Ahmad Bagher Zainulabdeen Fawzi, PharmD, MSc, PhD

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Summary:

Ph.D. & M.Sc. in Pharmacology from Canada with experience in academia and pharmaceutical drug discovery. Teaching, managing, training and leading students and independent investigators. Expertise in general pharmacology, toxicology, molecular mechanism of drug action, receptor biology, G-protein-coupled receptors (GPCRs), signal transduction pathways, cardiovascular, central nervous system, and ophthalmology.

Academic Positions:

2024 – Present **Lecturer, Dept. of Pharmacology, Toxicology, and Clinical Pharmacy, *College of Pharmacy, Uruk University,*** Baghdad, **Iraq**

2019 – 2021 **Lecturer, Dept. of Pharmacology, Toxicology, and Clinical Pharmacy, *Faculty of Pharmacy, Ahlulbayt University,*** Karbala, **Iraq**

1987 – 1990 **Associate Research Scientist, Department of Pharmacology, *Yale University School of Medicine,*** New Haven, CT, **USA**

1985 – 1987 **Post-Doctoral Fellow, Department of Pharmacology & Therapeutics,** Cell Regulation Group, ***Faculty of Medicine, The University of Calgary,*** Calgary, Alberta, **Canada**

1980 – 1985 **PhD Graduate studies, Department of Pharmacology & Toxicology, *Faculty of Pharmaceutical Sciences, University of British Columbia,*** Vancouver, B.C., **Canada**

1978 – 1980 **MSc Graduate Studies, Department of Pharmacology, *Faculty of Medicine, Dalhousie University***, Halifax, N.S., **Canada**

1977 – 1978 **Assistant Lecturer, Dept. of Food Chemistry & Toxicology, *Faculty of Pharmacy, Tehran University,*** Tehran, **Iran**

1975 – 1977 **Research Investigator, Department of Pharmaceutical Sciences,** *Faculty of* ***Pharmacy, Tehran University,*** Tehran, **Iran**

Drug Discovery Positions:

2017 - 2017 **Project Director**, ***NEOMED Institute***, Montreal, Québec, **Canada**

2014 - 2016 **Vice President & Head of Discovery Biology***, **Advinus Therapeutics Ltd.***, Pune, Maharashtra, **India**

2010 – 2014 **Director**, ***GPCR BioSciences Inc.,*** Laval, Québec, **Canada**

2005 - 2009 **Director of Research**, ***Acucela Inc.***, Bothell, WA, **USA**

2004 - 2005 **Director of Drug Discovery Biology**, ***Avance Pharma Inc.***, Laval, Québec, **Canada**

1997 - 2003 **Sr. Principal Scientist, CV & CNS Pharmacology, *Schering-Plough Res. Inst.,*** NJ, **USA**

1990 - 1997 **Principal Scientist, CV & CNS Pharmacology, *Schering-Plough Res. Inst.,*** NJ, **USA**

Education:

Ph.D. (1985) **Division of Pharmacology and Toxicology**, ***Faculty of Pharmaceutical Sciences, The University of British Columbia*****,** Vancouver, British Columbia, **Canada.**

M.Sc. (1980) **Dept. of Pharmacology, *Faculty of Medicine, Dalhousie University***, Halifax, Nova Scotia, **Canada.**
Degree awarded with Distinction.

Pharm.D. (1974-75) **Faculty of Pharmacy, *Tehran University***, Tehran, **Iran**.
Thesis rated Excellent.

Publications: **65** research articles & **43** presentations and abstracts in international symposia.

Professional Activities at the New York Academy of Sciences (NYAS) (1990 - 2010)

Organized and chaired several symposia at the NYAS (**1990-2003**).

Member of the executive committee of the NYAS Biochemical Pharmacology Discussion Group (BPDG) (**1992 - 2010**).

Program coordinator of the BPDG at the NYAS (**2000 - 2001**).

SCIENTIFIC RESEARCH PUBLICATIONS in International Journals

1) Bavik, C., Henry, S.H., Zhang, Y. Mitts, K., McGinn, T., Budzynski, E., Pashko, A., Lieu, K.L., Zhong, S., Blumberg, B., Kuksa, V., Orme, M., Scott, I., **Fawzi, A.,** and Kubota, R. (**2015**): Visual Cycle Modulation as an Approach toward Preservation of Retinal Integrity, *PLoS ONE* 10(5): e0124940.

