

---

## Bibliography

---

- Abdel-Hafez, S.H., Selenium containing heterocycles, Synthesis, anti-inflammatory, analgesic and anti-microbial activities of some new 4-cyanopyridazine-3(2H) selenone derivatives, *Eur. J. Med. Chem.*, 43, 1971-1977, 2008.
- Aboul-Enein, M.N., El-Azzouny, A.A., Attia, M.I., Maklad, Y.A., Amin, K.M., Abdel-Rehim, M. and El-Behairy, M.F., Design and synthesis of novel stiripentol analogues as potential anticonvulsants, *Eur. J. Med. Chem.*, 47, 360-369, 2012.
- Akhtar, T., Hameed, S., Al-Masoudi, N., Loddo, R. and Colla, P., In vitro antitumor and antiviral activities of new benzothiazole and 1,3,4-oxadiazole-2-thione derivatives, *Acta Pharm.*, 58, 135-149, 2008.
- Al-Soud, Y.A., Al-Sadoni, H.H., Saeed, B., Jaber, I.H., Beni-Khalid, M.O., Al-Masoudi, N.A., Abdul-Kadir, T., Colla, P.L., Busonera, B., Sanna, T. and Loddo, R., Synthesis and in vitro antiproliferative activity of new benzothiazole derivatives, *ARKIVOC*, 15, 225-238, 2008.
- Amit, T., Avramovich-Tirosh, Y., Youdim, M.B.H. and Mandel, S., Targeting multiple Alzheimer's disease etiologies with multimodal neuroprotective and neurorestorative iron chelators, *FASEB J.*, 22, 1296-1305, 2008.
- Anandakumaran, J., Sundararajan, M.L., Jeyakumar, T. and Uddin, M.N., Transition metal complexes of 4-aminobenzenesulfonamide 1,3-benzodioxole-5-carbaldehyde, synthesis, characterization and biological activities, *American Chemical Science Journal.*, 11, 1-14, 2016.
- Anderson, R.J., Cloudsdale, I.S., Lamoreaux, R.J., Schaefer, K. and Harr, J., Potentiating herbicidal compositions of auxin transport inhibitors and growth regulators, US Patent 6110869, 2000.
- Andreani, A., Burnelli, S., Granaiola, M. and Leoni A., New isatin derivatives with antioxidant activity, *Euro J. Med. Chem.*, 45, 1374-1378, 2010.
- Andreani, A., Burnelli, S., Granaiola, M., Leoni, A., Locatelli, A., Morigi, R., Rambaldi, M., Varoli, L., Calonghi, N., Cappadone, C., Farruggia, G., Zini, M., Stefanelli, C., Masotti, L., Radin, N. S. and Shoemaker, R. H., New antitumor imidazo[2,1-b]thiazole guanylhydrazones and analogues, *J. Med. Chem.*, 51, 809-816, 2008.
- Apelt, J., Grassmann, S., Ligneau, X., Pertz, H.H., Ganellin, C.R., Arrang, J.M., Schwartz, J.C., Schunack, W. and Stark, H., Search for histamine H<sub>3</sub> receptor antagonists with combined inhibitory potency at N-tau-methyltransferase, ether derivatives, *Pharmazie*, 60, 97-106, 2005.
- Arias, M.C., Tournaire, M.C., Cane, A., Launay, J.M., Barritault, D. and Medvedev, A., Inhibition of brain mitochondrial monoamine oxidases by the endogenous compound 5-hydroxyoxindole, *Biochem. Pharmacol.*, 67, 977-979, 2004.

## Bibliography

---

- Atack, J.R., Perry, E.K., Bonham, J.R., Perry, R.H., Tomlinson, B.E., Blessed, G. and Fairbairn, A., Molecular forms of acetylcholinesterase in senile dementia of Alzheimer type: selective loss of the intermediate (10S) form, *Neurosci. Lett.*, 40, 199-204, 1983.
- Atalay, T. and Akgemci, E.G., The chemistry of transition metal complexes of semicarbazones and thiosemicarbazones, *Tr. J. Chem.*, 22, 123-128, 1998.
- Avramovich-Tirosh, Y., Amit, T., Bar-Am, O., Zheng, H., Fridkin, M. and Youdim, M.B., Therapeutic targets and potential of the novel brain-permeable multifunctional iron chelator-monoamine oxidase inhibitor drug, M30, for the treatment of Alzheimer's disease, *J. Neurochem.*, 100, 490-502, 2007.
- Azam, F., Ikskas, I.A., Khokra, S.L., and Prakash, O., Synthesis of some novel N4-(naphtha[1,2-d]thiazol-2-yl) semicarbazides as potential anticonvulsants, *Eur. J. Med. Chem.*, 44, 203-211, 2009.
- Azam, F., Prasad, M.V.V. and Thangavel, N., Structure-based design, synthesis, and molecular modeling studies of 1-(benzo[d]thiazol-2-yl)-3-(substituted aryl) urea derivatives as novel anti-Parkinsonian agents, *Med. Chem. Res.*, 21, 2630-2643, 2012.
- Badorc, A., Bordes, M.F., de Cointet, P., Savi P. and Bernat A. New orally active non-peptide fibrinogen receptor (GpIIb-IIIa) antagonists, Identification of Ethyl 3-[N-[4-[4-Amino[(ethoxycarbonyl)imino]methyl]phenyl]-1,3-thiazol-2-yl]-N-[1(ethoxycarbonyl)methyl]piperid-4-yl]amino]propionate (SR 121787) as a potent and long-acting antithrombotic agent, *J. Med. Chem.*, 40, 3393-3401, 1997.
- Banerjee, S., Mondal, S., Chakraborty, W., Sen, S., Gachhui, R., Butcher, R.J., Slawin, A.M. Z., Mandal, C. and Mitra, S., Syntheses, X-ray crystal structures, DNA binding, oxidative cleavage activities and antimicrobial studies of two Cu(II) hydrazone complexes, *Polyhedron.*, 28 (13), 2785-2793, 2009 .
- Barbazan, P., Carballo, R., Covelo, B., Lodeiro C., Lima, J. C. And Vazquez-Lopez, E. M. Synthesis, Characterization, and Photophysical Properties of 2-Hydroxybenzaldehyde [(1E)-1-pyridin-2-ylethylidene]hydrazone and Its Rhenium(I) Complexes, *Eur. J. Inorg. Chem.*, 2713-2720, 2008.
- Bartolini, M., Bertucci, C., Cavrini, V. and Andrisano. V., Beta-Amyloid aggregation induced by human acetylcholinesterase: Inhibition studies, *Biochem. Pharmacol.*, 65, 407-416, 2003.
- Basuli, F, Peng, S.M. and Bhattacharya, S., Chemical control on the coordination mode of benzaldehyde semicarbazone ligands. Synthesis, structure, and redox properties of ruthenium complexes, *Inorg. Chem.*, 40, 1126-1133, 2001.
- Battaglia, V., Sanz, E., Salvi, M., Unzeta, M. and Toninello, A., Protective effect of PF9601N on mitochondrial permeability transition pore, *Cell. Mol. Life Sci.*, 63, 1440-1448, 2006.

## Bibliography

---

- Bell, F.W., Cantrell, A.S., Hogberg, M., Jaskunas, S.R. and Johansson, N.G., Jordan C.L., Kinnick, M.D., Lind, P., Morin, J.M.Jr. and Noreen, R., Phenethylthiazolethiourea (PETT) compounds, A new class of HIV-1 reverse transcriptase inhibitors, Synthesis and basic structure activity relationship studies of PETT analogs, *J. Med. Chem.*, 38, 4929-4936, 1995.
- Bergman, J., Lindstrom, J.O., Tilstam, U. The structure and properties of some indolic constituents in Couroupi-ta guianensis aubl. *Tetrahedron*, 41, 2879-2881, 1985.
- Bergman, J.M., Coleman, P.J., Cox, C., Hartman Lindsley, G.D.C., Mercer, S.P., Roecker, A.J. and Whitman, D.B., 2,5-Disubstituted piperidine orexin receptor antagonists, *PCT Int. Appl*, WO 2006127550, 2006.
- Bernard, S., Paillat, C., Oddos, T., Seman, M. and Milcent, R., Selective and potent monoamine oxidase type B inhibitors, substituted semicarbazones and acylhydrazones of aromatic aldehydes and ketones, *Eur. J. Med. Chem.*, 30, 471-482, 1995.
- Binda, C., Hubalek, F., Li, M., Herzig, Y., Sterling, J. and Edmondson, D.E., Crystal structures of monoamine oxidase B in complex with four inhibitors of the N-propargylaminoindan class, *J. Med. Chem.*, 47, 1767-1774, 2004.
- Birks, J. and Harvey, R.J., Donepezil for dementia due to Alzheimer's disease, *Cochrane Database Syst. Rev.*, 1, Cd001190, 2006.
- Bolea, I., Juarez-Jimenez, J., de Los Rios, C., Chioua, M., Pouplana, R., Luque, F.J., Unzeta, M., Marco-Contelles, J., Samadi, A., Synthesis, biological evaluation and molecular modelling of donepezil and N-[(5-(benzyloxy)-1-methyl-1H-indol-2-yl)methyl]-N-methylprop-2-yn-1-amine hybrids as new multipotent cholinesterase/monoamine oxidase inhibitors for the treatment of Alzheimer's disease, *J. Med. Chem.*, 54, 8251-8270, 2011.
- Bourne, Y., Taylor, P. and Marchot, P., Acetylcholinesterase inhibition by fasciculin: crystal structure of the complex, *Cell*, 83, 503-512, 1995.
- Bourne, Y., Taylor, P., Radic, Z. and Marchot, P., Structural insights into ligand interactions at the acetylcholinesterase peripheral anionic site, *EMBO J.*, 22, 1-12, 2003.
- Boyer, E.W., Shannon, M. The serotonin syndrome, *N. Engl. J. Med.*, 352, 1112-1120, 2005.
- Brehme, R., Enders, D., Fernandez, R. and Lassaletta, J.M., Aldehyde *N,N*-Dialkylhydrazones as Neutral Acyl Anion Equivalents, Umpolung of the Imine Reactivity, *Eur. J. Org. Chem.*, 2007, 5629-5660, 2007.
- Breinholt, J., Demuth, H., Heide, M., Jensen, G.W., Moller, I.L., Nielsen, R.I., Olsen, C.E. and Rosendahl, C.N., Preisatin (5-(3-Methyl-2-butenyl)-indole-2,3-dione), an Antifungal Isatin Derivative from *Chaetomium globosum*, *Acta Chem. Scand.*, 50, 443-445, 1996.

