

CURRICULUM VITAE

ISA M. HUSSAINI

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CITIZENSHIP

U.S.A

EDUCATION

- 1976-79 B.Sc. (Hon) Pharmacy, Amadu Bello University, Zaria
1982-83 M.Sc., Pharmacology, Chelsea College, University of London, England.
1984-87 Ph.D., Pharmacology, King's College, University of London, England.
1997-99 MBA, Averett University, Danville, VA USA

PROFESSIONAL AND GRADUATE TRAINING

- 1979-1981: Pharmacy Internship, General Hospital, Maiduguri.
1982-1983: Graduate Program, Chelsea College, University of London (Dissertation: Physiological consequences of adrenoceptor activation; Thesis: Some aspects of the pharmacology of thiorphan (M.Sc.).
1984-1987: Graduate Program, King's College, University of London (Pharmacology, Thesis: Effects of prostanoids on platelet aggregation and fibrinolysis: Pharmacological activity of fibrin(ogen) degradation products. (Ph.D.).
1987-1989: Postdoctoral fellow with T.Y. Shen, Ph.D. Department of Chemistry, University of

Virginia: Biochemical properties of PAF and the screening for potential PAF-receptor antagonists.

- 1989-1990: Postdoctoral fellow with S.L. Gonias, M.D., Ph.D., Department of Pathology, University of Virginia: Purification and biochemical properties of α_2 - macroglobulin and its receptor regulation in different cell types.
- 1990-1992: Senior Lecturer, Faculty of Pharmaceutical Sciences, Ahmadu Bello University, Zaria, Nigeria.
- 1992 Chief Research Fellow, National Institute for Pharmaceutical Development (NIPRD), Abuja, Nigeria.
- 1992-1994: Research Associate (Neuropathology), Department of Pathology, University of Virginia School of Medicine.
- 1995-2004: Assistant Professor of Research (Non-tenure track), Department of Pathology, University of Virginia School of Medicine.
- 2002-2004: Assistant Professor of Pathology and Neuroscience (Tenure-track), Department of Pathology, University of Virginia School of Medicine.
- 2004-2008: Associate Professor of Pathology and Neuroscience (Tenure-track), Department of Pathology, University of Virginia School of Medicine.
- 2008-Present: Associate Professor of Pathology and Neuroscience (Tenured), Department of Pathology, University of Virginia School of Medicine.
- 2004-Present: Visiting Professor Department of Pharmacology and Clinical Pharmacy, ABU Zaria, Nigeria.

PROFESSIONAL AND STUDY SECTION MEMBERSHIP

1. Society for Neuro-oncology (Founding member)
2. **Regular Member** of American Cancer Society Tumor Biochemistry and Endocrinology Study Section 2008-2011.
3. **Regular Member** of NSD-C Study Section (NINDS/NIH) 2003 – 2007.
4. Ad hoc (American Cancer Society (2004-2007)
5. Ad hoc NCI P01 Microenvironment I cluster (NIH) (2004)
6. Ad hoc Tumor Cell Biology Study Section (NIH/CSR) (Feb 2007 and 2008)
7. **Regular Member** of Tumor Cell Biology (TBC/NIH) Study Section 2008-2012
8. Ad hoc Reviewer for Israel Science Foundation

9. Ad hoc International Reviewer for Korea Science and Engineering Foundation (KOSEF)
10. Reviewer for Qatar National Research Fund (QNRF)
11. Ad hoc Reviewer for French National Science Foundation

MEMBERSHIP OF RESEARCH AND PROFESSIONAL SOCIETIES

- . American Association for Cancer Research
- . Society for Neuroscience
- . Society For Neuro-Oncology

TEACHING AND SUPERVISION

- **Senior Lecturer: Department of Pharmacology and Clinical Pharmacy; Ahmadu Bello University, Zaria**

Visiting Professor, Department of Pharmacology, Ahmadu Bello University (2004 – Present).

- **School of Medicine, University of Virginia.**

Director of curriculum for Pathology program

Director of admissions for Molecular Medicine program (Departments of Pathology, Pharmacology and Physiology; 2004-2007).

Course Director of Neurobiology (NESC 703; 2004-2007)

M.D./Ph.D. **Mentor** (2003-present).

Coordinator of the Department of Pathology Research Progress Report meeting: a bi-weekly event where trainees (postdocs and graduate students) and senior laboratory technicians present late-breaking research findings in their laboratories (2002-2004).

