research Labs., McGill University (1980-1983)
 - Director clinical research laboratory
 - Alzheimer's disease research
 - Teaching
 - Post-doctoral fellow training
- Analgesia Project Leader, Merck, Montreal (1979-1980).
 - Drug discovery
 - Project leader

CONSULTING:

- ADMHA (Behavioral Neurobiology) Grant Review Committee: (1987-1992)
- NIDA (Drug Abuse Biomedical Research Review Committee): 1987, 1989
- NIA (2009-2010)
- Canadian Foundation for Innovation, One Time Center of Excellence Solicitation (2009)
- External Advisory Committee, NSF-Funded Natl. High Magnetic Field Lab, Florida State U. (2008-2013)
- American Osteopathic Association Council on Research (2012-2015)
- NASA, Metabolomics for the Mars Mission (2014)

AWARDS

- 2018 Zoetis Award for Veterinary Research Excellence

GRANTS and CONTRACTS:

- Establishment Grant, Fonds de la Recherche en Sante du Quebec, 1981-1982
- Operating Grant, Canadian MRC, 1981-1983. Cortical and Hippocampal Cholinergic Pathways: Regulatory Inputs.
- Operating Grant, Canadian MRC, 1981-1983 Neurochemical and Clinicopathological Studies of the Substantia Innominata and Septum in Alzheimer's Disease.
- Maintenance Grant, Canadian MRC, 1982 - 1984
- Operating Grant, Canadian MRC, 1983-1984. Cortical Opiate Receptors.
- Agents for the treatment of memory & learning disorders. NIH 1992-1995. A. Kozikowski, PI.
- Novel therapeutics for chronic pain. SBIR (1R43NS51150-1), 2004-2006. P. Wood, PI
- Mouse cuprizone model of demyelination. NSERC, 2008-2010. P. Wood, PI
- Lipidomics of RCDP. Rhizo Kids International, 2011-2015. P. Wood, PI.

- Postmortem Interval Determination from Muscle: A Metabolomics / Lipidomics Approach. Shirley N, Wood PL, Steadman D. CFDA 2015-2018.
- Postmortem Interval Determination from Bone: A Metabolomics and Lipidomics Approach. Dudzik B, Jantz LM, Langley NR, Wood PL. DOJ. 2018-2019

EDITORIAL BOARDS:

- Metabolites (2020-) (Lipidomics Editor; 2023-)
- Frontiers in Cell and Developmental Biology (Associate Editor, 2023-)

PUBLICATIONS:

Books

- Wood, P.L. (1998) Neuroinflammation. Mechanisms and Management. P.L. Wood (ed.). Humana Press, Totowa, NJ. ISBN 978-1-4757-5961-7 ISBN 978-1-59259-473-3 (eBook).
- Wood, P.L. (2003) Neuroinflammation. Mechanisms and Management, 2nd edition. P.L. Wood (ed.). Humana Press, Totowa, NJ. ISBN 978-1-4684-9720-5 ISBN 978-1-59259-297-5 (eBook).
- Wood PL. (2017) Springer Protocols, Neuromethods: Lipidomics Vol 125. (PL Wood, Editor).
- Wood PL. (2021) Springer Protocols, Neuromethods: Metabolomics Vol 159 (PL Wood, Editor).

Book Chapters (35)

- Cheney, D.L., Robinson, S.E., Malthe-Sorensen, D., Wood, P.L., & Costa, E. (1978) Regulation of hippocampal cholinergic neurons by dopaminergic synapses in septum. IN: E. Usdin (ed) Catecholamines: Basic and Clinical Frontiers. Pergamon Press, N.Y. pp1062-1064.
- Lal, S., Nair, N.P.V., Iskandar, H.I., Wood, P.L., Etienne, P. & Guyda, H. (1983) Clinical studies on the dopamine receptor mediating apomorphine-induced growth hormone secretion. IN Neuropeptides, Neurotransmitters and Regulation of Endocrine Processes. F.Endroczi (ed), Publ. House Hung. Acad. Sci., Budapest pp 431-442.
- Wood, P.L. (1984) Animal models in analgesic testing. IN Analgesics: Neurochemical, Behavioral and Clinical Perspectives. M.J. Kuhar & G.W. Pasternak (eds) Raven Press. N.Y. pp175-194.
- Wood, P.L., Stotland, L.M. & Rackham, A (1984) Opiate receptor regulation of acetylcholine metabolism: Role of mu, delta, kappa and sigma narcotic receptors. IN Dynamics of Neurotransmitter Function. I. Hanin (ed). Raven Press. N.Y. pp 99-107.