---

## Bibliography

---

- Brimijoin, S. Molecular forms of acetylcholinesterase in brain, nerve and muscle: nature, localization and dynamics, *Prog. Neurobiol.*, 21, 291-322, 1983.
- Brown, J.N. and Agarwal, K.C., 2-Formyl-5-benzylpyridine thiosemicarbazone, *Acta Crystallogr., Sect. B*34, 2038-2040, 1978.
- Burger, A. and Sawhey, S.N., Antimalarials. III. Benzothiazole amino alcohols, *J. Med. Chem.*, 11, 270-273, 1968.
- Çakır, B., Dag, O., Yıldırım, E., Erol, K. and Sahin, M. F., Synthesis and anticonvulsant activity of some hydrazones of 2-[(3H)-oxobenzoxazolin-3-yl-aceto]hydrazide, *J. Fac. Pharm. Gazi.*, 18, 99-106, 2001.
- Cakir, B., Yildirim, E., Ercanli, T., Erol, K. and Fethi, S.M., Synthesis and anticonvulsant activity of some (2/4-substituted) benzaldehyde (2-oxobenzothiazolin-3-yl)acetohydrazones, *II Farmaco*, 54, 842-845, 1999.
- Cao, Z., Qiu, F., Wang, Q., Cao, G., Zhuang, L., Shen, Q., Xu, X., Wang, J., Chen, Q. and Yang, D., Synthesis of azo benzothiazole polymer and its application of 1 x 2 Y-branched and 2 x 2 MacheZehnder interferometer switch, *Optik-Int J. Light Elec. Opt.*, 124, 4036-4040, 2013.
- Carradori, S., Secci, D., Bolasco, A., De Monte, C. And Yanez, M., Synthesis and selective inhibitory activity against human COX-1 of novel 1-(4-substituted-thiazol-2-yl)-3,5-di(hetero)aryl-pyrazoline derivatives, *Arch. Pharm. (Weinheim)*, 345, 973-979, 2012.
- Carter, J.S., Kramer, S., Talley, J.J., Penning T., Collins P., Graneto, M.J., Seibert, K., Koboldt, C.M., Masferrer, J. and Zweifel, B., Synthesis and activity of sulfonamide-substituted 4,5 diaryl thiazoles as selective cyclo oxygenase-2 inhibitors, *Bioorg. Med. Chem. Lett.*, 9, 1171-1174, 1999.
- Carvajal, F.J. and Inestrosa, N.C., Interactions of AChE with A $\beta$  Aggregates in Alzheimer's Brain: Therapeutic Relevance of IDN 5706, *Front Mol. Neurosci.*, 2011, 4, 1-10.
- Casas, J.S., García-Tasende, M.S. and Sordo, J. Corrigendum to Main group metal complexes of semicarbazones and thiosemicarbazones. A structural review., *Coord. Chem. Rev.*, 209, 197-261, 2000.
- Castro, A. and Martinez, A., Peripheral and dual binding site acetylcholinesterase inhibitors: Implications in treatment of Alzheimer's disease, *Mini Rev. Med. Chem.*, 1, 267-272, 2001.
- Castro, A. and Martinez, A., Targeting Beta-amyloid Pathogenesis through Acetylcholinesterase inhibitors, *Curr. Pharm. Des.*, 12, 4377-4387, 2006.
- Chen, Y.-F., Lin, Y.-C., Huang, P-K., Chanc, H-C., Kuo, S-C., Lee, K-H. and Huang, L-J., Design and synthesis of 6,7-methylenedioxy-4-substituted phenylquinolin-2(1H)-one

## Bibliography

---

- derivatives as novel anticancer agents that induce apoptosis with cell cycle arrest at G2/M phase, *Bioorg. Med. Chem.*, 21, 5064-5075, 2013.
- Cheung, J., Rudolph, M.J., Burshteyn, F., Cassidy, M.S., Gary, E.N., Love, J., Franklin, M.C. and Height, J.J., Structures of human acetylcholinesterase in complex with pharmacologically important ligands, *J. Med. Chem.*, 55, 10282-10286, 2012.
- Chikhale, H., Lade, K., Joshi, P., Kudale, S., Nerkar, A. and Sawant, S., In silico design, synthesis & pharmacological screening of some quinazolinones as possible GABAA receptor agonists for anticonvulsant activity, *Int. J. Pharm. Pharm. Sci.*, 4, 466-469, 2012.
- Chimenti, F., Bizzarri, B., Bolasco, A., Secci, D., Chimenti, P., Granese, A., Carradori, S., D'Ascenzio, M., Lilli, D. and Rivanera, D., Synthesis and biological evaluation of novel 2,4-disubstituted-1,3-thiazoles as anti-Candida spp. Agents, *Eur J. Med. Chem.*, 46, 378-382, 2011.
- Chocholova, L. and Kolinova, M., Effect of isatin on audiogenic seizures in rats and its relationship to electrographic and behavioral phenomena, *Physiol. Bohemoslov.*, 28, 495-502, 1979.
- Chothia, C. and Leuzinger, W., Acetylcholinesterase: the structure of crystals of a globular form from the electric eel, *J. Mol. Biol.*, 97, 55-60, 1975.
- Colotta, V., Catarzi, D., Varano, F., Capelli, F., Lenzi, O., Filacchioni, G., Martini, C., Trincavelli, L., Ciampi, O., Pugliese, A.M., Pedata, F., Schiesaro, A., Morizzo, E. and Moro, S., New 2-Arylpyrazolo[3,4-c]quinoline Derivatives as Potent and Selective Human A<sub>3</sub> Adenosine Receptor Antagonists. Synthesis, Pharmacological Evaluation, and Ligand-Receptor Modeling Studies, *J. Med. Chem.*, 50, 4061-4074, 2007.
- Consumer Reports, Drug Effectiveness Review Project, Evaluating Prescription Drugs Used to Treat: Alzheimer's Disease Comparing Effectiveness, Safety, and Price, 2012.
- Copping, L.G., Kerry, J.C., Watkins, T.I., Wllis, R.J. and Bryan, H., Compositions and method of combatting pest employing substituted benzophenone hydrazones or semicarbazones, US Patent 4394387, 1983.
- Cutillas, B., Ambrosio, S. and Unzeta, M., Neuroprotective effect of the monoamine oxidase inhibitor PF9601N on rat nigral neurons after 6-hydroxydopamine-striatal lesion, *Neurosci. Letters.*, 329, 165-168, 2002.
- D. Sriram, P. Yogeeshwari, R. Thirumurugan, Antituberculous activity of some aryl semicarbazone derivatives, *Bioorg. Med. Chem. Lett.*, 14, 3923-3924, 2004.
- Da Silva, J.F.M., Garden, S.J., Da, C. and Pinto, A., The chemistry of isatin: a review from 1975 to 1999, *J. Braz. Chem. Soc.*, 12, 273-324, 2001.

## Bibliography

---

- Dang, T.T., Dang, T.T. and Langer, P., One-pot synthesis of pyrazole-5-carboxylates by cyclization of hydrazone 1,4-dianions with diethyl oxalate, *Tetrahedron Lett.*, 48, 3591-3593, 2007.
- De Ferrari, G.V., Canales, M.A., Shin, I., Weiner, L.M., Silman, I. and Inestrosa, N.C., A structural motif of acetylcholinesterase that promotes amyloid beta-peptide fibril formation, *Biochemistry*, 40, 10447-10457, 2001.
- Deng, X. and Mani, N.S., Regioselective Synthesis of 1,3,5-Tri- and 1,3,4,5-Tetrasubstituted Pyrazoles from N-Arylhydrazones and Nitroolefins, *J. Org. Chem.*, 73, 2412-2415, 2008,
- DeSimone, R.W., Currie, K.S., Mitchell, S.A., Darrow, J.W. and Pippin, D.A., Privileged structures, applications in drug discovery, *Comb. Chem. High T. Scr.*, 7, 473-494, 2004.
- Dinamarca, M.C., Sagal, J.P., Quintanilla, R.A., Godoy, J.A., Arrazola, M.S. and Inestrosa, N.C., Amyloid-beta-acetylcholinesterase complexes potentiate neurodegenerative changes induced by the abeta peptide. Implications for the pathogenesis of Alzheimer's disease, *Mol Neurodegener*, 5, 4-18, 2010.
- Dolle, R.E., Discovery of enzyme inhibitors through combinatorial chemistry, *Annu Rep Comb. Chem. Mol. Diver.*, 2, 93-127, 1999.
- Dunham, M.S. and Miya, T.A., A note on a simple apparatus for detecting neurological deficit in rats and mice, *J. Amer. Pharm. Ass. Sci. Ed.*, 46, 208-209, 1957.
- Echevarria, A. and Nascim ento, M., NMR Spectroscopy, Hammett Correlations and Biological Activity of Some Schiff Bases Derived from Piperonal, *J. Braz. Chem. Soc.*, 10, 60-64, 1999.
- El-Gendy, A.A., Said, M.M., Ghareb, N., Mostafa, Y.M. and El-Ashry, E.S.H., Activity of Functionalized Indole-2-carboxylates, Triazino- and Pyridazino-indoles, *Arch. Pharm. Chem. Life. Sci.*, 341, 294-300, 2008
- Ellman, G.L., Courtney, K.D., Andres Jr., V. and FeatherStone, R.M., A new and rapid colorimetric determination of acetylcholinesterase activity, *Biochem. Pharmacol.*, 7, 88-95, 1961.
- El-Subbagha, H.I., Abadi A.H. and Lehmann, J., Synthesis and antitumor activity of ethyl 2-Substituted-aminothiazole-4-carboxylate analogs, *Arch. Pharm. Pharm. Med. Chem.*, 332, 137-142, 1999.
- Emirdag-Ozturk, S., Karayildirim, T. and Anil, H., Synthesis of egnol derivatives and their antimicrobial activities, *Bioorg. Med. Chem.*, 19, 1179-1188, 2011.
- Erdmann, O. L., "Untersuchungen über den Indigo", *Journal fur Praktische Chemie*, 19, 321-362, 1840.
- Ergenc, N. and Gunay, N.S., Synthesis and antidepressant evaluation of new 3-phenyl-5-sulfonamidoindole derivatives, *Eur. J. Med. Chem.*, 33, 143-148, 1998.