Coordinator of the Biotechnology Training Program Research Progress Report meeting, a monthly event where trainees (graduate students) present updates on their research activities and internship experience (2001-2003).

Biotechnology Training Program faculty member: Minor mentor for Staci J. Walton and

Shannon Beck (Dr. Gordon Laurie's laboratory – Department of Cell Biology).

Molecular Medicine - BIMS 814: Topics in the molecular basis for human disease- Diffuse-type Astrocytic Tumors (2002 – Present; See Students' assessment attached).

Physiology/CTS Course: Autonomic Nervous System -autonomic transmitters and receptors, signal transduction mechanisms, and autonomic control of the cardiovascular system (2004).

GRADUATE THESIS COMMITTEE STUDENTS

1. Shannon Beck (Dr. Gordon Laurie's laboratory – Department of Cell Biology, University of Virginia). Thesis Proposal: Strategy for Identification of Lacritin's Receptor (2002-2004).
2. Antonio R. Ubiera (Dr. Giorgio Carta's Laboratory, Department of Chemical Engineering UVA). Thesis Title: Protein Adsorption and Transport in Agarose and Dextran-Grafted Ion-Exchange Media. (2001-2004).
3. Shawn Carbonell. (Dr. James Mandell's Lab, Department of Pathology, UVA) Thesis Title: Microglial migration following brain injury (2003-2005).
4. Tracy Trodder (Dr. Kevin Lee's Lab, Department of Neuroscience, UVA) Thesis Title: TISH Model of Epilepsy (2004 – 2007).
5. Avin Lalmansingh (Dr. Rosalie Uht's Lab, Department of Neuroscience, UVA) Thesis Title: The differential effects of ER α and ER β on *crh* transcriptional activity is a function of the cofactors recruited and chromatin modifications associated with these ERs at the promote (2005-2008).
6. Mark Fitzgerald (Dr. Kevin Lee's Lab, Department of Neuroscience, UVA) Thesis Title: Cellular and Molecular Mechanisms of Cortical Malformation (2006-Present).
7. Valerie Siclari (Drs JM Chirgwin and TA Guise Lab, UVA Department of Biochemistry) Adrenomedullin overexpression increases breast cancer growth at the primary site and in bone metastases (2009- Present).
8. Kisha Young (Dr. James Bennett, UVA Department of Neurology) The Beta-Amyloid and Mitochondrial Connection in Alzheimer's Disease (2008-2009)
9. Olugbemisola Oredein McCoy (Dr. Cato Laurencin Lab, UVA Department of Biomedical Engineering) Vascular Endothelial Growth Factor-Loaded Polyphosphazene

NanoHydroxyapatite Composite Scaffolds: Promoting Neovascularization (2006-2009).

CURRENT TRAINEES IN THE LAB

1. Samson Amos (Ph.D. 2002; Department of Pharmacology, University of Nsuka, Nigeria) – Research Associate.
2. Zak Kohutek (MD/Ph.D. Student, University of Virginia) –NRSA (NIH) Fellow.
3. Barbara C Merk (Ph.D Student, University of Virginia) – UVA Biotechnology Training Grant Fellow.
4. Zachary Bush (Instructor: Department of Internal Medicine)

PAST TRAINEES

1. Morry D. Brown (MD/Ph.D). Now Assistant Professor, Department of Radiology, University of North Carolina.
2. Patrick M. Martin (Ph.D). Now an Assistant Professor at North Carolina State University.
3. Sean Aeder (Research Associate). Now works with the National Patent Foundation
4. Nadir Badr (Neuroscience Graduate Student)
5. Adam Mueller (Biochemistry Graduate Student) University of Virginia.
6. Kelsey Flake (Neuroscience Graduate Student) University of Virginia.
7. Lorin Henrich (Ph.D. Microbiology, University of Virginia) – Research Associate.
8. Rana Abdel-fattah (Ph.D. University of Newcastle, UK) – Research Associate.
9. Yunge Zhao (M.D., Ph.D., Beijin University, China) – Research Associate.