- Wood, P.L., Hudgin, R.L. & Rackham, A. (1984) Neuropharmacology of kappa and agonist/antagonist analgesics. Symposium: Quo Vadis? Kappa receptors and their ligands. Clin Midy Press. Montpellier. pp206-214.
- Wood, P.L. & Hudgin, R.L. (1984) Enkephalinase inhibitors: *In vitro* and *in vivo* pharmacology. Symposium: Quo Vadis? Analgesia and enkephalinases. Clin Midy Press. Montpellier. pp138-144.
- Lal, S., Nair, N.P.V., Liely, M.E., Suranyi-Cadotte, B.E., Wood, P.L., Stratford, J., Ford, R.M. and Guyda, H. (1985) Other neurotransmitters or neuromodulators in psychiatry. In. Brain Neurotransmitters and Psychiatry. A. Villeneuve (ed) Astra, Toronto. pp 62-69.
- Wood, P.L., Martin, L.L. and Altar, C.A. (1985) [³H]Tryptamine receptors in rat brain. In. Neuropsychopharmacology of the Trace Amines. ed. A.A. Boulton, L. Maitre, P.R. Bieck and P. Reiderer. Humana Press, Clifton, N.J. pp 101-114.
- Wood, P.L., Braunwalder, A., Bennett, D.A., Bernard, P.S., Brode, S., Petrack, B. and Cheney, D.L. (1986) Benzodiazepine receptor multiplicity : Pharmacological comparison of a full agonist, partial agonist and agonist/antagonist. IN. C. Shagrass (ed), Proceedings of the IV World Congress Biological Psychiatry. Elsevier. New York. pg 276-278.
- Martin, L.L. and Wood, P.L. (1987) Effects of N-methyl-D- aspartate (NMDA) and DL-2-amino-7-phosphonoheptanoate (AP7) on mouse brain glutamate turnover. IN Excitatory Amino Acid Transmission. T.P. Hicks, D. Lodge & H. McLennan (ed) Alan R. Liss Inc. N.Y. pp 413-416.
- Lehmann, J., Loo, P., McPherson, S., ffrench-Mullen, J.M.H., Steel, D., Braunwalder, A., Williams, M. and Wood, P.L. (1987) NMDA- and PCP-type receptor interactions. IN Excitatory Amino Acid Transmission. T.P. Hicks, D. Lodge & H. McLennan (ed) Alan R. Liss Inc. N.Y. pp 91-98.
- Tsai, C., Steel, D.J., McPherson, S., Taylor, C.A., Wood, P.L. and Lehmann, J. (1987) PK 26124 is not a competitive antagonist at NMDA-type receptors. IN Excitatory Amino Acid Transmission. T.P. Hicks, D. Lodge & H. McLennan (ed) Alan R. Liss Inc. N.Y. pp 79-82.
- Wood, P.L. and Iyengar, S. (1987) Central actions of opiates and opioid peptides: In vivo evidence for opioid receptor multiplicity. IN The Opiate Receptors (G.W. Pasternak, ed). Humana Press, Clifton, N.J. pp 307-356.
- Lehmann, J. and Wood, P.L. (1988) Interactions between the NMDA-type receptor complex and PCP recognition sites. In Sigma- and PCP-Like Compounds as Molecular Probes in Biology. (E.F. Domino and J.M. Kamenka, ed.). NPP Books, Ann Arbor. pp 251- 258.
- Martin, L.L., Baker, G.B. and Wood, P.L. (1988) Tryptamine turnover: Effects of drugs. IN. Trace Amines: Comparative and Clinical Neurobiology. A.A. Boulton, A.V. Juorio and R.G.H. Downer (eds). Humana Press, Clifton, N.J. pp 73-102.
- Wood, P.L. and Rao, T.S. (1989) GC-MS and GC-MS/MS of monoamines, indoles, trace amines and their associated precursors and metabolites. In Mass Spectrometry