---

## Bibliography

---

- Ergenc, N., Capan, G., Gunay, N.S., Ozkirimli, S., Gungor, M., Ozbey S. and Kendi, E., Synthesis and hypnotic activity of new 4-thiazolidinone and 2-thioxo-4,5-imidazolidinedione derivatives, *Arch. Pharm. Pharm. Med. Chem.*, 332, 343-347, 1999.
- Fan, X., He, Y., Wang, Y., Zhang, X. and Wang, J., A novel and practical synthesis of 2-benzoylbenzothiazoles and 2-benzylbenzothiazoles, *Tetr. Lett.*, 52, 899-902, 2011.
- Farrar, V.A., Ciechanowicz, M.R., Grochowski, J., Serda, P., Pilati, T., Filippini, G., Hinko, C.N., El-Assadi, A., Moore, J.A., Edafiogho, I.O., Andrews, C.W., Cory, M., Nicholson, J.M. and Scott, J.R., Synthesis and calculated log P correlation of imidoxy anticonvulsants, *J. Med. Chem.*, 36, 3517-3535, 1993.
- Fiehn, O., Reemtsma, T. and Jekel, M., Extraction and analysis of various benzothiazoles from industrial wastewater, *Anal. Chim. Acta.*, 295, 297-305, 1994.
- Filak, L., Rokob, T.A., Vasko, G.A., Egyed, O., Gomory, A., Riedl, Z. and Hajos, G., A New Cyclization to Fused Pyrazoles Tunable for Pericyclic or Pseudopericyclic Route, An Experimental and Theoretical Study, *J. Org. Chem.*, 73, 3900-3906, 2008.
- Fyer, A.J. and Gorman, J.M., Phenelzine in social phobia, *J. Clin. Psychophar.*, 6, 93-98, 1986.
- Gal, S., Zheng, H., Fridkin, M. and Youdim, M.B., Novel multifunctional neuroprotective iron-chelator-monoamine oxidase inhibitor drugs for neurodegenerative diseases. In vivo selective brain monoamine oxidase inhibition and prevention of MPTP-induced striatal dopamine depletion, *J. Neurochem.*, 95, 79-88, 2005.
- Gan, C., Zhou L., Zhao, Z. and Wang, H., Benzothiazole Schiff-bases as potential imaging agents for b-amyloid plaques in Alzheimer's disease, *Med. Chem. Res.*, 22, 4069-4074, 2013.
- Garraffo, H.M., Spande, T.F., Daly, J.W., Baldessari, A. and Gros, E.G., Alkaloids from Bufonid Toads (*Melanophryniscus*), *J. Nat. Prod.*, 56, 357-373, 1993.
- Geha, R.M., Rebrin, I., Chen, K. and Shih, J.C., Substrate and inhibitor specificities for human monoamine oxidase A and B are influenced by a single amino acid, *J. Biol. Chem.*, 276, 9877-9882, 2001.
- Ghavtadze, N., Frohlich, R. and Wurthwein, E.U., 2H-Pyrrole Derivatives from an Aza-Nazarov Reaction Cascade Involving Indole as the Neutral Leaving Group, *Eur. J. Org. Chem.*, 3656-3667, 2008.
- Glover, V., Halket, J.M and Watkins P.J., Isatin Identity with the purified endogenous monoamine oxidase inhibitor tribulin, *J. Neurochem.*, 51, 656-659, 1988.
- Goodsell, D.S., Morris, G.M. and Olson, A.J., Automated docking of flexible ligands: Applications of AutoDock, *J. Mol. Recog.*, 9, 1-5, 1996.

## Bibliography

---

- Gottowik, J., Cesura, A.M., Malherbe, P., Lang, G. and Prada, M.D., Characterisation of wild-type and mutant forms of human monoamine oxidases A and B expressed in a mammalian cell line, *FEBS Lett.*, 317, 152-156, 1993.
- Graefe, U., Schade, W. and Fleck, Microbial manufacture of 6-(3'-methylbuten-2',3'-yl)-isatine, W. Ger (East) DD 241749, 1986.
- Grafe, U. and Radics, L., Isolation and structure elucidation of 6-(3'-methylbuten-2'-yl)isatin, an unusual metabolite from *Streptomyces albus*, *J. Antibiotics*, 39, 162-163, 1986.
- Green, A.R. and Kelly, P.H., Evidence concerning the involvement of 5-hydroxytryptamine in the Locomotor activity produced by amphetamine or tranylcypromine plus L-DOPA, *Br. J. Pharmac.*, 57, 141-147, 1976.
- Greenblatt, H.M., Dvir, H., Silman, I. and Sussman, J.L., Acetylcholinesterase: a multifaceted target for structure-based drug design of anticholinesterase agents for the treatment of Alzheimer's disease, *J. Mol. Neurosci.*, 20, 369-384, 2003.
- Greig, N.H., Utsuki, T., Ingram, D.K., Wang, Y., Pepeu, G., Scali, C., Yu, Q.S., Mamczarz, J., Holloway, H.W., Giordano, T., Chen, D., Furukawa, K., Sambamurti, K., Brossi, A. and Lahiri, D.K., Selective butyrylcholinesterase inhibition elevates brain acetylcholine, augments learning and lowers Alzheimer beta-amyloid peptide in rodent, *Proc. Natl. Acad. Sci. USA.*, 102(47), 17213-17218, 2005.
- Grimsby, J., Chen, K., Wang, L.J., Lan, N.C. and Shin, J.C., Human Monoamine oxidase A and B genes exhibit identical exon-intron organization, *Proc. Natl. Acad. Sci. USA*, 88, 3637-3641, 1991.
- Guay, D.R., Rasagiline (TVP-1012): a new selective monoamine oxidase inhibitor for Parkinson's disease, *Am. J. Geriatr. Pharmacother.*, 4, 330-346, 2006.
- Gunawardana, G.P., Kohmoto, S., Burres, N.S., New cytotoxic acridine alkaloids from two deep water marine sponges of the family Pachastrellidae, *Tetrahedron Lett.*, 30, 4359-4362, 1989.
- Gunawardana, G.P., Kohmoto, S., Gunesakara, S.P., McConnel, O.J. and Koehn, F.E., Dercitine, a new biologically active acridine alkaloid from a deep water marine sponge, *Dercitus* sp, *J. Am. Chem. Soc.*, 110, 4856-4858, 1988.
- Guo, Y. and Chen, F., TLC-UV-spectrophotometric and TLC- scanning determination of isatin in leaf of *Isatis*. *Zhongcaoyao*, 17, 8-11, 1986.
- Gurupadayya, B.M. , Gopal, M., Padmeshali, B. and Vaidya, V.P. , Synthesis and biological activities of fluorobenzothiazoles, *Ind. J. Heterocy. Chem.*, 15, 169-172, 2005.
- Gwon, S., Lee, S., Son, Y. and Kim, S., Benzothiazole and indole based dye sensor, Optical switching functions with pH stimuli, *Fiber Polym.*, 13, 1101-1104, 2012.

## Bibliography

---

- Hadden, M.K., Galam, L., Gestwicki, J.E., Matts, R.L. and Blagg, B.S.J., Derrubone, an inhibitor of the Hsp90 protein folding machinery, *J. Nat. Prod.*, 70, 2014-2018, 2007.
- Halket, J.M., Watkins, P.J., Przyborowska, A., Goodwin, B.L., Clow, A., Glover, V. and Sandler, M., Isatin (indole-2,3-dione) in urine and tissues. Detection and determination by gas chromatography-mass spectrometry, *J. Chromatogr.*, 562, 279-287, 1991.
- Hamaue N, Minami M, Kanamaru Y. Endogenous monoamine oxidase (MAO) inhibitor (tribulin-like activity) in the brain and urine of stroke-prone SHR. *Biogen. Amines*, 8, 401-412, 1992.
- Hamaue, N., Minami, M and Kanamaru Y., Identification of isatin, an endogenous MAO inhibitor, in the brain of stroke-prone SHR, *Biogen. Amines*, 10, 99-110, 1994.
- Hare, M.L.C., Tyramine oxidase. I. A new enzyme system in liver, *Biochem. J.*, 22, 968-979, 1928.
- Harel, M., Kleywegt, G.J., Ravelli, R.B.G., Silman, I. and Sussman, J.L., Crystal structure of an acetylcholinesterase-fasciculin complex: interaction of a three-fingered toxin from snake venom with its target, *Structure*, 3, 1355-1366, 1995.
- Harel, M., Kryger, G., Rosenberry, T.L., Mallender, W.D., Lewis, T., Fletcher, R.J., Guss, J.M., Silman, I. and Sussman, J.L., Three-dimensional structures of *Drosophila melanogaster* acetylcholinesterase and of its complexes with two potent inhibitors, *Protein Sci.*, 2000, 9, 1063-1072, 2000.
- Hargrave, K.D., Hess, F.K. and Oliver, J.T., N-(4-substituted thiazolyl) oxamic acid derivatives, new series of potent orally active antiallergy agents, *J. Med. Chem.*, 26, 1158-1163, 1983.
- Heller, M. and Hanahan, D.J., Human erythrocyte membrane bound enzyme acetylcholinesterase, *Biochim. Biophys. Acta*, 17, 251-272, 1972.
- Henriksen, G., Hauser, A.I., Westwell, A.D., Yousefi, B.H. Schwaiger, M., Drzega, A. and Wester, H.J., Metabolically stabilized benzothiazoles for imaging of amyloid plaques, *J. Med. Chem.*, 50, 1087-1089, 2007.
- Himaja, M., Vandana, K., Ranjitha, A., Ramana, M.V. and Asif, K., Synthesis, docking studies and antioxidant activity of 1,3-benzodioxole-5-carboxyl amino acids and dipeptides, *Int. Res. J. Pharm.*, 2, 57-61, 2011.
- Horton, D.A., Bourne, G.T. and Smythe, M.L., The combinatorial synthesis of bicyclic privileged structures or privileged substructures, *Chem. Rev.*, 103, 893-930, 2003.
- <http://clinicaltrials.gov/NCT01354691>, <http://clinicaltrials.gov/NCT01429623>
- <http://www.drugs.com/pro/rilutek.html>.
- Huang, K.H., Veal, J.M., Fadden, R.P., Rice, J.W., Eaves, J., Strachan, J.P., Barabasz, A. F., Foley B.E., Barta, T.E., Ma, W., Silinski, M.A., Hu, M., Partridge, J.M., Scott, A.,