2) Sasikumar, T.K., Burnett, D.A., Greenlee, W.J., Smith, M., **Fawzi, A.,** Zhang, H., Lachowicz, J.E. (**2010**): Remote functionalization of **SCH 39166**: Discovery of potent and selective benzazepine dopamine D(1) receptor antagonists, *Bioorg. Med. Chem. Lett.* 20(3): 832-5.

3) Qiang, L., Sasikumar, T.K., Burnett, D.A., Su, J., Tang, H., Ye, Y., Mazzola, R.D., Jr., Zhu, Z., McKittrick, B.A., Greenlee, W.J., **Fawzi, A.,** Smith, M., Zhang, H., Lachowicz, J.E. (**2010**): Dicovery of new **SCH 39166** analogs as potent and selective dopamine D(1) receptor antagonists, *Bioorg. Med. Chem. Lett.* 20(3): 836-40.

4) McLeod, R.L., Tulshian, D.B., Bolser, D.C., Varty, V.B., Baptista, M., Fernandez, X., Parra, L.E., Zimmer, J.C., Erickson, C.H., Ho, G.D., Jia, Y., Ng, F.W., Korfmacher, W., Xu, X., Veals, J., Smith-Torhan, A., Wainhaus, S., **Fawzi, A.B.,** Austin, T.M., van Heek, M., Hey, J.A. (**2010**): Pharmacological profile of the NOP agonist and cough suppressing agent **SCH 486757** (8-[Bis(2-Chlorophenyl)Methyl]-3-(2-Pyrimidinyl)-8-Azabicyclo[3.2.1]Octan-3-Ol) in preclinical models, *Eur. J. Pharmacol.* 630(1-3):112-20.

5) McLeod, R.L., Tulshian, D.B., Ho, G.D., Fernandez, X., Bolser, D.C., Parra, L.E., Zimmer, J.C., Erickson, C.H., **Fawzi, A.B.,** Jayappa, H., Lehr, C., Erskine, J., Smith-Torhan, A., Zhang, H., and Hey, J.A. (**2009**): Effect of a novel NOP receptor agonist (**SCH 225288**) on guinea pig irritant-evoked, feline mechanically induced and canine infectious Tracheobronchitis cough, *Pharmacology* 84 (3): 153-161.

6) Zhu, Z., Sun, Z.Y., Ye, Y., McKittrick, B., Greenlee, W., Czarniecki, M., **Fawzi, A.,** Zhang, H., and Lachowicz, J.E. (**2009**): Design and discovery of 1,3-benzodiazipines as novel dopamine antagonists, *Bioorg. Med. Chem. Lett.* 19 (17): 5218-5221.

7) Ho, G.D., Anthes, J., Bercovici, A., Caldwell, J.P., Cheng, K.C., Cui, X., **Fawzi, A.,** Fernandez, X., Greenlee, W.J., Hey, J., Korfmacher, W., Lu, S.X., McLeod, R.L., Ng, F., Torhan, A.S., Tan, Z., Tulshian, D., Varty, G.B., Xu, X., and Zhang, H. (**2009**): The discovery of tropane derivatives as nociceptin receptor ligands for the management of cough and anxiety, *Bioorg. Med. Chem. Lett.* 19(9): 2519-2523.

8) Yang, S.W., Ho, G., Tulshian, D., Greenlee, W.J., Tan, Z., Zhang, H., Smith-Torhan, A., **Fawzi, A.,** Anthes, J., Lu, S., Varty, G., Fernandez, X., McLeod, R.L., and Hey, J. (**2009**): Identification of 3-substituted N-benzhydryl-nortropane analogs as nociceptin receptor ligands for the management of cough and anxiety, *Bioorg. Med. Chem. Lett.* 19(9): 2482-2486.

9) Caldwell, J.P., Matasi, J.J., Fernandez, X., McLeod, R.L., Zhang, H., **Fawzi, A.,** and Tulshian, D.B. (**2009**): Synthesis and structure-activity relationships of N-substituted spiropiperidines as nociceptin receptor ligands: Part 2, *Bioorg. Med. Chem. Lett.* 19(4): 1164-1167.