INVITED SPEAKER

1. Hussaini, I. M. Hermelin Brain Tumor Center (Henry Ford Health System) February 15-16, 2006.
2. Hussaini, I. M. Department of Neuroscience, University of Virginia, Roles of PKC-eta and LRP in Glioblastoma Invasive Growth, February **2005**.
3. Abdel-Fattah R. and Hussaini I.M. British Cancer Research Meeting. LRP is Differentially Expressed in Human Glioblastoma Cell Lines and Its Low Expression is Related to Tumor Progression, June 27-30, **2004** (Manchester, UK)
4. Hussaini, I.M. The Neuroscience society of Nigeria, Ahmadu Bello University, Current Trends in the Diagnosis and Treatment of Brain Tumors, November **2004**.

5. Hussaini, I.M. Department of Anesthesiology University of Virginia, PKC-eta Mediates Astrocytoma Mitogenesis and Radioresistance, April **2004**.
6. Hussaini, I.M. Virginia Union University, Roles of LRP and PKC in Brain Tumor Growth and Invasion, October **2004**.
7. Hussaini, I. M. Inhibition of Caspase-3 or 9 Activity Blocks Apoptosis I Glioblastoma Cells. AACR-Annual Neurotumor Club Meeting. July 13, **2003**, Washington DC.
8. Hussaini, I.M. The Role of LRP and PKC- η in Astrocytic Tumor Invasive Growth. Director's Seminar, Winship Cancer Institute, Emory University, Atlanta, GA. June 6, **2003**.
9. Hussaini, I.M. The Role of PKC- η in Astrocytic Tumor Invasive Growth. Department of Neurological Surgery, University of Virginia, Charlottesville, VA. 2002
10. Hussaini, I.M. The Role of PKC- η in Astrocytic Tumor Invasive Growth. Department of Anesthesiology, University of Virginia, Charlottesville, VA. 2001.
11. Hussaini, I.M. Protein Kinase C- η Regulates Resistance to UV- and γ -Irradiation-induced Apoptosis by Preventing Caspase-9 Cleavage in Astrocytomas. The Society of Neuro-Oncology Fifth annual Meeting (Chicago, IL, November 9-12, 2000).
12. Hussaini, I.M. Protein Kinase C- η Selectively Mediates a Proliferative Response to Phorbol 12-Myristate-13-Acetate in Glioblastoma Cells. 29th Annual Meeting society for Neuroscience, Miami Beach, Florida. October 23-28, 1999.
13. Hussaini, I.M. Differential Regulation of Protease Nexin II (PN-II) Secretion by Insulin-like Growth Factor-1 (IGF-1) and Tumor Necrosis Factor (TNF α) in Rat C6 Glioma Cells. Society for Neuroscience 25th Annual Meeting, Symposium, Session 208.4-Beta-amyloid secretion I No. 00765. San Diego, CA. November 13, 1995.
14. Hussaini, I.M. (1992) The principal Actors, Their Roles and Linkages in a Health Management Information System. National Health Management Information System Conference Proceeding, Abuja, Nigeria. Chapter XXXV, 392-401.

RESEARCH FUNDING

A. Current Funding

1. **RO1 CA90851** Principal Investigator: Isa M. Hussaini (30% effort)

Title of Project: The Role of PKC- η in Regulating Astrocytoma invasive Growth
Funding Period: 09/2008 – 2012
Direct Cost: \$150,000/year

B. Past Funding

1. R29 NS35122

Principal Investigator: Isa M. Hussaini (100% effort)

Title of Project: Regulation and Function of Low Density Lipoprotein Receptor-related Protein (LRP) in the Central Nervous System.
Funding Period: 1997-2003
Total Award: \$526,715.00 (ranking percentile of 12.6)

2. Genentech Research Collaborative Agreement: *Expression and Activation of HER/ErbB Receptors in Meningiomas.*

Total Amount: \$115,000
Principal Investigator: Isa M. Hussaini

3.RO1 CA90851

Principal Investigator: Isa M. Hussaini (50% effort)

Title of Project: The Role of PKC- η in Regulating Astrocytoma invasive Growth
Funding Period: 07/2002 – 2007

4. RO1 NS35122 (Competing Renewal)

Principal Investigator: Isa M. Hussaini (50% effort)
Title of Project: The role of LRP in Glioblastoma Migration and Invasion
Funding Period: 06/2003 – 6/2008

C. PENDING SUPPORT

1. The chemoprevention and therapeutic properties of *N. sativa* against malignant primary brain tumors (Revised R01 submitted March 2009)

PUBLICATIONS

REFEREED JOURNALS (65)