---

## Bibliography

---

- DuBois, L.G., Freed, T., Steed, P.M., Ommen, A.J., Smith, E.D., Hughes, P.F., Woodward, A.R., Hanson, G.J., McCall, W.S., Markworth, C.J., Hinkley, L., Jenks, M., Geng, L., Lewis, M., Otto, J., Pronk, B., Verleysen, K. and Hall, S.E., Discovery of novel 2-aminobenzamide inhibitors of heat shock protein 90 as potent, selective and orally active antitumor agents, *J. Med. Chem.*, 52, 4288-4305, 2009.
- Huang, L., Su, T., Shan, W., Luo, Z., Sun, Y., He, F. and Li, X., Inhibition of cholinesterase activity and amyloid aggregation by berberine-phenylbenzoheterocyclic and tacrine-phenylbenzoheterocyclic hybrids, *Bioorg. Med. Chem.*, 20, 3038-3048, 2012.
- Huang, S.T., Hsei, I.J. and Chen, C., Synthesis and anticancer evaluation of bis(benzimidazoles), bis(benzoxazoles), and benzothiazoles, *Bioorg. Med. Chem.*, 14, 6106-6119, 2006.
- Hutchinson, I., Jennings, S.A., Vishnuvajjala, B.R., Westwell, A.D. and Stevens, M.F., Antitumor benzothiazoles 16. Synthesis and pharmaceutical properties of antitumor 2-(4-aminophenyl)benzothiazole amino acid prodrugs, *J. Med. Chem.*, 45, 744-747, 2002.
- IARC, Monographs on the evaluation of carcinogenic risk of chemicals to man, Safrole, isosafrole and dihydrosafrole, 10, 231-244, 1976.
- Ienascu, I.C., Lupea, A.X., Popescu, I.M., Padure, M.A. and Zamfir, A.D., The synthesis and characterization of some novel 5-chloro-2-(substituted alkoxy)-N-phenylbenzamide derivatives, *J. Serb. Chem. Soc.*, 74, 847-855, 2009.
- Inamoto, K., Katsuno, M., Yoshino, T., Arai, Y., Hiroya, K. and Sakamoto, T., Synthesis of 3-Substituted Indazoles and Benzoisoxazoles via Pd-Catalyzed Cyclization Reactions, Application to the Synthesis of Nigellicine, *Tetrahedron.*, 63, 2695-2711, 2007.
- Inestrosa, N.C., Alvarez, A., Pérez, C.A., Moreno, R.D., Vicente, M., Linker, C., Casanueva, O.I., Soto, C. and Garrido J., Acetylcholinesterase accelerates assembly of amyloid-beta-peptides into Alzheimer's fibrils, possible role of the peripheral site of the enzyme, *Neuron*, 16, 881-891, 1996.
- Inestrosa, N.C., Dinamarca, M.C. and Alvarez, A., Amyloid–cholinesterase interactions, *FEBS J.*, 275, 625-632, 2008.
- Inglis, F., The tolerability and safety of cholinesterase inhibitors in the treatment of dementia. *Int. J. Clin. Pract.*, 127, 45-63, 2002.
- Ischia, M., Palumbo, A. and Prota, G., Adrenalin oxidation revisited. New products beyond the adrenochrome stage, *Tetrahedron*, 44, 6441-6446, 1988
- Jaen, J.C., Wise, L.D., Caprathe, B.W., Tecle H., Bergmeier, S., Humblet, C.C., Heffner, T.G., Meltzer, L.T. and Pugsley, T.A., 4-(1,2,5,6-Tetrahydro-1-alkyl-3 pyridinyl)-2-thiazolamines, A novel class of compounds with central dopamine agonist properties, *J. Med. Chem.*, 33, 311-317, 1990.

## Bibliography

---

- Javitch, J.A., D'Amato, R.J. and Strittmatter, S.M., Parkinsonism-inducing neurotoxin, N-methyl-4-phenyl-1,2,3,6-tetrahydropyridine: uptake of the metabolite N-methyl-4-phenylpyridine by dopamine neurons explains selective toxicity, Proc. Nat. L. Acad. Sci. USA, 82, 2173-2177, 1985.
- Jellinger, K.A., Recent advances in our understanding of neurodegeneration, Journal of Neural Trans., 116, 1111-1162, 2009.
- Johnston, J.P., Some observations upon a new inhibitor of mono-amine oxidase in brain tissue, Biochem. Pharmacol., 17, 1285-1297, 1968.
- Kagan, B.L., Hirakura, Y., Azimov, R., Azimova, R. and Lin, M. C., The channel hypothesis of Alzheimer's disease: current status, Peptides, 23, 1311-1315, 2002.
- Kapadia, G.J., Shukla, Y.N. and Melosatin D., A New Isatin Alkaloid from Melochia tomentosa Roots, Planta Med., 59, 568-569, 1993.
- Kapadia, G.J., Shukla, Y.N., Basak, S.P., Sokoloski, E.A. and Fales, H.M., The melosatins—a novel class of alkaloids from Melochia tomentosa, Tetrahedron., 36, 2441-2447, 1980.
- Kapadia, G.J., Shukla, Y.N., Chowdhury, B.K., Basan, S.P., Fales, H.M. and Sokoloski, E.A. Phenylpentylisatins, a novel class of alkaloids from Melochia tomentosa., J. Chem. Soc., Chem. Commun., 1977, 535-536, 1977.
- Kashyap, S.J., Sharma, P.K., Garg, V.K., Dudhe R. and Kumar, N., Review on synthesis and various biological potential of thiazolopyrimidine derivatives, J. Adv. Sci. Res., 2, 18-24, 2011.
- Katritzky, A.R., Heterocyclic chemistry, An academic subject of immense industrial importance, Chem. Heterocycl. Compd., 28, 241-259, 1992.
- Kim, S. and Yoon, J.Y., Hydrazones, Sci. Synth., 27, 671-722, 2004.
- King, E.J. and Armstrong, A.R., A convenient method for determining serum and bile phosphatase activity, Can. Med. Assoc. J., 31, 376-381, 1934.
- Knoll, J. and Magyar, K., Some puzzling pharmacological effects of Monoamine oxidase inhibitors, Adv. Biochem. Psychopharmacol., 5, 393-408, 1972.
- Kochersperger, L.M., Parker, E.L., Siciliano, M., Darlington, G.J. and Denny, R.M., Assignment of genes for human monoamine oxidase A and B to the X chromosome, Journal of Neuroscience Research., 16, 601-616, 1986.
- Kokelenberg, H. and Marve, C.S., Polymers containing anthraquinone units, benzimidazole and benzothiazole polymers, J. Polym. Sci. A Polym. Chem., 8, 3199-3209, 1970.
- Konc, J., Konc, J.T., Penca, M. and Janezic, M. Binding-sites prediction assisting protein-protein docking, Acta Chim. Slov., 58, 396-401, 2011.

## Bibliography

---

- Korcsmaros, T., Szalay, M.S., Bode, C., Kovacs, I.A. and Csermely, P., How to design multi-target drugs: Target search options in cellular networks, *Expert Opin. Drug Disc.*, 2, 1-10, 2007.
- Koufaki, M., Kiziridi, C., Nikoludaki, F., Alexis, M.N., Design and synthesis of 1,2-dithiolane derivatives and evaluation of their neuroprotective activity, *Bioorg. Med. Chem. Lett.*, 17, 4223-4227, 2007.
- Kowal, S.L., Dall, T.M., Chakrabarti, R., Storm, M.V. and Jain, A., The current and projected economic burden of Parkinson's disease in the United States, *Mov. Disord.*, 28, 311-318, 2013.
- Kryger, G., Harel, M., Giles, K., Toker, L., Velan, B., Lazar, A., Kronman, C., Barak, D., Ariel, N., Shafferman, A., Silman, I. and Sussman, J.L., Structures of recombinant native and E202Q mutant human acetylcholinesterase complexed with the snake-venom toxin fasciculin-II, *Acta Crystallogr. D. Biol. Crystallogr.*, 56, 1385-1394, 2000.
- Kucukguzel , S. G., Mazi, A., Şahin, F., Ozturk S., Stables, J. P., Synthesis and biological activities of diflunisal hydrazide-hydrazone, *Eur. J. Med. Chem.* 2003, 38, 1005-1009.
- Kumar, P., Bansal, R.C and Mahmood, A., Isatin, an inhibitor of acetylcholinesterase activity in rat brain, *Biogen. Amines*, 9, 281-289, 1993
- Kumar, P., Dani, H.M. and Trehan, S., Effect of isatin testicular hyaluronidase, *Ind. J. Exp. Biol.*, 15, 655-656, 1977.
- Ladner, C.J. and Lee, J.M., Pharmacological drug treatment of Alzheimer disease: The cholinergic hypothesis revisited, *J. Neuropathol. Exp. Neurol.*, 57, 719–731, 1998.
- Lan, N.C., Heinzmann, C., Gal, A., Klisak, I., Orth, U., Lai, E., Grimsby, J., Sparkes, R.S., Mohandas, T. and Shih, J.C., Human Monoamine Oxidase A And B Genes Map Xp11.23 And Are Deleted In A Patient With Norrie Disease, *Genomics*, 4, 552-559, 1989.
- Lang, A.E. and Lees, A.J., MAO-B inhibitors for the treatment of Parkinson's disease, *Mov. Disord.*, 17, 38-44, 2002.
- Lau, C.K., Dufresne, C., Gareau, Y., Zamboni, R. Labelle, M., Young, R.N., Metters, K.M., Rochette, C., Sawyer, N., Slipetz, D.M.L., Jones, C.T., McAuliffe, M. McFarlane, C. and Ford-Hutchinson, A.W., Evolution of a series of non-quinoline leukotriene D4 receptor antagonist, synthesis and SAR of benzothiazoles and thiazoles substituted benzyl alcohols as potent LTD4 antagonists, *Bioorg. Med. Chem.*, 5, 1615-1620, 1995.
- Laurent, A., "Recherches sur l'indigo", *Annales de Chimie et de Physique* 2, 3(3), 393-434, 1840.
- Legoabe, L.J., Petzer, A. and Petzer, J.P., Inhibition of monoamine oxidase by selected C6-substituted chromone derivatives, *Eur. J. Med. Chem.*, 49, 343-353, 2012.

## Bibliography

---

- Leite, A.C.L., da Silva, K.P., de Souza, I.A., de Araujo, J.M. and Brondani, D.J., Synthesis, antitumour and antimicrobial activities of new peptidyl derivatives containing the 1,3-benzodioxole system, *Eur. J. Med. Chem.*, 39,105-1065, 2004.
- Leuzinger, W. and Baker, A.L., Acetylcholinesterase, I. Large-scale purification, homogeneity and amino acid analysis, *Proc. Natl. Acad. Sci. USA*, 57, 446-451, 1967.
- Lipinski, C.A., Lombardo, L., Dominy, B.W. and Feeney, P.J., Experimental and computational approaches to estimate solubility and permeability in drug discovery and development settings, *Adv. Drug Deliv. Rev.*, 46, 3-26, 2001.
- Lipper, S., Murphy, D.L., Slater, S. and Buchsbaum, M.S., Comparative behavioral effects of clorgyline and pargyline, *Psychopharmacology*, 62, 123-128, 1979.
- Lister, R.G., Ethologically - based animal models of anxiety disorders, *Pharmacological Theory*, 46, 321-340, 1990.
- Lister, R.G., The use of a plus-maze to measure anxiety in the mouse, *Psychopharmacology*, 92, 180-185, 1987.
- Liu, R.S., Synthesis of oxygen heterocycles via alkynyltungsten compounds, *Pure Appl. Chem.*, 73, 265-269, 2001.
- Lockridge, O., Bartels, C.F., Vaughan, T.A. Wong, C.K., Norton, S.E. and Johnson, L.L., Complete amino acid sequence of human serum cholinesterase, *J. Biol. Chem.*, 262, 549-557, 1987.
- Lopes, R., Romeiro, N.C., de Lima, C.K.F., da Silva, L.L. and de Miranda, A.L.P., Nascimento, P.G.B.D., Cunha, F.Q., Barreiro, E.J. and Lima, L.M., Docking, synthesis and pharmacological activity of novel urea-derivatives designed as p38 MAPK inhibitors, *Eur. J. Med. Chem.*, 54, 264-271, 2012.
- Lowry, O.H., Rosebrough, N.J., Forr, A.L. and Randall, R.T., Protein measurement with the Folin phenol reagent, *J. Biol. Chem.*, 193, 265-275, 1951.
- Luna, L.G., In *Manual of Histological Staining Methods of the Armed Forces Institute of Pathology*, McGraw-Hill: New York, 567-568, 1968.
- Ma, J., Yoshimura, M., Yamashita, E., Nakagawa, A., Ito, A. and Tsukihara, T., Structure of rat monoamine oxidase A and its specific recognitions for substrates and inhibitors, *J. Mol. Biol.*, 338, 103-114, 2004.
- Madeswaran, A., Umamaheswari, M., Asokkumar, K., Sivashanmugam, T., Subhadradevi, V. and Jagannath, P., In silico docking studies of lipoxygenase inhibitory activity of commercially available flavonoids, *J. Comp. Methods Mol. Des.*, 1, 65-72, 2011.
- Mandemakers, W., Morais, V.A. and De Strooper, B., A cell biological perspective on mitochondrial dysfunction in Parkinson disease and other neurodegenerative diseases, *J. Cell Sci.*, 120, 1707-1716, 2007.