10) Varty, G. B., Lu, S. X., Morgan, C. A., Cohen-Williams, M. E., Hodgson, R. A., Smith-Torhan, A., Zhang, H., **Fawzi, A. B.,** Graziano, M. P., Ho, G. D., Matasi, J., Tulshian, D., Coffin, V. L., and Carey, G. J. (**2008**): The anxiolytic-like effects of the novel, orally active nociceptin opioid receptor agonist 8-[bis(2-Methylphenyl)methyl]-3-3phenyl-8-azabicyclo[3.2.1]octan-3-ol (**SCH-221510**), *J. Pharmaccol. Exp. Therap.* 326 (2): 672-682.

11) Laabich, A., Manmoto, C. C., Kuksa,V., Leung, D. W., Vissvesvaran, G. P., Karliga, I., Kamat, M., Scott, I. L., **Fawzi, A.**, and Kubota, R. (**2007**): Protective effects of myricetin and related flavonols against A2E and light mediated-cell death in bovine retinal primary cell culture, *Exp. Eye Res.*85 (1): 154-165.

12) Ho, G. D., Bercovici, A., Tulshian, D., Greenlee, W. J., **Fawzi, A.**, Smith Torhan, A., and Zhang, H. (**2007**): Synthesis and structure-activity relationships of 4-hydroxy-4-phenylpiperidines as nociceptin receptor ligands: Part 1, *Bioorg. Med. Chem. Lett.* 17 (11): 3023-7.

13) Ho, G. D., Bercovici, A., Tulshian, D., Greenlee, W. J., **Fawzi, A.**, Fernandez, X., McLeod, R. L., Smith Torhan, A., and Zhang, H. (**2007**): Synthesis and structure-activity relationships of 4-hydroxy-4-phenylpiperidines as nociceptin receptor ligands: Part 2, *Bioorg. Med. Chem. Lett.* 17 (11): 3028-33.

14) Caldwell, J. P., Matasi, J., Zhang, H., **Fawzi, A.**, and Tulshian, D. B. (**2007**): Synthesis and structure-activity relationships of N-substituted spiropiperidines as nociceptin receptor ligands, *Bioorg. Med. Chem. Lett.* 17 (8): 2281-2284.

15) Leung, D. W., Lindlief, L. A., Laabich, A., Vissvesvaran, G. P., Kamat, M., Lieu, K. L., **Fawzi, A.**, and Kubota, R. (**2007**): Minocycline Protects Photoreceptors from Light and Oxidative Stress in Primary Bovine Retinal Cell Culture, *Investigative Ophthalmology & Visual Science* 48(1): 412-421.

16) Laabich, A., Vissvesvara, G. P., Lieu, K. L., Murata, K., McGinn, T. E., Manmoto, C. C., Sinclair, J. R., Karliga, I., **Fawzi, A.**, and Kubota, R. (**2006**): Protective effect of crocin against blue and white light mediated photoreceptor cell death in bovine and primate retinal primary cell culture, *Investigative Ophthalmology & Visual Science* 47 (7): 3156-3163.

17) Sasikumar, T. K., Burnett, D. A., Zhang, H., Smith-Torhan, A., **Fawzi, A.**, and Lachowicz, J. (**2006**): Hydrazides of clozapine: A new class of D(1) dopamine receptor subtype selective antagonists. *Bioorg. Med. Chem. Lett.* 16 (17): 4543-7.

18) Su, J., Tang, H., McKittrick, B. A., Burnett, D. A., Zhang, H., Smith-Torhan, A., **Fawzi, A.**, and Lachowicz, J. (**2006**): Modification of the clozapine structure by parallel synthesis. *Bioorg. Med. Chem.* Lett. 16 (17): 4548-53.

19) Matasi, J. J., Caldwell, J. P., Zhang, H., **Fawzi, A.,** Higgins, G. A., Cohen-Williams, M. E., Varty, G. B., and Tulshian, D. B. (**2005**): 2-(2-Furanyl)-7-phenyl[1,2,4]triazolo[1,5-c]pyrimidin-5-amine analogs as adenosine A(2A) antagonists: The successful reduction of hERG activity. Part 2, *Bioorg. Med. Chem. Lett.* 15 (16): 3675-8.

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21) Kiselgof, E., Tulshian, D.B., Arik, L., Zhang, H., and **Fawzi, A.** (**2005**): 6-(2-Furanyl)-9H-purine-2-amine derivatives as A(2A) adenosine antagonists, *Bioorg. Med. Chem. Lett.* 15 (8): 2119-22.