of Biological Materials. C.N. McEwen and B.S. Larsen (ed) Marcel Dekker Inc., N.Y. pp 197-214.

- Iyengar, S. and Wood, P.L. (1989) Multiplicity and classification of opioid receptors. In Opioid Peptides, Vol 4. J.I. Szekely and K. Ramabadran (ed). CRC Press pp 115-132.
- Wood, P.L., Emmett, M.R., Rao, T.S., Mick, S.J., Cler, J.A. and Iyengar, S. (1990) *In vivo* cerebellar cGMP responses: A model system for studies of the NMDA-associated glycine receptor. In Neurotoxicity of Excitatory Amino Acids. A. Guiudotti (ed). Raven Press. New York. pp 223-234.
- Lehmann, J., Etienne, P., Cheney, D.L. and Wood, P.L. (1991) NMDA receptors and their ion channels. In Neurotransmitters and Epilepsy. R.S. Fisher & J.T. Coyle (ed). Alan R. Liss, NY. pg 147-165.
- Wood, P.L. (1991) Role of nitric oxide in the activation of cerebellar guanylate cyclase by excitatory amino acid agonists *in vivo*. In Excitatory Amino Acids. B.S. Meldrum, F. Moroni, R.P. Simon and J.H. Woods (ed). Raven Press. New York. pp 317-321.
- Wood, P.L. (1992) Interrelationships of opioid, dopaminergic, cholinergic and GABAergic pathways in the central nervous system. Handbook of Exp. Pharmacol. 104: 625-643.
- Wood, P.L. (1995) Nitric oxide as a second messenger in the cerebellum and hippocampus: *in vitro* and *in vivo* studies. S. Vincent, ed. Nitric Oxide in the Nervous System. Academic Press. pp. 103-123.
- Wood, P.L. and Weber, W. (1995) Glycine antagonists - Development issues for use in neuroprotection. J. Grotta, L.P. Miller & A.M. Buchan, ed. Ischemic Stroke. IBC, Boston. pp. 169-186.
- Wood, P.L. (1998) Roles of CNS macrophages in neurodegeneration. IN Neuroinflammation. Mechanisms and Management. P.L. Wood (ed.). Humana Press, Totowa, NJ. pg 1-59. ISBN 978-1-4757-5961-7 ISBN 978-1-59259-473-3 (eBook).
- Wood, P.L. (2003) Microglia: Roles of microglia in chronic neurodegenerative diseases. IN Neuroinflammation. Mechanisms and Management, 2nd edition. P.L. Wood (ed.). Humana Press, Totowa, NJ. pg. 3-27. ISBN 978-1-4684-9720-5 ISBN 978-1-59259-297-5 (eBook)
- Wood, P.L. (2003) The cerebellum in AD: A Case for arrested neuroinflammation? IN Neuroinflammation. Mechanisms and Management, 2nd edition. P.L. Wood (ed.). Humana Press, Totowa, NJ. pg. 295-300. ISBN 978-1-4684-9720-5 ISBN 978-1-59259-297-5 (eBook)
- Wood PL, Khan MA, Mankidy R, Smith T, Goodenowe DB (2011) Plasmalogen deficit: A new and testable hypothesis for the etiology of Alzheimer's disease. IN Alzheimer's Disease Pathogenesis-Core Concepts, Shifting Paradigms and Therapeutic Targets. (Edited by Suzanne De La Monte) InTech Open Access Publisher. Pages 561-588.
- Wood PL. (2017) Non-targeted lipidomics utilizing constant infusion high resolution ESI mass spectrometry. IN Springer Protocols, Neuromethods: Lipidomics Vol 125: 13-19. (PL Wood, Editor). ISBN 978-1-0716-0863-0; ISBN eBook 978-1-0716-0864-0.