## Bibliography

---

- Mao, J., Wang, Y., Wan, B., Kozikowski, A.P. and Franzblau, S.G., Design, Synthesis, and Pharmacological Evaluation of Mefloquine-Based Ligands as Novel Antituberculosis Agents. *ChemMedChem.* 2, 1624-1630, 2007.
- Martin-Zamora, E., Ferrete, A., Llera, J.M., Munoz, J.M., Pappalardo, R.R., Fernandez, R. and Lassaletta, J.M., Studies on Stereoselective [2+2] Cycloadditions between N,N-Dialkylhydrazones and Ketenes, *Chem. Eur. J.*, 10, 6111-6129, 2004.
- Massoulie, J., Pezzementi, L., Bon, S., Krejci, E. and Vallette, F.M., Molecular and cellular biology of cholinesterases, *Prog. Neurobiol.*, 41, 31-91, 1993.
- Mathis, C.A., Wang, Y., Holt, D.P., Haung, G.F., Debnath, M.L. and Klunk, W.E., Synthesis and evaluation of  $^{11}\text{C}$ -labeled 6-substituted 2-arylbenzothiazoles as amyloid imaging agents, *J. Med. Chem.*, 46, 2740-2754, 2003.
- Mattson, M.P., Metal-catalysed disruption of membrane protein and lipid signalling in the pathogenesis of neurodegenerative disorders, *Ann. N. Y. Acad. Sci.*, 1012, 37-50, 2014.
- Mays, J.R., Hill, S.A., Moyers, J.T. and Blagga, B.S.J., The synthesis and evaluation of flavones and isoflavone Chimeras of Novobiocin and Derrubone, *Bioorg. Med. Chem.*, 1, 249-266, 2010.
- Mckenna, D.J., Guan, X-M. and Shulgin, A.T., 3,4-Methylenedioxymphetamine (MDA) analogues exhibit differential effects on synaptosomal release of  $^3\text{H}$ -Dopamine and  $^3\text{H}$ -5-Hydroxytryptamine, *Pharmacol. Biochem. Behav.*, 38, 505-512, 1990.
- Meding, B., Toren, K., Karlberg, A.T., Hagberg, S. and Wass, K., Evaluation of skin symptoms among workers at a Swedish paper mill, *Am. J. Ind. Med.*, 23, 721-728, 1993.
- Medvedev, A.E., Ivanov, A.S., Veselovsky, A.V., Skvortsov V.S. and Archakov, A.I, QSAR analysis of indole analogues as monoamine oxidase inhibitors, *J. Chem. Inf. Comput. Sci.*, 36, 664-71, 1996.
- Mesulam, M.M., Guillouzet, A., Shaw, P., Levey, A., Duysen, E.G. and Lockridge, O., *Neuroscience*, 110, 627-639, 2002.
- Meyer, J.S., 3,4-methylenedioxymethamphetamine (MDMA), current perspectives, *Subst. Abuse Rehabil.*, 4, 83-99, 2013.
- Mittal, A., Synthetic nitroimidazoles, Biological activities and mutagenicity relationships, *Sci. Pharm.*, 77, 497-520, 2009.
- Mohammed F.E., Tarek E.M., Aida, A.E. and Mohamed, N.A., Design, synthesis and antibacterial potential of 5-(benzo[d][1,3]dioxol-5-yl)-3-tert-butyl-1- substituted-4,5-dihydropyrazoles, *Saudi Pharmaceutical Journal*, 23, 202-209, 2015.
- Molinspiration Cheminformatics, Bratislava, Slovak Republic, Available from: [molinspiration.com/services/properties.html](http://molinspiration.com/services/properties.html).

## Bibliography

---

- Morphy, R. and Rankovic, Z., Designed Multiple Ligands. An Emerging Drug Discovery Paradigm, *J. Med. Chem.*, 48, 6523-6543, 2005.
- Morphy, R., Kay, C. and Rankovic, Z., From magic bullets to designed multiple ligands, *Drug Discov. Today*, 15, 641-651, 2004.
- Mostafa, M.S. and Abd El-Salam, N.M., Synthesis and biological evaluation of 3-methyl-2-pyrazolin-5-one derivatives containing thiazole and indole moieties, *Der Pharma Chemica*, 5, 1-7, 2013.
- Nagalakshmi, G., Synthesis, antimicrobial and antiinflammatory activity of 2,5-disubstituted-1,3,4-oxadiazoles, *Indian J. Pharm. Sci.*, 70, 49-55, 2008.
- Nekrasov, D.D., Biological activity of 5- and 6-membered azaheterocycles and their synthesis from 5-aryl-2, 3-dihydrofuran-2,3-diones, *Chem. Heterocycl. Compd.*, 37, 263-275, 2001.
- Noulsri, E., Richardson, R., Lerdwana, S., Fucharoen, S., Yamagishi, T., Kalinowski, D.S. and Pattanapanyasat, K., Antitumor activity and mechanism of action of the iron chelator, Dp44mT, against leukemic cells, *Am. J. Hematology*, 84, 170-176, 2009.
- O' Carroll, A.M., Tipton, K.F., Sullivan, J.P., Fowler, C.J. and Ross, S.B., Intra- and extrasynaptosomal deamination of dopamine and noradrenaline by the two forms of human brain monoamine oxidase. Implications for the neurotoxicity of N-methyl-4-phenyl-1,2,3,6-tetrahydropyridine in man, *Biogen. Amines*, 4, 165-178, 1987.
- Alam, O., Mallick, P., Verma, S.P., Gilani, S.J., Khan, S.A., Siddiqui, N. and Ahsan, W., Synthesis, anticonvulsant and toxicity screening of newer pyrimidine semicarbazone derivatives, *Eur. J. Med. Chem.*, 45, 2467-2472, 2010.
- Okoh, O.A., Bisby, R.H., Lawrence, C.L., Rolph, C.E. and Smith, R.B., Promising near infrared non-targeted probes, benzothiazole heptamethine cyanine dyes, *J. Sulfur Chem.*, 35, 42-56, 2014.
- Olin, J. and Schneider, L., Galantamine for Alzheimer's disease, *Cochrane Database Syst. Rev.*, 3, Cd001747, 2002.
- Ollis, D.L., Cheah, E., Cygler, M., Dijkstra, B., Frolov, F., Franken, S.M., Harel, M., Remington, S.J., Silman, I., Schrag, J., Sussman, J.L., Verschueren, K.H.G. and Goldmans, A., The alpha/beta hydrolase fold, *Protein Eng.*, 5, 197-211, 1992.
- Ou, X.-M., Chen, K. and Shih, J.C., Glucocorticoid and androgen activation of monoamine oxidase A are regulated differently by R1 and Sp1, *J. Biol. Chem.*, 281, 21512-21525, 2006.
- Ozcelik, A.B., Gokce, M., Orhan, I. and Sahin, M.F., Synthesis and acetylcholinesterase/butyrylcholinesterase inhibitory activities of (substituted/nonsubstituted benzal)hydrazone derivatives of 3-(6-substituted-3(2H)-pyridazinon-2-yl)propionohydrazides, *FABAD J. Pharm. Sci.*, 35, 153-161, 2010.

## Bibliography

---

- Ozgun, D.O., Yamali, C., Gul, H.I., Taslimi, P., Gulcin, G., Yanik, T. and Supuran, C.T., Inhibitory effects of isatin Mannich bases on carbonic anhydrases, acetylcholinesterase, and butyrylcholinesterase. *J. Enzyme Inhib. Med. Chem.*, Early Online, 1–4, 2016.
- Palhagen, S., Heinonen, E., Hagglund, J., Kaugesaar, T., Maki-Ikola, O. and Palm, R., Selegiline slows the progression of the symptoms of Parkinson disease, *Neurology*, 66, 1200–1206, 2006.
- Palmer, F.J., Trigg, R.B. and Warrington, J.V., Benzothiazolines as antituberculous agent, *J. Med. Chem.*, 14, 248-251, 1971.
- Palumbo, A., Ischia, M., Misuraca, G. and Prota, G., A new look at the rearrangement of adrenochrome under biomimetic conditions, *Biochim. Biophys. Acta*, 990, 297-302, 1989.
- Pandeya, S.N. and Dimmock, J.P., Recent evaluations of thiosemicarbazones and semicarbazones and related compounds for antineoplastic and anticonvulsant activities, *Die Pharmazie*, 48, 659-666, 1993.
- Pandeya, S.N., Aggarwal, N and Jain, J.S., Evaluation of semicarbazones for anticonvulsant and sedative-hypnotic properties, *Pharmazie*, 54, 300-302, 1999.
- Pandeya, S.N., Raja, A. S. and Stables, J.P., Synthesis of isatin semicarbazones as novel anticonvulsants-role of hydrogen bonding, *J. Pharm. Pharm. Sci.*, 5, 266-271, 2002.
- Pandeya, S.N., Sriram, D. and Nath, G., Synthesis, antibacterial, antifungal and anti-HIV activity of norfloxacin mannich bases, *Euro. J. Med. Chem.*, 35, 249-255, 2000.
- Pandurangan, A., Sharma, A., Sharma, N., Sharma, P.K. and Visht, S., Synthesis and structural studies of novel benzothiazole derivative and evaluation of their antimicrobial activity, *Der Pharma Chem.*, 2, 316-324, 2010.
- Papenfuh, T., Preparation of benzothiazoles as intermediates for dyes, plant protectants and pharmaceuticals, *Ger. Pat.*, 3528032, 1987.
- Park, H. and Choi, M-U., Basic properties of brain monamine oxidase using benzylamine as substrate, *Korean Biochem. J.*, 16, 189-198, 1983.
- Parrott, A.C., The potential dangers of using MDMA for psychotherapy. *J. Psychoactive Drugs*, 46, 37-43, 2014.
- Parton, R.L., Stegman, D.A., Williams, K.W. and Chand, V.L., Benzothiazole, benzoselenazole or benzooxazole sensitizers for photographic films, *US5516628A*, 1995.
- Patt, W.C., H.W. Hamilton, M.D. Taylor, M.J. Ryan and D.G. Taylor Jr. Connolly, C.J.C., Doherty, A.M., Klutchko, S.R. and Sircar, I., Structure-activity relationships of a series of 2-Amino-4-thiazole containing renin inhibitors, *J. Med. Chem.*, 35, 2562-2572, 1992.