22) Wu, W.-L, Burnett, D. A., Spring, S., Greenlee, W. J., Smith, M., Favreau, L., **Fawzi, A.,** Zhang, H., and Lachowicz, J. E. (**2005**): Dopamine D1/D5 receptor antagonists with improved pharmacokinetics: design, synthesis, and biological evaluation of phenol bioisosteric analogues of benzazepine D1/D5 antagonists, *J. Med. Chem.* 48 (3): 680-693.

23) McLeod, R., Jia, Y., Fernandez, X., Parra, L. E., Wang, X., Tulshian, D., Kiselgof, E. J., Tan, Z., **Fawzi, A. B.,** Smith-Torhan, A., Zhang, H., and Hay, J. A. (**2004**): Antitussive profile of the NOP agonist Ro-64-6198 in the Guinea Pig, *Pharmacology* 71: 143-149.

24) Wu, W.-L., Caplen, M.A., Domalski, M.S., Zhang, H., **Fawzi, A.,** and Burnett, D. (**2002**): Synthesis and structure-activity relationship of aminoalkylazetidines as ORL1 receptor ligands, *Bioorganic Med. Chem. Letters* 12: 3157-3160.

25) Strizki, J. M., Xu, S., Wagner, N. E., Wojcik, L., Liu, J., Hou, Y., Endres, M., Palani, A., Shapiro, S., Clader, J. W., Greenlee, W. J., Tagat, J., McCombie, S., Cox, K., **Fawzi, A. B.,** Chou, C.-C., Puglise-Sivo, C., Davies, L., Moreno, M. E., Ho, D. D., Trkola, A., Stoddart, C. A., Moore, J. P., Reyes, G. R., and Baroudy, B. M. (**2001**): SCH-C (**SCH 351125**), an orally bioavailable, small molecule antagonist of the chemokine recepror CCR5, is a potent inhibitor of HIV-1 infection *in vitro* and *in vivo*, *Proc. Natl. Acad. Sci. USA,* 98: 12718-12723.

26) McLeod, R. B., Parra, L. E., Mutter, J. C., Erickson, C. H., Carey, G. J., Tulshian, D. B., **Fawzi, A. B.**, Smith-Torhan, A., Egan, R. W., Cuss, F. M., and Hey, J. A. (**2001**): Nociceptin inhibits cough in the guinea pig by activation of ORL_1 receptors, *Br. J. Pharmacol.* 132: 1175-1178.

27) **Fawzi, A. B.,** Macdonald, D., Benbow, L. L., Smith-Torhan, A., Zhang, H., Weig, B. C., Ho, G., Tulshian, D., Linder, M., and Graziano, M. (**2001**): **SCH-202676**: An allosteric modelator of both agonist and antagonist binding to G protein-coupled receptors, *Mol. Pharmacol.* 59: 30-37.

28) Coboz, M. R., Rivelli, M., Egan, R. W., Tulshian, D., Matasi, J., **Fawzi, A. B.,** Benbow, L., Smith-Torhan, A., Zhang, A., and Hey, J. (**2000**): Nociceptin/Orphanin FQ inhibits capsaicin-induced bronchochonstriction in isolated guinea pig lung, *Eur. J. Pharmacol.* 402: 171-179.

29) Ho, G. D., Silverman. L., Bercovici, A., Puchalski, C., Tulsian, D., Xia, Y., Czarniecki, M., Green, M., Cleven, R., Zhang, H., and **Fawzi, A.** (**1999**): Synthesis and evaluation of potent and selective c-GMP phosphodiesterase inhibitors, *Bioorganic & Medicinal Chemistry Letters* 9: 7-12.

30) Xia, Y., Chackalamannil, S., Czarniecki, M., Tsai, H., Vaccaro, H., Cleven, R., Cook, J., **Fawzi, A.**, Watkins, R., and Zhang, H. (**1997**): Synthesis and evaluation of polycyclic pyrazolo[3,4-*d*]pyrimidines as PDE1 and PDE5 cGMP phosphodiesterase inhibitors, *J. Med. Chem.* 40: 4372-4377.

31) **Fawzi, A. B.**, Zhang, H., Weig, B., Hawes, B., and Graziano, M. P. (**1997**): Nociceptin activation of the human ORL_1 receptor expressed in Chinese Hamster ovary cells: Functional homology with opioid receptors*, Eur. J. Pharmacol.* 336: 233-242.