1. Zhao Y, Xiao A, Dipierro CG, Carpenter JE, Abdel-Fattah R, Redpath GT, Lopes MB, **Hussaini IM** (2010) An extensive invasive intracranial human glioblastoma xenograft model: role of high level matrix metalloproteinase 9. Am. J. Pathol. **176**(6):3032-49.
2. Amos S, Redpath GT, Dipierro CG, Carpenter JE, **Hussaini IM** (2010) Epidermal growth factor receptor-mediated regulation of urokinase plasminogen activator expression and glioblastoma invasion via C-SRC/MAPK/AP-1 signaling pathways. J Neuropathol Exp Neurol. **69**(6):582-92.
3. Bush ZM, Lopes MB, **Hussaini IM**, Jane JA Jr, Laws ER Jr, Vance ML (2010) Immunohistochemistry of COUP-TFI: an adjuvant diagnostic tool for the identification of corticotroph microadenomas. Pituitary. 13(1):1-7.
4. Kohutek Z A, diPierro CG, Redpath, GT, and **Hussaini IM** (2009) ADAM-10-Mediated N-cadherin Cleavage is PKC- α Dependent and Promotes Glioblastoma Cell Migration. J. Neuroscience. 29(14):4605-15.
5. Li Y, Guessous F, Kwon S, Kumar M, Ibidapo O, Fuller L, Johnson E, Lal B, **Hussaini I**, Bao Y, Lattera J, Schiff D, Abounader R (2008) PTEN has tumor-promoting properties in the setting of gain-of-function p53 mutations. Cancer Res. 68(6):1723-31.
6. Zhao Y, Xiao A, Dipierro CG, Abdel-Fattah R, Amos S, Redpath GT, Carpenter JE, Pieper RO, **Hussaini IM**. (2008) H-Ras increases urokinase expression and cell invasion in genetically modified human astrocytes through Ras/Raf/MEK signaling pathway. Glia. **56**(8):917-24.

7. Zhao Y, Lyons CE Jr, Xiao A, Templeton DJ, Sang QA, Brew K, **Hussaini, IM** (2008) Urokinase directly activates matrix metalloproteinases-9: a potential role in glioblastoma invasion. Biochem Biophys Res Commun. **369**(4):1215-20.
8. Gong J, Zhao Y, Abdel-Fattah R, Amos S, Xiao A, Lopes MB, **Hussaini, IM** and Laws, ER (2008) Matrix metalloproteinase-9, a potential biological marker in invasive pituitary adenomas. Pituitary **11**(1):37-48.
9. Amos, S., diPierro CG, Carpenter, JE, Xiao, A, Kohutek, Z, Redpath, GT, Zhao, Y, Wang, J, Mut, M, Shaffrey ME and **Hussaini, IM** (2007) Protein Kinase C- α -mediated regulation of Low Density Lipoprotein Receptor Related Protein and urokinase increases Astrocytoma Invasion Cancer Research **67**: 10241-10251.
10. Abubakar, MS, Musa, AM, Ahmed, A and **Hussaini, IM** (2007) The Perception and Practice of Traditional Medicine in the Treatment of Cancers and Inflammations by the Hausa and Fulani Tribes of Northern Nigeria. Ethnopharmacology **111**(3):625-629.
11. Uht, RM, Martin, PP, Riggan AE and **Hussaini IM** (2007) The Protein Kinase C- η Induces Proliferation in Glioblastoma Cell Lines through an ERK/Elk-1 Pathway, Oncogene, **26**(20):2885-2893.
12. Martin PM, Aeder, SE, Chrestensen, AC, Sturgill, TW and **Hussaini IM** (2007) Phorbol Ester Induced Rapamycin Insensitive Cell Proliferation is Regulated by Protein Kinase C- η . Oncogene. **26**(3):407-14.
13. **Hussaini IM**, Trotter, C, Zhao, Y, Abdel-Fattah R, Amos, S, Xiao, A, Agi CU, Redpath, GT, Fang Z, Gilberto LKK, Lopes BS, Laws ER (2007) Differential Invasion-associated DNA Microarray Gene Expression Profiles in Non-functioning Pituitary Adenomas: The Role of MMP-9 in Pituitary Adenoma Invasion Am J Pathol. **170**(1):356-65.
14. Yau, J, Yaro, AH, Abubakar MS, Anuka, JA and **Hussaini IM** (2007) anticonvulsant activity of *Carissa edulis* (Vahl)(Apocynaceae) root bark extract. J. Ethnopharmacol. Doi:10.106/j.jep.2008.08.029.
15. Mut M, Polar G, Carpenter JE, Redpath GT, Larner J, Schiff D, **Hussaini IM**, Shaffrey ME (2007) Evaluation Of Lenalidomide Activity On Glioblastoma Cell Lines In Vitro. Journal of Neurological Sciences [Turkish] **24**:(1) # 10;29-37.
16. Wang J, Wang N, Xie J, Walton SC, McKown RL, Raab RW, Ma P, Beck SL, Coffman GL, **Hussaini IM**, Laurie GW (2006) Restricted epithelial proliferation by lacritin via PKC α -dependent NFAT and mTOR pathways. J Cell Biol. **174**(5):689-700.

