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Sr. Scientist / Visiting Associate Professor
Head, Hypertension Unit
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EDUCATION

MD

1991. University of Chittagong. Bangladesh

PhD (Medical Biochemistry)

1998 National University of Malaysia

Examiner: Prof. A. Hagerthy, Manchester Royal Infirmary, UK.

Dissertation Title: Role of free radicals, uric acid and antioxidant vitamins in essential hypertension.

SPECIAL TRAINING

1. Multiplex PCR: Tools for Biotechnology. 1998. University Putra Malaysia. **Malaysia**
2. Molecular Methods to Diagnose Inherited Diseases. 1999. Universita degli Studi di Napoli Federico II. Napoli, **Italy**.
3. Quantitative RT-PCR. 2000. MD Anderson Cancer Center. Houston, Texas. **USA**.
4. Development of transgenic animal, University of Michigan, Ann Arbor. 2007-2008

APPOINTMENTS

December 1991 to December 1992	Residency Chittagong Medical College hospital,
Jan 1993 to June 1994	Lecturer, Department of Physiology, Faculty of Medicine University of Science and Technology, Chittagong.
July 1994 to June 1995	Research Associate, National University of Malaysia Department of Biochemistry, Faculty of Medicine
July 1995 to June 1997	Assistant Lecturer, National University of Malaysia Department of Biochemistry, Faculty of Medicine
July 1997 to Jan 2000	Assistant Professor, Faculty of Medicine International Islamic University of Malaysia.
Feb 2000 to July 2003	Research Associate, Center for Cardiovascular Diseases Texas Southern University, Houston
August 2003 to Dec 2007	Visiting Assistant Professor / Scientist, Center for Cardiovascular Diseases. Texas Southern University, Houston. Texas

Jan 2008 to
todate

Visiting Associate Professor / Sr. Scientist and Head Hypertension
Unit, Center for Cardiovascular Diseases. Texas Southern
University, Houston. Texas

AWARDS AND HONORS

Travel Award

American Society of Hypertension to present paper at 12th Annual Scientific meeting in San Francisco, USA. 1997

Travel Award:

American Society of Hypertension to present paper at 13th Annual Scientific meeting in New York, USA. 1998

Travel Award:

International Society of Hypertension to present paper at 17th Scientific Meeting in Amsterdam, Netherlands. 1998

Biography included in WHO's WHO in the world, 16th edition 1999

Bursary Award

International Federation of Clinical Chemistry and Laboratory Medicine to attend 17th International congress in Florence, Italy. 1999.

Travel Award:

International Society of Hypertension to present paper at 18th Scientific Meeting in Chicago, USA. 2000.

Young Investigator Award:

American Physiological Society, Renal Section. Experimental Biology 2001, Orlando, Florida.

Caroline Tun Sudan Professional Opportunity Award.

American Physiological Society. FASEB 2002, New Orleans.

New Investigator Award.

High Blood Pressure Council. American Heart Association. Washington, DC. 2003.

FASEB MARC Fellowship

FASEB Summer research Conference. July 29- August 3, Snowmass, Colorado.

Young Investigator Travel Award

International Society of Hypertension. October 15-19, 2006. Fukuoka, Japan.

Young Investigator Award. International Symposium: Kidney and Hypertension. October 20-21, 2006. Sendai, Japan.

Research Fellow Cardiology Division, Department of Internal Medicine. University of Michigan. Ann Arbor, MI. Feb 2007 to Dec 2008

FASEB MARC Fellowship (Faculty / Student). Experimental Biology. April 28-May 02, 2007. Washington DC.

FASEB MARC Fellowship (Faculty / Student). Experimental Biology. April 5-April 9, 2008. San Diego, CA..

FASEB MARC Fellowship (Faculty / Student). Experimental Biology. April 18-April 22, 2009. New Orleans, LA.

GRANT SUPPORT

Present

Active

1. 2R25 HL003674-08.

Title: Texas Southern University Research Scientist Award (P.I: Dr. Adebayo Oyekan)

Position: Co-Investigator.