32) Van Heek, M., Compton, D. S., France, C. F., Tedesko, R. P., **Fawzi, A. B.**, Graziano, M. P., Sybertz, E. J., Strader, C. D., and Davis, H. R., Jr. (**1997**): Diet-induced obese mice develop peripheral, but not central, resistance to leptin, *J. Clin. Invest*. 99: 385-390.

33) Hwa, J., **Fawzi, A. B.**, Graziano, M. P., Ghibaudi, L., Williams, P., Van Heek, M., Davis, H., Rudinski, M., Sybertz, E., and Strader, C. D. (**1997**): Leptin increases energy expenditure and selectively promotes fat metabolism in *ob/ob* mice, *Am. J. Physiol*. 41: R1204-R1209.

34) Vemulapalli, S., Chintala, M., Stamford, A., Watkins, R., Chiu, P., Sybertz, E., and **Fawzi, A. B.** (**1997**): Renal effects of **SCH 54470**: A triple inhibitor of ECE, ACE and NEP, *Cardiovascular Drug Review* 15: 260-272.

35) **Fawzi, A. B.** (**1997**): The Langendorff Heart, In "Measurement of Cardiac Function", J. H. McNeill, Ed., CRC Press: pp. 1-9.

36) Ahn, H.-S., Bercovici, A., Boykow, G., Bronnenkant, A., Chackalamannil, S., Chow, J., Cleven, R., Cook, J., Czarniecki, M., Domalski, C., **Fawzi, A.**, Green, M., Gundes, A., Ho, G., Laudicina, M., Lindo, N., Ma, K., Manna, M., McKittrick, B., Mirzai, B., Nechuta, T., Neustadt, B., Puchalski, C., Pula, K., Silverman, L., Smith, E., Stamford, A., Tedesco, R., Tsai, H., Tulsian, D., Vaccaro, H., Watkins, R. W., Weng, X., Witkowski, J. T., Xia, Y., and Zhang, H. (**1997**): Potent tetracyclic guanine inhibitors of PDE1 and PDE5 cyclic guanosine monophosphate phosphodiesterases with oral antihypertensive activity, *J. Med. Chem.* 40: 2196-2210.

37) **Fawzi, A. B.**, Zhang, H., van Heek, M., and Graziano, M. (**1996**): Purification of milligram quantities of human leptin from recombinant *E. coli*, *Horm. Metab. Res.* 28: 694-697.

38) Hwa, J. J., Ghibaudi, L., Compton, D., **Fawzi, A. B.**, and Strader, C. D. (**1996**): Intrcerebroventricular injection of leptin increases thermogenesis and mobilizes fat metabolism in *ob/ob* mice, *Horm. Metab. Res.* 28: 659-663.

39) Van Heek, M., Mullins, D. E., Wirth, M. A., Graziano, M. P., **Fawzi, A. B.**, Compton, D. S., France, C. F., Hoos, L. M., Casale, R. L., Sybertz, E. J., Strader, C. D., and Davis, H. R., Jr., (**1996**): The relationship of tissue localization, distribution and turnover to feeding after intraperitoneal ^{125}I-leptin administration to *ob/ob* and *db/db* mice, *Horm. Metab. Res.* 28: 653-658.

40) Vemulapalli, S., Watkins, R. W., Chintala, M., Davis, H., Ahn, H.-S., **Fawzi, A.**, Tulsian, D., Chiu, P., Chatterjee, M., Lin, C.-C., and Sybertz, E. J. (**1996**): Antiplatelet and antiproliferative effects of **SCH 51866**, a novel type 1 and 5 phosphodiesterase inhibitor, *J. Cardivascular Pharmacology* 28: 862-869.

41) McKittrick, B. A., Stamford, A. W., Weng, X., Ma, K., Chakalamannil, S., Czarniecki, M., Cleven, R., and **Fawzi, A. B.** (**1996**): Design and synthesis of phosphinic acids that triply inhibit endothelin converting enzyme, angiotensin converting enzyme and neutral endopeptidase 24.11, *Bioorganic & Medicinal Chemistry Letter* 6: 1629-1634.

42) Chakalamannil, S., Chung, S., Stamford, A. W., McKittrick, Wang, Y., Tsai, H., Cleven, R., **Fawzi, A.**, and Czarniecki, M. (**1996**): Highly potent and selective inhibitors of endothelin converting enzyme, *Bioorganic & Medicinal Chemistry Letters* 6: 1257-1260.