17. Oria, RB, Vieira, MG, Pinkerton, RC, Costa CMD, Lopes, MB, **Hussaini IM**, Shi, W, Brito, GAC, Lima AAM, and Guerrant RL (2006) Apolipoprotein E knockout mice have Accentuated Malnutrition with Mucosal disruption and Blunted Insulin-like Growth Factor I Responses to Refeeding. Nutrition Res. **26**: 427-435.
18. Amos, S. Redpath, GT, Polar, G, McPheson, R, Schiff, D and **Hussaini, IM** (2006). Farnesylthiosalicylic Acid Induces Caspase Activation and Apoptosis in Glioblastoma Cells. Cell Death and Differentiation **13**(4):642-51.
19. Abdel-Fattah, R., Xiao, A., Bomgardner D., Clinton-Scott, P., Lopes M-B. S. and **Hussaini, I.M.** (2006) Differential Expression of HOX genes in Neoplastic and Non-neoplastic Astrocytes The J. of Pathol. **209**(1):15-24.
20. Martin P.M. and **Hussaini, I.M.** (2005). PKC- η as a Glioma Target. Expert Opinion on Therapeutic Targets **9**(2):299-313 (Review).
21. Aeder S. and **Hussaini, I.M.** (2006). "Transformation of normal astrocytes in a tumor phenotype" in Cell Cycle in the Central Nervous System (Edited by Damir Janigro).
22. Amos S., Martin P.M., Polar G.A., Parsons S.J., **Hussaini I.M.** (2005) Phorbol 12-Myristate 13-Acetate Induces Epidermal Growth Factor Receptor Transactivation via Protein Kinase C $\{\delta\}$ /c-Src Pathways in Glioblastoma Cells. J Biol.Chem. **280**(9):7729-38.
23. Aeder, S.E., Martin P.M., Soh J-W. and **Hussaini, I.M.** (2004) PKC- η Mediates Glioblastoma Cell Proliferation Through the Akt and mTOR Signaling Pathways. Oncogene. **23**(56):9062-9.
24. Elagib, K.E., Xiao M., **Hussaini, I.M.**, Delehanty, L.L., Palmer L.A., Racke, F.K., Birrer, M.J., Shanmugasundaram, G., McDevitt, MA., and Goldfarb, A.N. (2004) Jun Blockade of Erythropoiesis: Role for Repression of GATA-1 by HERP2. Mol. Cell. Biol. **24**(17):7779-94.
25. Amos S, Akah PA, Enwerem N, Chindo BA, **Hussaini IM**, Wambebe C, and Gamaniel K. (2004) Behavioural effect of Pavetta crassipes extract on rodents. Pharmacol. Biochem. Behav. **77**(4):751-759.
26. Amos S, Akah PA, Binda L, Enwerem NM, Ogundaini A, Wambebe C, **Hussaini IM**, Gamaniel KS.(2004) Hypotensive activity of the ethanol extract of Pavetta crassipes leaves. Biol. Pharm. Bull. **26**(12):1674-1680.
27. Sando J.J, Beals, J.K. and **Hussaini, I.M.** (2003) *Subcellular Translocation of PKC: Methods in Molecular Biology* edited by Alexandra Newton; **233**: 77-86.