Pending

1. 1R01 ES014910-01

Title: Role of PPAR γ in acrolein-induced vascular toxicity

Position: Principal Investigator

2. 1R01 DK078603-01

Title: Interaction of PPAR γ , NAD(P)H oxidase and nitric oxide in glycerol-induced acute renal failure

Position: Principal Investigator

3. 1R21 AG035023-01

Title: Transcriptional regulation of vascular aging and the role of Peroxisome proliferator activated receptors (PPARs)

Position: Principal Investigator

Under Preparation

1. NHLBI RO1

Title: PPAR-dependent regulation of GPCR signaling in the regulation of vascular tone

Position: Principal Investigator

Completed

1. **Title:** Effect of PPAR γ induction in glycerol-induced acute renal failure (2003-2006)

Position: Principal Investigator

2. **Title:** Treatment of Essential Hypertension in spontaneously hypertensive rats using natural antioxidant α -tocopherol and γ -tocotrienol from palm oil (1998-2000).

Position: Principal Investigator

3.. **Title:** To conduct community based intervention in reducing risk factors for cardiovascular diseases. (1998-2000)

Position: Co- Investigator

4. **Title:** Relation of Melatonin, Total antioxidant status, erythrocyte superoxide dismutase and lipid peroxides in aging (1999)

Position: Principal Investigator

5 **Title:** Awareness and Prevalence of essential Hypertension among rural and urban population of Kuantan. (1998)

. **Position:** Principal Investigator.

6. **Title:** Uric acid and Hypertension (1995-1997)
Position: Principal Investigator

PUBLICATIONS

Book Chapter

1. Zivar Yousefipour and **Mohammad A. Newaz** (2009) Fatty Acid Metabolism: Role of Peroxisome Proliferator Activated Receptors (PPARs). In Fatty Acids in Health Promotion and Disease Causation. Editor Ronald Ross Watson. Publisher American Oil Chemists Society

Peer Reviewed Publication

1. **Newaz, M. A.**, Adeeb, N. N. N. & Muslim, N. Comparison of measurement of intracellular calcium using pyrex and porcelain containers. Malaysian Journal of Medical Laboratory Science 1995; 12(1): 21-24.
2. **Mohammad Ali Newaz** & Nik Nawal Nik Adeeb. Antioxidant : A therapy for essential hypertension. Journal Perubatan UKM 1996; 18: 15-27.
3. **M. A. Newaz**, N. N. N. Adeeb, N. Muslim, T. A. Razak & N. N. Htut. Uric acid, xanthine oxidase and other risk factors of hypertension in normotensive subjects. Clin. And Exper. Hypertension 1996; 18(8): 1035-1050.
4. **M. A. Newaz**, N. N. N. Adeeb, N. Muslim, T. A. Razak & N. N. Htut. Measurement of cellular and plasma electrolytes in hypertensive patients. Malaysian Journal of Biochemistry and Molecular Biology 1997; 1: 40-43.
5. **M. A. Newaz**, N. N. N. Adeeb, N. Muslim, T. A. Razak & N. N. Htut. Lipid peroxidation, uric acid and xanthine oxidase activity in essential hypertension: mysterious role of uric acid. Malaysian Journal of Medical Science 1997; 4(2): 52-58.
6. **M. A. Newaz**, N. Muslim & Adeeb N.N.N. Preliminary results of lipid peroxides and superoxide dismutase in hypertensives: Indication of free radical activity. Malaysian J Biochemistry and Molecular Biology 1997; 2: 5-8.
7. **M. A. Newaz**, N. N. N. Adeeb. Detection of xanthine oxidase in human plasma. Medical Journal of Malaysia 1998; 53(1): 70-75.
8. **Newaz M A**, Adeeb N N N. Effect of α -Tocopherol on lipid peroxidation and total antioxidant status in spontaneously hypertensive rats (SHR). Am J Hypertension 1998;11(12): 1480-1485.
9. **Newaz M A**, Adeeb NNA. α -Tocopherol increased nitric oxide synthase activity in blood vessels of spontaneously hypertensive rats (SHR). Am J Hypertension 1999; 12: 839-844.
10. **Newaz M A**, Adeeb N N N. 1999. Effect of γ -Tocotrienol on Blood pressure, lipid peroxidation and total antioxidant status in spontaneously hypertensive rats (SHR). Clinical and experimental Hypertension, USA 1999 vol. 21(8):1297-1313.
11. **Newaz MA**, Oyekan AO. Vascular Responses to Endotheli-1, Angiotensin-II and U46619 in glycerol-induced acute renal failure. J Cardiovasc Pharmacol 2001; 38:569-577.
12. **Newaz MA**, Oyekan AO. Contribution of renal oxygenases to glycerol-induced acute renal failure in the rat. J Cardiovasc Pharmacol 2002; 39: 834-841.