## Bibliography

---

- Pattan, S.R., Suresh, C., Pujar, V.D., Reddy, V.V.K., Rasal, V.P. and Koti, B.C., Synthesis and antidiabetic activity of 2-amino[(4-sulphonylbenzylidene-2,4-thiazolidenedinone]-7-chloro-6-fluorobenzothiazole, Ind. J. Chem., 44B, 2404-2408, 2005.
- Pellow, S., Chopin, P., File, S.E. and Briley, M., Validation of open:closed arm entries in an elevated plus-maze as a measure of anxiety in the rat. J. Neurosci. Methods, 14, 149-167, 1985.
- Perez, V. and Unzeta, M., PF9601N, a new MAO-B inhibitor, attenuates MPTP-induced depletion of striatal dopamine levels in C57/BL6 mice, Neurochem. Int., 42, 221-239, 2003.
- Perez, V., Romera, M., Lizcano, J.M., Marco, J.L. and Unzeta, M., Protective effect PF9601N, a novel MAO-B inhibitor, on dopamine-lesioned PC12 cultured cells, J. Pharm. Pharmacol., 55, 713-716, 2003.
- Peters, A.T. and Yang, S.S., Monoazo disperse dyes derived from nitro-2-aminobenzothiazoles, Dyes Pigments, 28, 151-164, 1995.
- Pignatello, R., Mazzone, S., Castelli, F., Mazzone, P., Raciti, G. and Mazzone, G., MAOI activity of thiosemicarbazides and related 2-thiazolylhydrazines, Pharmazie, 49, 272-276, 1994.
- Polshettiwar, V. and Varma, R.S., Greener and expeditious synthesis of bioactive heterocycles using microwave irradiation, Pure Appl. Chem., 80, 777-790, 2008.
- Popp, F.D. and Donigan, B.E., Synthesis of 3-Hydroxy-3-phenacyloxindole Analogs, J. Pharm. Sci., 68, 519-520, 1979.
- Popp, F.D. and Donigan, Synthesis of 3-hydroxy-3-phenacyloxindole Analogs, J. Pharm. Sci., 68, 579, 1979.
- Popp, F.D., Parson, R. and Donigan, B.E., Potential anticonvulsant.III: The condensation of isatin with cyclic ketones. J. Heterocyclic Chem., 17, 1329-1340, 1980.
- Popp, F.D., Parson, R. and Donigan, B.E., Synthesis of potential anticonvulsants. condensations of isatins with acetone and related ketones, J. Pharm. Sci., 69, 1235-1237, 1980.
- Porsolt, R.D., Anton, G., Blanet, N. and Jalfre, M. Behavioural despair in rats: A new model sensitive to antidepressant treatments, Eur. J. Pharmacol., 47, 379-391, 1978.
- Porter, R.J., Hessie, B.J., Cereghino, J.J., Gladding, G.D., Kupferberg, H.J., Scoville, B. and White, B.G., Advances in the clinical development of antiepileptic drugs, Fed Proc, 44, 2645-2649, 1985.
- Prat, G., Perez, V., Rubi, A., Casas, M. and Unzeta, M., The novel type B MAO inhibitor PF9601N enhances the duration of L-DOPA induced contralateral turning in 6-hydroxydopamine lesioned rats, J. Neural. Transm., 107, 409-417, 2000.

---

## Bibliography

---

- Qizilbash, N., Birks, J., Lopez, A.J., Lewington, S. and Szeto, S., Tacrine for Alzheimer's disease. The Cochrane database of systematic reviews, 3, Cd000202, 2003.
- Rahmani-Khajouei, M., Mohammadi-Farani, A., Ghorbani, H. and Aliabadi, A., Synthesis and acetylcholinesterase Inhibitory Assessment of 3-(2-(4-benzoylpiperazin-1-yl) ethylimino) indolin-2-one derivatives with potential anti-Alzheimer Effects, *J. Rep. Pharm. Sci.*, 4, 148-157, 2015.
- Raja, A.S., Pandeya, S.N., Panda, S.S. and Stables, J.P., Synthesis and anticonvulsant evaluation of semicarbazones of acetophenone Mannich bases, *Pharm. Chem. J.*, 41, 302-307, 2007.
- Rajesh, M.P. and Natvar, J.P., In vitro antioxidant activity of coumarin compounds by DPPH, Super oxide and nitric oxide free radical scavenging methods, *J. Adv. Pharm. Educ. Res.*, 1, 52-68, 2011.
- Ramirez, B.E.B., Ruriz, N.N., Arellano, J.D.Q., Madrigal, B.R., Michel, M.T.V. and Garzon, P., Anticonvulsant effect of Magnolia grandiflora L. in the rat, *J. Ethnopharmacol.*, 61, 143-152, 1998.
- Rana, A., Siddiqui, N., Khan, S.A., Ehtaishamul Haque, S. and Bhat, M.A., N-{[(6-substituted-1,3-benzothiazole-2-yl)amino]carbonothioyl}-2/4-substituted benzamides, synthesis and pharmacological evaluation, *Eur. J. Med. Chem.*, 43, 1114-1122, 2008.
- Rao, T. and Zhang, C., 3,4-methylenedioxophenyl inhibitors of GABA aminotransferase and/or GABA reuptake transporter inhibitor, US Patents 0257260A1, 2011.
- Tripathi, R.K.P., Goshain, O. and Ayyannan, S.R., Design, Synthesis, in vitro MAO-B Inhibitory Evaluation, and Computational Studies of Some 6-Nitrobenzothiazole-Derived Semicarbazones, *ChemMedChem*, 8, 462-474, 2013.
- Razus, A.C., Birzan, L., Surugiu, N.M., Corbu, A.C. and Chiraleu, F., Syntheses of azulen-1-yl-benzothiazol-2-yl aiazenes, *Dyes Pigments*, 74, 26-33, 2007.
- Reddy, P.V.G., Y.B. Kiran, C.S. Reddy and Reddy, C. D., Synthesis and antimicrobial activity of novel phosphorus heterocycles with exocyclic p-C link, *Chem. Pharm. Bull.*, 52, 307-310, 2004.
- Reemtsma, T., Determination of 2-substituted benzothiazoles of industrial use from water by liquid chromatography/electrospray ionization tandem mass spectrometry, *Rapid Commun. Mass Spectrom.*, 14, 1612-1618, 2000.
- Reemtsma, T., Fiehn, O., Kalnowski, G. and Jekel, M., Microbial transformations and biological effects of fungicide-derived benzothiazoles determined in industrial waste water, *Environ. Sci. Technol.*, 29, 478-485, 1995.
- Rees, T., Hammond, P.I., Soreq, H., Younkin, S. and Brimijoin, S., Acetylcholinesterase promotes beta-amyloid plaques in cerebral cortex, *Neurobiol. Aging*, 24, 777-787, 2003.

## Bibliography

---

- Reinhardt, P.H., Taylor, W.M. and Bygrave, F.L., A procedure for the rapid preparation of mitochondria from rat liver, *Biochem. J.*, 204, 731-735, 1982.
- Reinhold, J.G., In Total Protein Albumin and Globulin, Standard Methods in Clinical Chemistry, Reiner, M., Ed.; Academic Press: New York, 88-90, 1953.
- Reitman, S. and Frankel, S., A colorimetric method for the determination of serum glutamic oxalacetic and glutamic pyruvic transaminases, *Am. J. Clin. Pathol.*, 28, 56-63, 1957.
- Reyes-Parada, M., Fierro, A., Iturriaga-Vasquez, A.P. and Cassels, B.K., Monoamine Oxidase Inhibition In the Light of New Structural Data, *Curr. Enzyme Inhib.*, 1, 85-95, 2005.
- Richards, J.G., Saura, J. and Luque, J.M., Monoamine oxidases: from brain maps to physiology and transgenics to pathophysiology, *J. Neural Transm.*, 52, 173-187, 1998.
- Riederer, P., Danielczyk, W. and Grunblatt, E., Monoamine oxidase-B inhibition in Alzheimer's disease, *Neurotoxicology*, 25, 271-277, 2004.
- Robinson, D.S., Nies, A., Ravaris, C.L. and Lamborn, K.R., The monoamine oxidase inhibitor, phenelzine, in the treatment of depressive anxiety states. A controlled clinical trial, *Arch. Gen. Psychiat.*, 29, 407-413, 1973.
- Rollas, S. and Kucukguzel, S.G., Biological Activities of Hydrazone Derivatives, *Molecules*. 12, 1910-1939, 2007.
- Rothman, R.B. and Baumann, M.H., Therapeutic potential of monoamine transporter substrates. *Curr. Top. Med. Chem.*, 6, 1845-1859, 2006.
- Rudolph, J., Theis, H., Hanke, R., Endermann, R., Johannsen L. and Geschke, F.U., Seco- cyclothialidines, New concise synthesis, inhibitory activity toward bacterial and human DNA topoisomerases and antibacterial properties, *J. Med. Chem.*, 44, 619-626, 2001.
- Rudorfer, M.V. and Potter, W.Z., Antidepressants, A Comparative Review of the Clinical Pharmacology and Therapeutic Use of the ‘Newer’ Versus the ‘Older’ Drugs, *Drugs*, 37, 713-738, 1989.
- S. Dutta, S. Padhye, K.I. Priyadarsini, C. Newton, Antioxidant and antiproliferative activity of curcumin semicarbazone, *Bioorg. Med. Chem. Lett.*, 15, 2738-2744, 2005.
- Sagi, Y., Weinstock, M. and Youdim, M.B., Attenuation of MPTP induced dopaminergic neurotoxicity by TV3326, a cholinesterase- monoamine oxidase inhibitor, *J. Neurochem.*, 86, 290-297, 2003.
- Sanz, E., Quintana, A., Battaglia, V., Toninello, A., Hidalgo, J., Ambrosio, S., Valoti, M., Marco, J.L., Tipton, K.F., Unzeta, M., Antiapoptotic effect of MAO-B inhibitor PF9601N is mediated by p53 pathway inhibition in MPP<sup>+</sup>-treated SH-SY5Y human dopaminergic cells, *J. Neurochem.*, 105, 2404-2417, 2008.