- Wood PL. (2017) Derivatization of Lipid Amines: Fluorenylmethyloxycarbonyl (Fmoc). IN Springer Protocols, Neuromethods: Lipidomics Vol 125: 233-236. (PL Wood, Editor). ISBN 978-1-0716-0863-0; ISBN eBook 978-1-0716-0864-0.
- Wood PL. (2017) Derivatization of Fatty Aldehydes and Ketones: Girard's Reagent T (GRT). IN Springer Protocols, Neuromethods: Lipidomics Vol 125: 229-232. (PL Wood, Editor). ISBN 978-1-0716-0863-0; ISBN eBook 978-1-0716-0864-0.
- Wood PL. (2017) High-Resolution Mass Spectrometry of Glycerophospholipid Oxidation Products. IN Springer Protocols, Neuromethods: Lipidomics Vol 125: 237-241. (PL Wood, Editor). ISBN 978-1-0716-0863-0; ISBN eBook 978-1-0716-0864-0.
- Wood PL. (2021) Flow injection ESI high-resolution mass spectrometry metabolomics analytical platform. IN Springer Protocols, Neuromethods: Metabolomics Vol. 159 : 1-8. (PL Wood, Editor). ISBN 978-1-0716-0863-0; ISBN eBook 978-1-0716-0864-0.
- Wood PL, Woltjer RL. (2021) Electrospray Ionization High Resolution Mass Spectrometry of the Chloride Adducts of Steroids, Mono- and Oligo-saccharides, Xyloglucans, Ceramides, Gangliosides, and Phenols. IN Springer Protocols, Neuromethods: Metabolomics Vol. 159 : 69-76. (PL Wood, Editor). ISBN 978-1-0716-0863-0; ISBN eBook 978-1-0716-0864-0.
- Wood PL. (2021) GC-MS of Pentafluorobenzyl Derivatives of Phenols, Amines, Carboxylic Acids. IN Springer Protocols, Neuromethods: Metabolomics Vol. 159 : 221-228. (PL Wood, Editor). ISBN 978-1-0716-0863-0; ISBN eBook 978-1-0716-0864-0.
- Wood PL. (2021) GC-MS of *tert*-Butyldimethylsilyl (tBDMS) derivatives of Amino Acids. IN Springer Protocols, Neuromethods: Metabolomics Vol. 159: 229-234. (PL Wood, Editor). ISBN 978-1-0716-0863-0; ISBN eBook 978-1-0716-0864-0.

Peer-Reviewed Publications

1975

- Wood, P.L. & Boegman, R.J.C. (1975) Increased rate of rapid axonal transport in vitamin E deficient rats. **Brain Res.** 84:325-328.
- Boegman, R.J., Wood, P.L. & Pinaud, L. (1975) Increased axoplasmic flow associated with pargyline under conditions which induce a myopathy. **Nature** 253:51-52.
- Wood, P.L. & Boegman R.J. (1975) Increased axoplasmic flow in experimental ischemic myopathy. **Exp. Neurol.** 48:136-141.

1976

- Boegman, R.J. & Wood, P.L. (1976) Monoamines as possible mediators in the regulation of fast axoplasmic flow. **J. Neurochem.** 26:737-740.