13. **Newaz MA**, Yousefipour Z, Oyekan AO. Effects of pergolide on blood pressure and tissue injury in DOCA-salt hypertension. *Blood Pressure* 2002; 11:110-115.
14. **Newaz MA**, Yousefipour Z, Nawal NNA. Nitric oxide synthase activity in blood vessels of spontaneously hypertensive rats: Antioxidant protection by γ -tocotrienol. *J Physiol Pharmacol* 2003; 54(3); 319-327.
15. **Newaz MA**, Yousefipour Z, Oyekan AO Chronic Vesopeptidase Inhibition Reduce Tissue Hypertrophy and Injury in DOCA-salt hypertension. *Clin Exp Hypertens* 2003; 25; 335-47.
16. Sofola O, Yakubu A, Igbo I, **Newaz MA**, Oyekan AO. High salt diet modulates cAMP- and nitric oxide-mediated relaxation responses to isoproterenol in the rat aorta. *Eur J Pharmacol* 2003; 474: 241-247.
17. AA Ajayi, **M Newaz**, H Hercule, M Saleh, CO Bode, AO Oyekan. Endothelin-like action of Pausinystalia Yohombie aqueous extract on vascular and renal regional hemodynamics in Sprague dawley rats. *Methods Find Exp Clin Pharmacol* 2003; 25.
18. **Newaz MA**, Ranganna K, Oyekan AO. Relationship between PPAR α activation and NO on proximal tubular Na⁺ transport in the rat. *BMC Pharmacol*. 2004 Feb 6;4(1):1. <http://www.biomedcentral.com/1471-2210/4/1>
19. AO Oyekan, **MA Newaz**, A Blanton and P Fidelis. Transcription factors and their contribution to DOCA/salt hypertension. Proceeding: 23rd European conference on Microcirculation. Lisbon, Portugal, September 8-11. 2004. 121-126.
20. **Mohammad Newaz**, Ahmad Blanton, Paul Fidelis, and Adebayo Oyekan NAD(P)H oxidase/ nitric oxide interactions in peroxisome proliferator activated receptor (PPAR) α -mediated cardiovascular effects. *Mutation Research* 2005;579:163-171
21. **Newaz M A**. Modulation of Nitric Oxide Synthase (NOS) activity in brain, liver and blood vessels in Spontaneously Hypertensive Rats (SHR) by ascorbic acid: Protection from free radical injury. *Clin Exp Hypertens* 2005; 27(6): 497-508
22. Yousefipour Z, Ranganna K, **Newaz MA**, Milton SG. Mechanism of Acrolein-Induced Vascular Toxicity. *J Physiol Pharmacol* 2005;56(3):337-53).
23. David A Long , **Mohammad A. Newaz**, Wei Mu , Sharma S Prabhakar , Karen L Price, Luan D Truong, Lili Feng, Adebayo O Oyekan, Richard J Johnson. Loss of Nitric Oxide and Endothelial Derived Hyperpolarizing Factor Mediated Responses in Aging. *Kidney Int* 2005; 68(5): 2154-63.
24. **Newaz MA**, Yousefipour Z, Oyekan AO. Role of PPAR γ on the pathogenesis and vascular changes in glycerol-induced acute renal failure. *J Pharmacological Research* 2006; 54(3): 234-240.
25. **Mohammad A. Newaz**, Zivar Yousefipour, Adebayo Oyekan. Oxidative-stress associated vascular aging is not NAD(P)H oxidase but xanthine oxidase dependent. *J Cardiovasc Pharmacol* 2006; 48(3): 88-94.
26. Yousefipour Z, Hercule H, Luan D Truong, Oyekan AO, **Newaz MA**. Ciglitazone Improves Renal Microvascular Reactivity by Inducing PPAR γ Gene. *J Pharmacol Exp Therap* 2007; 322(2):461-468
27. Yousefipour Z, Hercule H, Oyekan AO **Newaz MA** Antioxidant U74389G Improves Glycerol-induced Acute Renal Failure without Affecting PPAR γ Gene. *Ren Fail* 2007;29(7):903-910.
28. Zivar Yousefipour, Adebayo Oyekan, and **Mohammad Newaz** Role of G-protein coupled receptor kinase-2 (GRK2) in PPAR γ -mediated modulation of blood pressure and renal vascular reactivity in SHR. *Am J Nephrology* 2009; 30;201-211.