28. Elias, W. J. Lopes, M. B. S., **Hussaini, I.M.**, Chadduck, J.B., Laws E.R., Jr. and Jane J.A. Sr. (2002) Hemangiopericytoma in the Setting of Acromegaly: Case Report. Endocrine Pathol.**13(3)**: 251-261.
29. **Hussaini, I.M.**, Sando , J.J., Carpenter, J.E., Redpath, G.T., Shaffrey, M.E. and VandenBerg, S.R (2002). Protein Kinase C- η Regulates Resistance to UV- and γ -Irradiation-induced Apoptosis by Preventing Caspase-9 Cleavage in Astrocytomas. Neuro-Oncology **4(1)**: 9-13.
30. Goldfarb, A.N., Delehanty, L.L., Wang, D., Racke, F.K. and **Hussaini, I.M.** (2001) Stromal inhibition of megakaryocytic differentiation correlates with blockade of signaling by PKC- ϵ and ERK/MAPK. J. Biol. Chem.**276**, 29526-29530.
31. **Hussaini, I.M.**, Karns, L.R., Griffith, V., Carpenter, J.E., Redpath, G.T., Sando, J.J. and VandenBerg, S.R. (2000) Phorbol 12-Myristate-13-Acetate Induces protein Kinase C- η -Specific proliferative Response in Astrocytic Tumor Cells. J. Biol. Chem. **275**: 22348-22354.
32. **Hussaini, I.M.**, Zhang, Y.H., Lysiak, J.J., and Shen, T.Y (2000) Dithiolane Analogs of Lignans Inhibit Interferon- β and Lipopolysaccharide-Induced Nitric Oxide Production in Macrophages. Acta Pharmacol. Sin. 21(10) 897-904.
33. Johnson, P.B., Abdurahman, E.M., Tiam, E.A., Abdu-Aguye, I. and **Hussaini, I.M.** (1999) *Euphorbia hirta* leaf extracts increase urine output and electrolytes in rats. J. Ethnopharmacology, 65; 63-69.
34. **Hussaini, I.M.**, Brown D.M, Weaver, A.M., Joan Carpenter, Karns, L.R., VandenBerg, S.R. and Gonias, S.L (1999). Stable Antisense RNA Expression Neutralizes the Activity of Low Density Lipoprotein Receptor-related Protein and Promotes Urokinase Accumulation in the Conditioned Media of an Astrocytic Tumor Cell Line. Antisense and Nucleic Acid Drug Dev. 9:183-190.
35. **Hussaini, I.M.**, Karns, L.R., Redpath, G.T., Carpenter, J. Gonias, S.L. and VandenBerg, S.R. (1999) Epidermal Growth Factor Differentially Regulates LDL Receptor-related Protein (LRP) Gene Expression in Neoplastic and Fetal Human Astrocytes. Glia, 25; 71-84.
36. Mandell J., **Hussaini, I.M.**, Weber, M.J. and VandenBerg, S.R. (1998) Immunohistochemical Localization of Activated MAP kinase in Reactive and Neoplastic Astrocytes. Am. J. Pathol. 153(50): 1411-1423.
37. Nguyen, D.H.D., **Hussaini, I.M.** and Gonias, S.L. (1998) Binding of Urokinase to its Receptor in MCF-7 Cells Activates Extracellular Signal-Regulated Kinase 1 and 2 which is Required for Increased Cellular Motility , J. Biol. Chem., **273**; 8502-8507.