1978

- Malthé-Sorensen, D., Wood, P.L., Cheney, D.L., & Costa, E. (1978) Modulation of the turnover rate of acetylcholine by intraventricular injections of thyrotropin-releasing hormone, somatostatin, neurotensin and angiotensin II. **J. Neurochem.** 31:685-691.
- Wood, P.L., Malthé-Sorensen, D., Cheney, D.L., & Costa, E. (1978) Increase of hippocampal acetylcholine turnover rate and the stretching-yawning syndrome elicited by alpha-MSH and ACTH. **Life Sciences** 22:673-678.
- Wood, P.L., Cheney, D.L., & Costa, E. (1978) Modulation of the turnover rate of hippocampal acetylcholine by neuropeptides: Possible site of action of alpha-melanocyte-stimulating hormone, adrenocorticotrophic hormone and somatostatin. **J. Pharmacol. Exp. Ther.** 209:97-103.
- Wood, P.L. & Cheney, D.L. (1978) The effects of muscarinic receptor blockers on the turnover rate of acetylcholine in various regions of the rat brain. **Can. J. Physiol. Pharmacol.** 57:404-411.
- Robinson, S.E., Malthé-Sorensen, D., Wood, P.L., & Commissiong, J. (1978) Dopaminergic control of the septal- hippocampal cholinergic pathway. **J. Pharmacol. Exp. Ther.** 208:476-479.
- Cheney, D.L., Robinson, S.E., Malthé-Sorensen, D., Wood, P.L., Commissiong, J.W., & Costa, E. (1978) Regulation of the cholinergic septal-hippocampal pathway: Role of dopaminergic septal afferents. **Adv. Pharmacol. Therap.** 5:241-250.

1979

- Wood, P.L., Moroni, F., Cheney, D.L., & Costa, E. (1979) Cortical lesions modulate turnover rates of acetylcholine and gamma-aminobutyric acid. **Neurosci. Letters** 12:349-354.
- Wood, P.L., Cheney, D.L., & Costa, E. (1979) A prolactin action on dopamine terminals modulates acetylcholine metabolism in striatum and hippocampus. **J. Neurochem.** 34:1053-1057.
- Wood, P.L., Cheney, D.L., & Costa, E. (1979) An investigation of whether septal gamma-aminobutyrate-containing interneurons are involved in the reduction in the turnover rate of acetylcholine elicited by substance P and β -endorphin in the hippocampus. **Neuroscience** 4:1479-1484.
- Wood, P.L., Peralta, E., Cheney, D.L., & Costa, E. (1979) The turnover rate of ACh in the hippocampus after lesion of hippocampal pyramidal cells with kainic acid. **Neuropharmacology** 18:519-524.
- Revuelta, A.V., Cheney, D.L., Wood, P.L., & Costa, E. (1979) GABAergic mediation in the inhibition of hippocampal acetylcholine turnover rate elicited by delta 9-tetrahydrocannabinol. **Neuropharmacology** 18:525-530.

1980

- Hong, J.S., Wood, P.L., Gillin, J.C., Yang, H.Y.T., & Costa, E. (1980) Changes of hippocampal met-enkephalin content after recurrent motor seizures. **Nature** 285:231-232.
- Hong, J.S., Wood, P.L., Gillin, J.C., Yang, H.Y.T., & Costa, E. (1980) Recurrent convulsions and hippocampal met(5)-enkephalin content. **Adv. Biochem. Psychopharmacol.** 22:385-397.
- Wood, P.L. & Stotland, L.M. (1980) Actions of enkephalin, mu and partial agonist analgesics on acetylcholine turnover in rat brain. **Neuropharmacology** 19:975-982.
- Wood, P.L., Stotland, L.M., Richard, J.W. & Rackham, A. (1980) Actions of mu, kappa, sigma, delta and agonist/antagonist opiates on striatal dopaminergic function. **J. Pharmacol. Exp. Ther.** 215:697-703.
- Wood, P.L. & Boegman, R.J. (1980) Axonal transport of [³H]cholesterol derived from [³H]leucine in the sciatic nerve. **FEBS Letters** 115:110-112.