29. **Mohammad Newaz** and Adebayo Oyekan. Natriuretic and renoprotective effect of chronic oral neutral endo peptidase (NEP) inhibition in acute renal failure. *J Cardiovasc Pharmacol* 2009 (Under Review)

ABSTRACTS

1. Comparison of measurement of intracellular calcium using pyrex and porcelain containers. 1995. Proceedings: Symposium Bioperubatan Pertama. 20-21 March, Kuala Lumpur.
2. Measurement of xanthine oxidase: A free radical producing enzyme. 1995. Abstract Book. 29th Malaysia-Singapore congress of Medicine. 10-13 August, Kuala Lumpur.
3. A preliminary study of factors associated with blood pressure in normal subjects. 1995. Proceedings: Kolokium Ke Perubatan-4. 18-19 August, Kuala Lumpur.
4. Association of uric acid and xanthine oxidase with other risk factors of hypertension in normal subjects. 1995. Proceedings: 20th Annual Conference of The Malaysian Society for Biochemistry and Molecular Biology. 19-20 September. Seremban, Malaysia.
5. Relationship between plasma xanthine oxidase activity (A free radical producing enzyme) and age. 1995. Proceedings: International Symposium on Biochemical and Molecular Biological Approaches on Ageing. September 20-21. Bandung, Indonesia.
6. Hyperuricaemia in hypertension: An effect or a remedy? 1996. Proceedings: 30th Singapore Malaysia congress of Medicine. 1-4 August, Singapore.
7. Lipid peroxides in the hypertensives: Indication of free radical activity. 1996. 21st Annual Conference of The Malaysian Society for Biochemistry and Molecular Biology. Kuala Lumpur.
8. Measurement of cellular and plasma electrolytes in hypertensive patients. 1996. *J Hypertension* 14 (suppl 1): S270.
9. Determination of uric acid and xanthine oxidase activity in hypertensive patients. 1996. *J Hypertension* 14 (suppl 1): S357
10. Effect of α -Tocopherol on lipid peroxidation and total antioxidant status in spontaneously hypertensive rats (SHR). 1997. *Am J Hypertension* 10(4); 123A.
11. α -Tocopherol increased nitric oxide synthase activity in blood vessels of spontaneously hypertensive rats (SHR). 1997. *Am J Hypertension* 10(4); 162A.
12. Effect of vitamin E on free radical activities in spontaneously hypertensive rats. 1997. Proceedings: National Meeting of the Association of Clinical Biochemists. May 12-16, Birmingham, UK.
13. γ -Tocotrienol increased nitric oxide synthase activity in blood vessels of spontaneously hypertensive rats (SHR). 1998. *Am J Hypertension* 11(4); 84A.
14. Effect of γ -Tocotrienol on lipid peroxidation and total antioxidant status in spontaneously hypertensive rats (SHR). 1998. *J Hypertension* 16(suppl. 2); S257.
15. Comparison of Endothelial, Brain and Liver Nitric Oxide synthase (NOS) activity in spontaneously hypertensive rats (SHR). 1998. Proceedings: 8th Federation of Asian Oceanian Biochemist and Molecular Biologist (FAOBMB) Congress. Kuala Lumpur, Malaysia. Page 44.
16. Vitamin E reduces lipid peroxidation and increases Nitric oxide synthase activity in Liver, Brain and Kidney of spontaneously hypertensive rats (SHR). 1998. Proceedings: 8th Federation of Asian Oceanian Biochemist and Molecular Biologist (FAOBMB) Congress. Kuala Lumpur, Malaysia. Page 97.
17. Brain and liver Nitric Oxide Synthase (NOS) activity in SHR and the effect of treatment with different doses of antioxidant α -Tocopherol. 2000. *J Hypertension* 18 (suppl 4). S210.
18. Interaction of Endothelin-1, Angiotensin II and U46619 in Glycerol-induced acute renal failure. *FASEB Journal* 2001; 15(5): A1127.