---

## Bibliography

---

- Sanz, E., Quintana, A., Hidalgo, J., Marco, J.L. and Unzeta, M., PF9601N confers MAO-B independent neuroprotection in ER-stress induced cell death, *Mol. Cell Neurosci.*, 41, 19-31, 2009.
- Saura, J., Luque, J.M., Cesura, A.M., Da Prada, M., Chan-Palay, V., Huber, G., Loffler, J. and Richards, J.G., Increased monoamine oxidase B activity in plaque-associated astrocytes of Alzheimer brains revealed by quantitative enzyme radioautography, *Neuroscience*, 62, 15-30, 1994.
- Schrag, J., Schmid, M.F., Morgan, D.G., Phillips, G.N. Jr., Chiu, W. and Tang, L., Crystallization and preliminary X-Ray diffraction analysis of 11 S acetylcholinesterase, *J. Biol. Chem.*, 263, 9795-9800, 1988.
- Secci, D., Bizzarri, B., Bolasco, A., Carradori, S., D'Ascenzo, M., Rivanera, D., Mari, E., Polletta, L. and Zicari, A., Synthesis, anti-Candida activity, and cytotoxicity of new (4-(4-iodophenyl) thiazol-2-yl)hydrazine derivatives, *Eur J. Med. Chem.*, 53, 246-253, 2012.
- Sekizawa, J. and Shibamoto, T. Genotoxicity of safrole-related chemicals in microbial test systems, *Mutat. Res.*, 101, 127-140, 1982.
- Selkoe, D.J., Deciphering the genesis and fate of amyloid betaprotein yields novel therapies for Alzheimer disease, *J. Clin. Invest.*, 110, 1375-1381, 2002.
- Seo, K.W., Park, M., Kim, J.G., Kim, T.W. and Kim, H.J., Effects of benzothiazole on the xenobiotic metabolizing enzymes and metabolism of acetaminophen, *J. Appl. Toxicol.*, 20, 427-430, 2000.
- Sharma, R.N., Xavier, F.P., Vasu, K.K., Chaturvedi, S.C. and Pancholi, S.S., Synthesis of 4-benzyl-1, 3-thiazole derivatives as potential anti-inflammatory agents, An analogue-based drug design approach, *J. Enzyme Inhib. Med. Chem.*, 24, 890-897, 2009.
- Shi, D.F., Bradshaw, T.D., Wrigley, S., McCall, C.J., Lelieveld, P., Fichtner, I. and Stevens, M.F., Antitumor benzothiazoles 3. Synthesis of 2-(4-aminophenyl) benzothiazoles and evaluation of their activities against breast cancer cell lines in vitro and in vivo, *J. Med. Chem.*, 39, 3375-3384, 1996.
- Shih, M.H. and Ying, K.F., Syntheses and evaluation of antioxidant activity of sydnonyl substituted thiazolidinone and thiazoline derivatives, *Bioorg. Med. Chem.*, 12, 4633-4643, 2004.
- Shoham, S. and Youdim, B.M.H., Iron involvement in neural damage and microgliosis in models of neurodegenerative diseases, *Cell. Mol. Biol.*, 46, 743-760, 2000.
- Shvekhheimer, M.G.A., Synthesis of heterocyclic compounds by the cyclization of isatin and its derivatives (review), *Chem. Heterocycl. Compd.*, 32, 249-276, 1996.

---

## Bibliography

---

- Siddiqui, N., Alam, M. and Siddiqui, A.A., Synthesis and analgesic activity of some 2-[{4-(alkyl thioureido) phenyl} sulphonamido]-6-substituted benzothiazoles, *Asian J. Chem.*, 16, 1005-1008, 2004.
- Siddiqui, N., Arshad, M.F., Ahsan, W. and Alam, M.S., Thiazoles, A valuable insight into the recent advances and biological activities, *Int. J. Pharm. Sci. Drug Res.*, 1, 136-143, 2009.
- Siddiqui, N., Pandeya, S.N., Khau, S.A., Stables, J., Rana, A., Alam, M., MdArshad, F. and Bhat, M.A., Synthesis and anticonvulsant activity of sulfonamide derivatives hydrophobic domain, *Bioorg. Med. Chem.*, 17, 255-259, 2007.
- Siddiqui, N., Rana, A., Khan, S.A., Alam, O., Ahsan, W. and Ali, R., Design, synthesis and anticonvulsant screening of newer benzothiazole-semicarbazones, *Asian J. Biomed. Pharma. Sci.*, 2, 8-17, 2012.
- Siddiqui, N., Rana, A., Khan, S.A., Bhat, M.A. and Haque, S.E., Synthesis of benzothiazole semicarbazones as novel anticonvulsants—The role of hydrophobic domain, *Bioorg. Med. Chem. Lett.*, 17, 4178-4182, 2007.
- Silver, A., *The biology of cholinesterases*, Elsevier, Amsterdam, 1974.
- Sims, K.B., Ozelius, L., Corey, T., Rinehart, W.B., Liberfarb, R., Haines, J., Chen, W.J., Norio, R., Sankila, E., De La Chapelle, A., Murphy, D., Gusella, J. and Breakefield, X.O., Norrie Disease Gene Is Distinct From Monoamine Oxidase Genes, *Am. J. Human Genet.*, 45, 424-434, 1989.
- Singer T.P., in *Chemistry and Biochemistry of Flavoenzymes II* (Ed.: F. Muller), CRC Press, London, 437-470, 1991.
- Singer, T. and Ramsay, R.R., Monoamine oxidases: old friends hold many surprises, *FASAEB J.*, 9, 605-610, 1995.
- Singh, A., Dharkarey, R and Saxena, G.C., Magnetic and spectral behaviour of semicarbazone derivatives of manganese (II), copper (II), iron (III) and chromium (III) and their antimicrobial screening, *J. Indian Chem. Soc.*, 73, 339-342, 1996.
- Singh, B., Sharma, R. and Sareen, K., Isatin enzyme interaction V. Activation of rat liver acid phosphatase, *Enzyme*, 22, 256-261, 1977.
- Singh, M., Singh, S.K., Gangwar, M., Nath, G. and Singh, S.K., Design, synthesis and mode of action of some benzothiazole derivatives bearing an amide moiety as antibacterial agents, *RSC Adv.*, 4, 19013-19023, 2014.
- Singh, S.P. and Segal, S., Study of fungicidal activities of some benzothiazoles, *Ind. J. Chem.*, 27B, 941-943, 1988.
- Singh,V., Srivastava, V.K., Palit, G. and Shanker, K., Coumarin congeners as antidepressants, *Arzneim-Forsch. Drug. Res.*, 42, 993-996, 1992.

---

## Bibliography

---

- Sinha, S.K. and Shrivastava, S.K., Synthesis, evaluation and molecular dynamics study of some new 4-aminopyridine semicarbazones as an antiamnesic and cognition enhancing agents, *Bioorg. Med. Chem.*, 21, 5451-5460, 2013.
- Sjoerdsma, A., Smith, T.E., Stevenson, T.D. and Udenfriend, S., Metabolism of 5-hydroxytryptamine (serotonin) by monoamine oxidase, *Proc. Soc. Exptl. Biol. Med.* 89, 36-38, 1955.
- Solomon, V.R., Lee, C. and Hu, H., Hybrid pharmacophore design and synthesis of isatinbenzothiazole analogs for their anti-breast cancer activity, *Bioorg. Med. Chem.*, 17, 7585-7592, 2009.
- Son, S.Y., Ma, J., Kondou, Y., Yoshimura, M., Yamashita, E. and Tsukihara, T., Structure of human MAO-A at 2.2 Å resolution, *Proc. Natl. Acad. Sci. USA*, 105, 5739-5744, 2008.
- Sperry, J.B. and Wright, D.L., Furans, thiophenes and related heterocycles in drug discovery, *Curr. Opin. Drug Discov. Devel.*, 8, 723-740, 2005.
- Sridhar, S. K., Pandeya, S. N., Stables, J. P. and Ramesh, A., Anticonvulsant activity of hydrazones, Schiff and Mannich bases of isatin derivatives, *Eur. J. Pharm. Sci.*, 16(3),129-132, 2002.
- Sridhar, S.K., Pandeya S.N., Stables J.P. and Ramesh A., Anticonvulsant activity of hydrazones, Schiff and mannich bases of isatin derivatives, *Euro. J. Pharm. Sci.*, 16, 129-132, 2002.
- Sridharan, V., Perumal, P.T., Avendano, C. and Menendez, J.C., The first aza Diels-Alder reaction involving an alpha,beta-unsaturated hydrazone as the dienophile, stereoselective synthesis of C-4 functionalized 1,2,3,4-tetrahydroquinolines containing a quaternary stereocenter, *Org. Biomol. Chem.*, 5, 1351-1353, 2007.
- Stanfill, S.B., Calafat, A.M., Brown, C.R., Polzin, G.M, Chiang, J.M., Watson, C.H. and Ashlay, O.L., Concentrations of nine alkenylbenzenes, coumarin, piperonal and pulegone in Indian bidi cigarette tobacco, *Food Chem. Toxicol.*, 41, 303-317, 2003.
- Sterling, J., Herzig, Y., Goren, T., Finkelstein, N., Lerner, D., Goldenberg, W., Mikcolczi, I., Molnar, S., Rantal, F., Tamas, T., Toth, G., Zagyva, A., Zekany, A., Finberg, J., Lavian, G., Gross, A., Friedman, R., Razin, M., Huang, W., Krais, B., Chorev, M., Youdim, M.B. and Weinstock, M., Novel dual inhibitors of AChE and MAO derived from hydroxy aminoindan and phenethylamine as potential treatment for Alzheimer's disease, *J. Med. Chem.*, 54, 5260-5279, 2002.
- Strolin-Benedetti, M. and Dostert, P., Monoamine oxidase, brain ageing and degenerative diseases, *Biochem. Pharmacol.*, 38, 555-561, 1989.