1981

- Boegman, R.J. & Wood, P.L. (1981) Axonal transport in dystrophic hamsters. **Can. J. Physiol. Pharmacol.** 59:202- 204.
- Wood, P.L., Cheney, D.L. & Costa, E. (1981) Interactions of neuropeptides with cholinergic septal-hippocampal pathway: Indication for a possible trans-synaptic regulation. **Adv. Behav. Biol.** 25:715-722.
- Wood, P.L. & Rackham, A. (1981) Actions of kappa, sigma and partial mu narcotic receptor agonists on rat brain acetylcholine turnover. **Neurosci. Letters** 23:75-80.
- Wood, P.L., Rackham, A. & Richard, J. (1981) Spinal analgesia: Comparison of the mu agonist morphine and the kappa agonist ethylketazocine. **Life Sci.** 28:2119-2125.
- Rackham, A., Therriault, M., & Wood, P.L. (1981) Substance P: Evidence for spinal mediation of some behavioral effects. **Neuropharmacology** 20:753-755.
- Hudgin, R.L., Charleson, S.E., Zimmerman, M., Mumford, R., & Wood, P.L. (1981) Enkephalinase: Selective peptide inhibitors. **Life Sci.** 29:2593-2601.
- Haubrich, D.R., Williams, M., Yarbrough, G.G. & Wood, P.L. (1981) 2-Chloroadenosine inhibits brain acetylcholine turnover *in vivo*. **Can. J. Physiol. Pharmacol.** 59:1196-1198.
- Wood, P.L., Charleson, S.E., Lane, D. & Hudgin, R.L. (1981) Multiple opiate receptors : Differential binding of mu, kappa and delta agonists. **Neuropharmacology** 20:1215-1220.
- Rackham, A., Wood, P.L., & Hudgin, R.L. (1981) Kyotorphin (tyrosine-arginine): Further evidence for enkephalin release. **Life Sci.** 30:1337-1342.

1982

- Wood, P.L. & Charleson, S. (1982) High affinity [³H]ethylketazocine binding: Evidence for specific kappa receptors. **Neuropharmacology** 21:215-219.

- Wood, P.L. & Peloquin, A. (1982) Increases in choline levels in rat brain elicited by meclofenoxate. **Neuropharmacology** 21:349-354.
- Wood, P.L. (1982) Multiple opiate receptors: Support for unique mu, delta and kappa sites. **Neuropharmacology** 21:487-497.
- Wood, P.L. (1982) A selected ion monitoring assay for dopamine and its metabolites using negative chemical ionization. **Biomed. Mass Spec.** 9:302-306.
- Lal, S., Nair, N.P.V., Iskander, H.L., Etienne, P. Wood, P.L., Schwartz, G, & Guyda, H. (1982) Effect of domperidone on apomorphine-induced growth hormone secretion in normal men. **J. Neural trans.** 54:75-84.
- Wood, P.L. (1982) Phasic enkephalinergic modulation of nigrostriatal dopamine metabolism: Potentiation with enkephalinase inhibitors. **Eur. J. Pharmacol.** 82:119-120.
- Wood, P.L. (1982) Actions of GABAergic agents on dopamine metabolism in the nigrostriatal pathway of the rat. **J. Pharmacol. Exp. Ther.** 222:674-679.
- Wood, P.L., Etienne, P., Lal, S., Gauthier, S., Cajal, S., & Nair, N.P.V. (1982) Reduced lumbar CSF somatostatin levels in Alzheimer's disease. **Life Sci.** 31:2073-2079.
- Wood, P.L., Richard, J.W. & Thakur, M. (1982) Mu opiate isoreceptors: Differentiation with kappa agonists. **Life Sci.** 31:2313-2317.
- Nair, N.P.V., Lal, S., Iskander, H.L., Etienne, P., Wood, P.L., & Guyda, H. (1982) Effect of sulpiride an atypical neuroleptic, on apomorphine-induced growth hormone secretion. **Brain Res Bull.** 8:587-591.
- Wood, P.L. & Richard, J.W. (1982) GABAergic regulation of the substantia innominata-cortical cholinergic pathway. **Neuropharmacology** 21:969-972.
- Wood, P.L., Nair, N.P.V. & Bozarth, M. (1982) Striatal 3-methoxytyramine as an index of dopamine release: Effects of electrical stimulation. **Neurosci. Letters** 32:291-294.
- Wood, P.L., Richard, J.W., Pilapil, C., & Nair, N.P.V. (1982) Antagonists of excitatory amino acids and cyclic guanosine monophosphate in cerebellum. **Neuropharmacology** 21:1235-1238.
- Suranyi-Cadotte, B.E., Wood, P.L., Nair, N.V.P. & Schwartz, G. (1982) Normalization of platelet [³H]imipramine binding in depressed patients during remission. **Eur. J. Pharmacol.** 85:357-358.
- Wood, P.L. & Richard, J.W. (1982) Morphine and nigrostriatal function in the rat and mouse: Role of nigral and striatal opiate receptors. **Neuropharmacology** 21:1305-1310.
- Wood, P.L., Etienne, P. Lal, S. & Nair, N.P.V. (1982) GABAergic regulation of nigrostriatal neurons: Coupling of benzodiazepine and GABA receptors. **Prog. Neuro-Psychopharmacol. Biol. Psych.** 6:471- 474.
- Robitaille, Y. Wood, P.L., Etienne, P., Lal, S., Finlayson, M.H., Gauthier, S., & Nair, N.P.V. (1982) Reduced cortical choline acetyltransferase activity in Gerstmann-Straussler syndrome. **Prog. Neuro-Psychopharmacol. Biol. Psych.** 6:529-531.
- Lal, S., Nair, N.P.V., Iskandar, H.L., Thavundayil, J.X., Etienne, P., Wood, P.L. & Guyda, H. (1982) Drug-induced growth hormone and prolactin responses in schizophrenia research. **Prog. Neuro-Psychopharmacol. Biol. Psych.** 6:631-637.