19. Contribution of renal oxygenases to Glycerol-induced acute renal failure in the rat. *FASEB Journal* 2001; 15(5): A233
20. Effect of PPAR γ induction on Glycerol-induced acute renal failure. *FASEB Journal* 2002; 16(5): A1170.
21. Effect of pergolide on blood pressure and tissue injury in DOCA-salt hypertension. *FASEB Journal* 2002; 16(5): A92.
22. Pausinystalia yohimbe extract has endothelin/NO actions. *FASEB Journal* 2003; 17(5)
23. The Role of Nitric Oxide in the Effects of Peroxisome Proliferator Activated Receptors alpha (PPAR α) in AngiotensinII-Induced Hemodynamics in the Rat. *FASEB Journal* 2003; 17(5)
24. Interactions of Nitric Oxide and PPAR α on Proximal Tubular Na⁺ Transport in the Rat. *FASEB Journal* 2003; 17(5)
25. Role of Nitric Oxide in Acrolein-Induced Vascular Responses. *FASEB Journal* 2003; 17(5).
26. Peroxisome proliferator activated receptor-alpha/nitric oxide interactions on renal function and vascular reactivity. *FASEB Journal* 2004; 18(5)
27. Vascular and Renal function in mice lacking the Peroxisome Proliferator activated receptor α . *FASEB Journal*; 2004(5)
28. PPAR- γ induction improves vascular reactivity and renal function in Glycerol-Induced Acute Renal Failure. *FASEB Journal*; 2004(5).
29. Antioxidant U74389G improves glycerol-induced acute renal failure without affecting PPAR- γ expression / activity in the rat. *FASEB Journal* 2004; 18(5).
30. Reduced PPAR α Expression Contributes to DOCA-salt Hypertension. 58th Annual conference and scientific sessions of the council for High Blood Pressure research in association with the council on kidney in cardiovascular diseases. 2004. Chicago. IL
31. Reduced PPAR γ gene expression in glycerol-induced acute renal failure. *FASEB Journal* 2005; 19(5)
32. Antioxidant U74389G reduce free radical generation via increased PPAR γ gene expression in glycerol-induced acute renal failure without affecting NAD(P)H oxidase. *FASEB Journal* 2005; 19(5).
33. Oxidative stress-associated vascular aging is not NAD(P)H oxidase but xanthine oxidase dependent. Meeting abstract book. 59th Annual conference and scientific sessions of the council for High Blood Pressure research in association with the council on kidney in cardiovascular diseases. September 21-24, 2005. Washington DC. USA.
34. Role of gp91phox in glycerol-induced acute renal failure. *FASEB Journal* 2006; 20(5).
35. Effect of siRNA to PPAR α in the rat kidney. *FASEB Journal* 2006; 20(5).
36. Effect of Clofibrate in the regulation of blood pressure in spontaneously hypertensive rats. *FASEB Journal* 2007; 21(5)
37. Contribution of Renal Epithelial Na Channel (ENaC) in Clofibrate-mediated Reduction in Blood Pressure in Female SHR. *FASEB Journal* 2007; 21(5).
38. The modulating effect of PPAR α siRNA on blood pressure and renal injury following nitric oxide withdrawal and high salt diet in the rat. Annual Meeting of the International Society of Hypertension 2008. Berlin, Germany
39. G-protein coupled receptor kinase-2 (GRK-2)-mediated regulation of blood pressure in SHR and the role of PPAR γ . 62nd Meeting of the High Blood Pressure Council of AHA. 2008 Atlanta, GA
40. Effects of PPAR α siRNA on blood pressure and renal injury in the rat following nitric oxide withdrawal and high salt diet. 62nd Meeting of the High Blood Pressure Council of AHA. 2008 Atlanta, GA