43) Neustadt, B., Wu, A., Smith, E. M., Nechuta, T., **Fawzi, A. B.,** and Zhang, H. and Ganguli, A. K. (**1995**): A case study of combinatorial librarire: Endothelin receptor antagonist hexapeptides, *Bioorganic & Medicinal Chemistry Letters* 5: 2041-2044.

44) **Fawzi, A. B.,** Cleven, R. M. and Wright, D. L. (**1994**): A rapid and selective endothelin-converting enzyme assay: Characterization of a phosphoramidon-sensitive enzyme from guinea pig lung membrane, *Anal. Biochem.* 222: 342-350.

45) Pachter, J. A., Mayer-Ezell, R., Cleven, R. M. and **Fawzi, A. B.** (**1993**): Endothelin (ET_A) receptor number and calcium signaling are upregulated by protein kinase C-β1 overexpression, *Biochemical Journal* 294: 153-158.

46) **Fawzi, A. B.**, Fay, D. S., Murphy, E. A., Tamir, H., Erdos, J. J. and Northup, J. K. (**1991**): Rhodopsin and the retinal G-protein distinguish among G-protein βγ subunit forms, *J. Biol. Chem.* 266:12194-12200.

47) Tamir, H., **Fawzi, A. B.**, Tamir, A., Evans, T. and Northup, J. K. (**1991**): G-Protein βγ forms: Identity of β and diversity of γ subunits, *Biochemistry* 30: 3929-3936.

48) **Fawzi, A. B.** and Northup, J. K. (**1990**): Guanine nucleotide binding characteristics of transducin: Essential role of rhodopsin for rapid exchange of guanine nucleotides, *Biochemistry* 29: 3804-3812.

49) Tamir, A., **Fawzi, A. B.** and Northup, J. K. (**1990**): Unique guanine nucleotide binding properties of the human placental GTP-binding protein Gp, *Biochemistry* 29: 6947-6954.

50) Evans, T., **Fawzi, A.**, Fraser, E. D., Brown, M. L. and Northup, J. K. (**1987**): Purification of a β_{35} form of the $\beta\gamma$ complex common to G-proteins from human placental membranes, *J. Biol. Chem*. 262: 176-181.

51) **Fawzi, A. B.** and McNeill, J. H. (**1985**): Effect of chronic streptozotocin-induced diabetes on [^{3}H]ouabain binding in the rat left ventricle, *Life Sciences* 36: 1977-1981.

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55) Bailey, L. E. and **Fawzi, A. B.** (**1985**): Calcium binding to cardiac myocytes protected from proteolytic enzyme activity, *Biochem. Biophys. Acta* 839: 199-208.

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58) Farsam, H., Yahya-Saeb, H. H. and **Fawzi, A.** (**1981**): Spectrophotometric determination of codeine in pharmaceutical preparations, *Int. J. Pharmaceutics* 7: 343-348.

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61) Maghssoudi, R. H. and **Fawzi, A. B.** (**1978**): Direct Spectrophotometric determination of thebaine in Arya II population capsules of *Papaver bracteatum Lindl, J. Pharm. Sci*. 67: 32-35.

62) Kamangar, T. and **Fawzi, A. B.** (**1978**): Spectrophotometric determination of vitamin A in oils and fats, *J. Assoc. Off. Anal. Chem.* 61: 753-755.

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RESEARCH PRESENTATIONS in INTERNATIONAL CONFERENCES

1) Umrani, D., Bhuniya, D., Tambe, S., Shaikh, N., Thakkar, M., Patel, J. S., Parekar, N. V., De, S., Athvankar, S., Joshi, D., Dharamashi, A., Bhadra, S., Kini, M., Kandikree, V., Madgula, V., Tambe, A., Mahajan, V., **Fawzi, A.,** Kulkarni, B. A., and Mookhtiar, K. (**2016**): GPR91 antagonism: A novel approach for the treatment of nonalcoholic steohepatitis (NASH), *AASLD*, *The Liver Meeting 2016,* Boston, MA, USA, Nov. 11-15 (2016), Hepatology Vol. 64 No. 1 (SUPPL), Page 793A, Abst. # 1600.

2) Zhu, L., Leung, D., Lindlief, L., Kamat, M., Tzekov, R., Kubota, R., and **Fawzi, A.** (**2008**): Protective activity of myricetin-like flavones and cyanidines in light-induced retinal damage, *ARVO 2008*, Ft Lauderdale FL, USA, April 27-May 1 (2008), program # 4415.

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