1983

- Wood, P.L., Suranyi-Cadotte, B., Schwartz, G. & Nair, N.P.V. (1983) Platelet [³H]imipramine binding and red blood cell choline in affective disorders. Indications of heterogenous pathogenesis. **Biol. Psychiat.** 18:715-719.
- Wood, P.L. & Pilapil, C. (1983) Kappa opiate receptor sites: Unique heat stability in vitro. **Eur. J. Pharmacol.** 88:281-282.
- Wood, P.L., Nair, N.P.V., Lal, S. & Etienne, P. (1983) Buspirone: A potential atypical neuroleptic. **Life Sci.** 33:269-273.
- Wood, P.L. & Pasternak, G.C. (1983) Specific mu-2 isoreceptor regulation of nigrostriatal neurons: in vivo evidence with naloxonazine. **Neurosci. Letters** 37:291-293.
- Yassa, R., Schwartz, G & Wood, P.L. (1983) Lithium intraerythrocyte levels in tardive dyskinesia: A preliminary report. **Biol. Psychiat.** 18:825-828.
- Suranyi-Cadotte, B.E., Wood, P.L., Schwartz, G. & Nair, N.P.V. (1983) Altered platelet [³H]imipramine binding in schizoaffective and depressive disorders. **Biol. Psychiat.** 18:923-928.
- Wood, P.L., Sanschagrin, D., Richard, J.W. & Thakur, M. (1983) Multiple opiate receptor affinities of kappa and agonist/antagonist analgesics: In vivo assessment. **J. Pharmacol. Exp. Ther.** 226:545-550.
- Wood, P.L., McQuade, P., Richard, J.W. & Thakur, M. (1983) Agonist/antagonist analgesics and nigrostriatal dopamine metabolism in the rat: Evidence for receptor dualism. **Life Sci.** 33:759-762.
- Pilapil, C. & Wood, P.L. (1983) [³H]SKF-10047 binding to rat brain membranes: Evidence for kappa isoreceptors. **Life Sci.** 33 (Suppl. I):263-265.
- Wood, P.L., Suranyi-Cadotte, B.E., Nair, N.P.V., LaFaille, F. & Schwartz, G. (1983) Lack of association of platelet [³H]imipramine binding sites and serotonin uptake in control and depressed patients. **Neuropharmacology** 22:1211-1214.
- Wood, P.L. (1983) Opiate regulation of CNS dopaminergic pathways: Methodology, receptor types, regional variations and species differences. **Peptides** 4:595-601.
- Wood, P.L., McQuade, P.S., Etienne, P., Lal, S. & Nair, N.P.V. (1983) Differential actions of classical and atypical neuroleptics on mouse nigrostriatal neurons. **Prog. Neuro-Psychopharmacol. Biol. Psychiat.** 7:765-768.
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- Brooke Lawson (MSc, 2015-2016): Lipidomics of Alzheimer's disease lymphoblasts.
- Nicole Holderman (MSc, 2016-2017): Lipidomics of RCDP lymphoblasts.
- Aaron W. Beger (PhD. 2019-2021): Human brain lipidomics: Investigating the potential of formalin-fixed donors as a model for study.