38. Stephenson, L.A., Haney, L.B., **Hussaini, I.M.**, Karns, L.R. and Glass II, W.F. (1998) Expression of Smooth Muscle α -Actin in Cellular Hypertrophy: Regulation by Serum, Thrombin, PDGF and TGF- β 1 in cultured Mesangial Cells. Kidney International **54(4)**, 1175-1187.
39. Lysiak, J.J., **Hussaini, I.M.** and Gonias, S.L. (1997) α_2 -Macroglobulin Synthesis by the Human Monocytic Cell Line THP-1 is Differentiation State-Dependent. J. Cell. Biochem. **67**, 492-497.
40. Weaver, A.M., **Hussaini, I.M.**, Mazar, A., Henkin, J. and Gonias, S.L. (1997) Embryonic Fibroblasts that are Genetically Deficient in Low Density Lipoprotein Receptor-related Protein Demonstrate Increased Activity of the Urokinase Receptor System and Accelerated Migration on Vitronectin. J. Biol. Chem. **272(22)**, 14372-14379.
41. Brown, M.D., Banker, G.A., **Hussaini, I.M.**, Gonias, S.L. and VandenBerg, S.R. (1997) Low Density Lipoprotein Receptor-related Protein is Expressed Early and Polarizes in a Somatodentritic Distribution During Neuronal differentiation in Culture. Brain Research. **747**, 313-317.
42. Gamaniel, K., Wambebe, C., Amupitan, T., **Hussaini, I.M.**, Amos, S., Awodogan, A., Dunah, A.W., Ekuta, J.E., Akaja, M.O., Usman, H., and Enwerem, N. (1997) Active column fractions from *Nauclea latifolia* leaf extracts on plasmodium berghei and rabbit ileum. J. Pharm. Res. and Dev. **2(1)**, 44-47.
43. **Hussaini, I.M.**, LaMarre, J., Lysiak, J.J., Karns R.L., VandenBerg, S.R. and Gonias, S.L. (1996) Transcriptional Regulation of Low Density Lipoprotein Receptor-related Protein Expression by Interferon- γ and the Antagonistic Activities of Transforming Growth Factor- β 1 in RAW 264.7 Macrophage-like Cells. J. Leukocyte. Biol. **59(5)** 733- 739.
44. Webb D.J., **Hussaini, I.M.**, Weaver, Alissa, Atkins, T.A., Pizzo, S. V., Owens G. K. and Gonias, S.L. (1995) Activated α_2 Macroglobulin Promotes Proliferation of rat Vascular Smooth Muscle Cells by a Novel Receptor-Mediated Mechanism. Eur. J. Biochem., **234**, 714-722.
45. Dambisya, Y.M., Tat-Leang Lee and **Hussaini, I.M.** (1995) Effects of the Platelet-activating Factor Receptor Antagonist WEB 2086 on Whole Blood Coagulation and Fibrinolysis in a Thromboelastography Assay. Blood Coag. Fibrinol., **6(8)**, 733-737.
46. Lysiak, J.J., **Hussaini, I.M.**, Webb J.D., Glass II, W.F., Allietta, M. and Gonias, S.L. (1995) α_2 -Macroglobulin Functions as a Cytokine-carrier to Induce Nitric Oxide Synthesis and Cause Nitric Oxide-dependent Cytotoxicity in RAW 264.7 Macrophage Cell Line . J. Biol.

Chem., **270** (37), 21919-21927.

47. Okolo, C.O., Johnson P.B, Abdurahman, E. M., Aguye, A.I. and **Hussaini, I.M.** (1995) Analgesic Effect of *Irvingia gabonensis* Stem Bark Extract J. Ethnopharmacol., **45**, 125-129.
48. Wolf, B.B., Gibson, C.A. Kapur, V., **Hussaini, I.M.** Musser, J.M. and Gonias S.L. (1994) Streptococcal Pyrogenic Exotoxin Cleaves Monocytic Cell Urokinase Receptor and Releases an Active Fragment of the Receptor from the Cell Surface. J. Biol Chem., **269**(48), 30682-30687.
49. **Hussaini, I.M.** and Musa M. (1994) Fluoxetine Potentiates Nitrazepam-induced Behavioral Sleep in Young Chicks. Physiol. & Behav., **55**(2), 391-393.
50. Gonias, S.L., Marshall, L.B., Figler, N.L., **Hussaini, I.M.**, Moncino, M.D. and Pizzo, S.V. (1993) Electron Microscopy Studies of α_2 -Macroglobulin Subunit Association After Limited Reduction with Dithiothreitol. Arch. Biochem. Biophys. **302**, 42-48.
51. Gonias, S.L., LaMarre, J., Hall, S.W., **Hussaini, I.M.**, Srikumar, K., Wollenberg, G.K., Quesenberry, P.J. and Hayes, M.A. (1991) The α_2 -M Receptor in the Regulation of Growth Factor Activity. Biol. Chem. Hoppe-Seylor, **372**, 137-138.
52. LaMarre, J., Hayes, M.A., Wollenberg, G.K., **Hussaini, I.M.**, Hall, S.W. and Gonias, S.L. (1991) An α_2 -Macroglobulin Receptor-dependent Mechanism for the Plasma Clearance of Transforming Growth- β_1 in Mice. J. Clin. Invest., **87**, 39-44.
53. **Hussaini, I.M.**, Adamu, I. and Gamaniel, K.S. (1991) Platelet-activating Factor Induces a Prostaglandin-mediated Contraction of the Non-pregnant Rat Uterus. West African J. Pharmacol. and Drug Res., **9/10**, 39-42.
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