---

## Bibliography

---

- Strolin-Benedetti, M. and Tipton, K.F., Monoamine oxidases and related amine oxidases as phase I enzymes in the metabolism of xenobiotics, *J. Neural. Transm.*, 52, 149-171, 1998.
- Strydom, B., Malan, S.F., Castagnoli Jr., N., Bergh, J.J. and Petzer, J.P., Inhibition of monoamine oxidase by 8-benzyloxycaffeine analogues, *Bioorg. Med. Chem.*, 18, 1018-1028, 2010.
- Sundararajan, M.L., Anandakumaran, J. and Jeyakumar T., Synthesis, characterization and biological activities of 2-((E)-(benzo[d][1,3]dioxol-6-ylimino)methyl)-6-ethoxyphenol and its metal complexes, *Spectrochim. Acta A.*, 125, 104-113, 2014.
- Sundararajan, M.L., Anandakumaran, J., Jeyakumar, T. and Karpanai Selvan, B., Synthesis of metal complexes involving Schiff base ligand with methylenedioxy moiety, Spectral, thermal, XRD and antimicrobial studies, *Spectrochim. Acta A.*, 131, 82-93, 2014.
- Suresh, C., Rao, J.V., Jayaveera, K.N. and Reddy, G.J., Synthesis of 2-hydrazino benzothiazoles-2-amino-(4-substituted)-acetanilides for antioxidant activity, *Inter. J. Pharma. Bio. Sci.*, 1, 409-413, 2011.
- Suresh, C.H., Rao, J.V., Jayaveera, K.N. and Subudhi, S.K., Synthesis and anthelmintic activity of 3-(2-hydrozino benzothiazole)-substituted indole-2-one, *Int. J. Pharma.*, 2, 257-261, 2013.
- Sussman, J.L., Harel, M., Frolow, F., Oefner, C., Goldman, A., Toker, L. and Silman, I., Atomic structure of acetylcholinesterase from *Torpedo californica*: a prototypic acetylcholine-binding protein, *Science*, 253, 872-879, 1991.
- Szelenyi, J.G., Bartha, E. and Hollan, S.R., Acetylcholinesterase activity of lymphocytes: an enzyme characteristic of T-cells, *Br. J. Haematol.*, 50, 241-245, 1982.
- Tabor, C., Tabor, W.H. and Rosenthal, S.M., Purification of amine oxidase from beef plasma, *J. Biol. Chem.*, 208, 645-661, 1954.
- Tan, B.S., Tiong, K.H., Muruhadas, A., Randhawa, N., Choo, H.L., Bradshaw, T.D., Stevens, M.F. and Leong, C.O. CYP2S1 and CYP2W1 mediate 2-(3,4-dimethoxyphenyl)-5-fluorobenzothiazole (GW-610, NSC 721648) sensitivity in breast and colorectal cancer cells, *Mol. Cancer Ther.*, 10, 1982-1992, 2011.
- Taqvi, S.I.H., Shah, A.J., Gilani, A.J. and Hassan, G. Blood Pressure Lowering and Vasomodulator Effects of Piperine. *J. Cardiovasc. Pharmacol.*, 52, 452-458, 2008.
- Taylor, P. and Radic, Z., The cholinesterases: from genes to proteins, *Ann. Rev. Pharmacol. Toxicol.*, 34, 281-320, 1994.
- The Cochrane database of systematic reviews, *J. Evid. Based Med.*, 2, 277-278, 2002.

## Bibliography

---

- Thomas, D., Karle, C.A. and Kiehn, J. The cardiac hERG/IKr potassium channel as pharmacological target: structure, function, regulation, and clinical applications, *Curr. Pharm. Des.*, 12, 2271-2283, 2006.
- Trullas, R. and Skolnick, P., Differences in fear motivated behaviors among inbred mouse strains, *Psychopharmacology*, 111, 323-331, 1993.
- Tsuji, K. and Ishikawa, H., Synthesis and antipseudomonal activity of new 2-Isocephems with a dihydroxypyridone moiety at C-7, *Bioorg. Med. Chem. Lett.*, 4, 1601-1606, 1994.
- Udenfriend, S., Weissbach, H. and Clark, C.T., The estimation of 5-hydroxytryptamine (serotonin) in biological tissues, *J. Biol. Chem.*, 215, 337-344, 1955.
- Umamaheswari, M., Madeswaran, A., Asokkumar, K., Sivashanmugam, T., Subhadradevi, V. and Jagannath, P., Study of potential xanthine oxidase inhibitors: In silico and in vitro biological activity, *Bangladesh J. Pharmacol.*, 6, 117-123, 2011.
- Usama, A. M., Bedia, K, Emine, E. O., Zafer, A. K. and Sevim, R., Studies on hydrazide-hydrazone derivatives as acetylcholinesterase inhibitors, *MUSBED*, 5, 10-14, 2015.
- Valverde, M.G. and Torroba, T., Sulfur-Nitrogen heterocycles, *Molecules*, 10, 318-320, 2005.
- Varley, H., In *Practical Clinical Biochemistry*, CBS Publishers and Distributors, New Delhi, 236-238, 1988.
- Vellom, D.C., Radic, Z., Li, Y., Pickering, N.A., Camp, S. And Taylor, P. Amino acid residues controlling Acetylcholinesterase and butyrylcholinesterase specificity, *Biochemistry*, 32, 12-17, 1993.
- Veselovsky, A.V., Ivanov, A.S. and Medvedev, A.E., Computer Modelling and Visualization of Active site of monamine oxidases, *Neurotoxicology*, 25, 37-46, 2004.
- Vicini, P. , Zani, F., Cozzini, P. , Doytchinova, I., Hydrazones of 1,2-benzisothiazole hydrazides, synthesis, antimicrobial activity and QSAR investigations, *Eur. J. Med. Chem.*, 37, 553-564, 2002.
- Vicini, P., Incerti, M., Doytchinova, I.A., Colla, P., Busonera, B. and Loddo, R., Synthesis and antiproliferative activity of benzo[d]isothiazole hydrazones, *Eur. J. Med. Chem.*, 41, 624-632, 2006.
- Villegas, A.M., Catalan, L.E., Venegas, I.M., Garcia, J.V. and Altamirano, H.C., New Catechol Derivatives of Safrole and Their Antiproliferative Activity towards Breast Cancer Cells, *Molecules*, 16, 4632-4641, 2011.
- Wagner, M.J. and Promes, S.B., *Last Minute Emergency Medicine : A Concise Review for the Specialty Boards*, McGraw Hill Professional, 12, 2007.

## Bibliography

---

- Waldmeier, P.C., Amine oxidases and their endogenous substrates, *J. Neural. Transm.*, 23, 55-72, 1987.
- Wang, X., Sarris, K., Kage, K., Zhang, D., Brown, S.P., Kolasa, T., Surowy, C., ElKouhen, O.F., Muchmore, S.W., Brioni, J.D. and Stewart, A.O., Synthesis and evaluation of benzothiazole-based analogues as novel, potent, and selective fatty acid amide hydrolase inhibitors, *J. Med. Chem.*, 52, 170-180, 2009.
- Wani, M.Y., Athar, F., Salauddin, A., Agarwal, S.M., Azam, A., Choi, H. and Bhat, A., Novel terpene based 1,4,2-dioxazoles, synthesis, characterization, molecular properties and screening against *Entamoeba histolytica*, *Eur. J. Med. Chem.*, 46, 4742-4752, 2011.
- Wei, L., Wang, Q. and Liu, X., Application of thin-layer chromatography in quality control of Chinese medicinal preparations. II. Qualitative analysis of some Chinese medicinal preparations of Chansu, *Yaowu Fenxi Zazhi*, 2, 288-291, 1982.
- Weinstock, M., Gorodetsky, E., Poltyrev, T., Gross, A., Sagi, Y. and Youdim, M., A novel cholinesterase and brain-selective monoamine oxidase inhibitor for the treatment of dementia comorbid with depression and Parkinson's disease, *Prog Neuropsychopharmacol Biol Psychiatry*, 27(4), 555-561, 2003.
- Weinswig, M.H. and Roche, E.B., Monoamine oxidase inhibitors. Synthesis of a series of isopropylidine and isopropyl derivatives of some aryl and arylalkyl acid hydrazides, *J. Pharm. Sci.*, 54, 1216-1218, 1965.
- West, D.X., Padhye, S.B. and Sonawane, P.B., *Structure and Bonding*, Springer-Verlag, New York, 76, 1-50, 1991.
- West, E.D. and Dally, P., Effect of iproniazid on depressive syndromes, *Br. Med. J.*, 1491-1494, 1959.
- Westlund, K.N., Denney, R.M., Kochersperger, L.M., Rose, R.M. and Abell, C.W., Distinct monoamine oxidase A and B cell populations in primate brain, *Science*, 230, 181-183, 1985.
- Weyler, W., Hsu, Y.P. and Breakefield, X.O., Biochemistry and genetics of monoamine oxidase, *Pharmacol. Ther.*, 47, 391-417, 1990.
- WHO library cataloguing-in-Publication data, Neurological disorders: Public health challenges, 32-33, 2006.
- [www.chemaxon.com](http://www.chemaxon.com)
- [www.molinspiration.com](http://www.molinspiration.com)
- [www.preadmet.bmdrc.org](http://www.preadmet.bmdrc.org)
- Yogev-Falach, M., Amit, T., Bar-Am, O., Weinstock, M. and Youdim, M.B., Involvement of MAP kinase in the regulation of amyloid precursor protein processing by

## Bibliography

---

novel cholinesterase inhibitors derived from rasagiline, *FASEB J.*, 16(12), 1674-1676, 2002.

Yoshiije, Y., Tanemura, K., Murayama, O., Akagi, T., Murayama, M., Sato, S., Sun, X., Tanaka, N. and Takashima, A., New insights on how metals disrupt amyloid b aggregation and their effects on amyloid  $\beta$  cytotoxicity, *J. Biol. Chem.*, 276, 32293-32299, 2001.

Yoshikawa, M., Murakami, T., Kishi, A., Sakurama, T., Matsuda, H., Nomura, M., Matsuda, H. and Kubo, M., Novel Indole S,O-Bisdesmoside, Calanthoside, the Precursor Glycoside of Tryptanthrin, Indirubin, and Isatin, with Increasing Skin Blood Flow Promoting Effects, from Two Calanthe Species (Orchidaceae), *Chem. Pharm. Bull.*, 46, 886-888, 1998.

Youdim M.B., Pharmacology of MAO B inhibitors: mode of action of (-) deprenyl in Parkinson's disease, *J. Neural Transm. Suppl.*, 22, 91-105, 1986.

Youdim, M.B.H. and Finberg, J.P., New Directions in monoamine oxidase A and B selective inhibitors and substrates, *M. Biochem. Pharmacol.*, 41, 155-162, 1991.

Youdim, M.B.H., Fridkin, M. and Zheng, H., Novel bifunctional drugs targeting monoamine oxidase inhibition and iron chelation as an approach to neuroprotection in Parkinson's disease and other neurodegenerative diseases, *J. Neural Transm.*, 111, 1455-1471, 2004.

Youdim, M.D.H. and Riederer, P., Dopamine metabolism and neurotransmission in primate brain in relationship to monoamine oxidase A and B inhibition, *J. Neural Transm.*, 91, 181-195, 1993.

Yousif, I.Q. and Alies, M.F., Synthesis, characterization, theoretical treatment and antimicrobial studies of some metal ion complexes with 2-hydroxy-4-nitrophenyl piperonalidene, *J. Al-Nahrain Univ.*, 13, 1-14, 2010.

Yu, H. and Adedoyin, A., ADME-Tox in drug discovery: integration of experimental and computational technologies, *Drug Discovery Today*, 8, 852-861, 2003.

Zheng, H., Gal, S., Weiner, L.M., Bar-Am, O., Warshawsky, A., Fridkin, M. and Youdim, M.B., Novel multifunctional neuroprotective iron chelator-monoamine oxidase inhibitor drugs for neurodegenerative diseases: in vitro studies on antioxidant activity, prevention of lipid peroxide formation and monoamine oxidase inhibition, *J. Neurochem.*, 95, 68-78, 2005.

Zheng, H., Youdim, M.B. and Fridkin, M., Site-activated chelators targeting AChE and MAO for Alzheimer's therapy, *ACS Chem. Biol.*, 5, 603-610, 2010.