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- Dr. J.F. Hyde : Dissertation, 1985
- Dr. P. Callahan : Dissertation, 1986
- Dr. G. Rowan : Dissertation, 1989
- Dr. J. Janik : Dissertation, 1990
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- Lewei Rui (M.Sc.) Dissertation, 2010
- Dr. Brooke Lawson Dissertation, 2020
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- Dr. R. Ryan : 1990-1993
- Dr. D. Goodenowe: 1993 -1995
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Patents

- Retinal Ganglion Cells as a Model for a Retinal and Cerebral Ischemia and Glaucoma (C.M. Bitler, A. Meyer-Franke, P.L. Wood): US 6,379,882 B1.

- Bis-Benzimidazole Compounds and Analogs thereof for Inhibiting Cell Death (C. M. Bitler, P.L. Wood, D.T. Anstine, A. Meyer-Franke, Q. Zhao, M.A. Khan): US 6,541,486.
- Nitron Compounds, Pharmaceutical Compositions Containing The Same and Methods For Treating Inflammation and Neuropathic Pain (M.A. Khan, R. Upasani, P. Wood and T. Serafini) (PCT/US03/32883; EU #03 773 284.9)
- Compositions for treating ischemia-related neuronal damage (C.M. Bitler, P. Wood, D.T. Anstine, A. Meyer-Franke, Q. Zhao and M.A. Khan) (Serial #10/354,793)
- NMDA receptor modulators and uses thereof for the treatment of cognitive and other conditions. (Amin Khan, Joseph Moskal, Paul Wood): US 2008-98088P; WO 2010033757.
- Plasmalogen compounds, pharmaceutical compositions containing the same and methods for treating diseases of aging. (Amin M. Kahan, Paul L. Wood, Dayan Goodenowe, Rishikesh Mankidy, Pearson Ahiahonu): WO 2020/071988 A1, USPTO 9334235
- Methods for the synthesis of plasmalogens and plasmalogen derivatives, and therapeutic uses thereof. (M. Amin Khan, Paul L. Wood, Dayan Goodenowe) CA 2812178C
- Methods for the synthesis of ¹³C labeled iodotridecane and use as a reference standard (M. Amin Khan, Paul L. Wood, Dayan Goodenowe) USPTO 9012704.
- Methods for the synthesis of ¹³C labeled DHA and use as a reference standard (M. Amin Khan, Paul L. Wood, Dayan Goodenowe) USPTO 20140336397
- Methods for the synthesis of ¹³C labeled plasmalogen (M. Amin Khan, Paul L. Wood, Dayan Goodenowe) USPTO 20140323749
- Methods for the synthesis of ¹³C labeled iodotridecane and use as a reference standard (M. Amin Khan, Paul L. Wood, Dayan Goodenowe) USP+TO 20140309464
- Identification and use of very long chain dicarboxylic acids for disease diagnosis, chemoprevention, and treatment. (Paul L. Wood) USPTO 15/284,219