CONFERENCE ATTENDED

1. Symposium Bioperubatan Pertama. 20-21 March, 1995. Kuala Lumpur, **Malaysia**
2. 29th Malaysia-Singapore congress of Medicine. 10-13 August, 1995. Kuala Lumpur, **Malaysia**.
3. Kolokium Ke Perubatan-4. 18-19 August, 1995. Kuala Lumpur. **Malaysia**
4. 20th Annual Conference of The Malaysian Society for Biochemistry and Molecular Biology. 19-20 September. 1995. Seremban, **Malaysia**.
5. 2nd National conference on Medical Sciences. 9-10 June, 1996. **Malaysia**.
6. 30th Singapore Malaysia congress of Medicine. 1-4 August, 1996. **Singapore**.
7. 12th Annual Scientific meeting of the American Society of Hypertension. 27-31 May, 1997. San Francisco, **USA**.
8. 13th Annual Scientific meeting of the American Society of Hypertension. 13-16 May, 1998. New York, **USA**.
9. 17th Scientific meeting of the International Society of Hypertension. 7-11 June 1998. Amsterdam, **Netherlands**.
10. 8th FAOBMB Congress. 22-26 November 1998. Kuala Lumpur, **Malaysia**.
11. IFCC WorldLab99. 17th International Congress of Clinical Chemistry and Laboratory Medicine. 6-11 June. 1999. Florence, **Italy**.
12. 18th Scientific Meeting of the International Society of Hypertension. August 20-24, 2000. Chicago. **USA**
13. Experimental Biology 2001. Annual meeting of the American Societies of Experimental Biologists (FASEB). April 31- May 4, Orlando. Florida. **USA**
14. Experimental Biology 2002. Annual meeting of the American Societies of Experimental Biologists (FASEB). April 20- 24, New Orleans, Louisiana. **USA**.
15. 4th Hypertension Summer School. American Heart Association. July 20-24, 2002. Williamsburg, Virginia. **USA**
16. 56th Annual conference and scientific sessions of the council for High Blood Pressure research in association with the council on kidney in cardiovascular diseases. 2002. September 25-28. Orlando, Florida. **USA**
17. Experimental Biology 2003. Annual meeting of the American Societies of Experimental Biologists (FASEB). April 11- 15, San Diego, CA **USA**
18. 57th Annual conference and scientific sessions of the council for High Blood Pressure research in association with the council on kidney in cardiovascular diseases. 2003. September 23-26. Washington, DC. **USA**
19. Experimental Biology 2004. Annual meeting of the American Societies of Experimental Biologists (FASEB). April 17- 22, Washington, DC.
20. 58th Annual conference and scientific sessions of the council for High Blood Pressure research in association with the council on kidney in cardiovascular diseases. 2004. October 9-12. 2004. Chicago. **USA**
21. Experimental Biology 2005. Annual meeting of the Federation American Societies of Experimental Biologists (FASEB). April 02-06, San Diego, CA.
22. 59th Annual conference and scientific sessions of the council for High Blood Pressure research in association with the council on kidney in cardiovascular diseases. 2005. September 21-24. 2005. Washington, DC. **USA**
23. Experimental Biology 2006. Annual meeting of the Federation American Societies of Experimental Biologists (FASEB). April 01-05, San Francisco, CA.
24. ECM 2006. 24th European Conference on Microcirculation. August 30th to September 3rd, 2006. Amsterdam, The Netherlands.
25. 21st Annual Scientific Meeting of the International Society of Hypertension. Fukuoka, Japan. October 15-19, 2006.

26. International Symposium: Kidney and Hypertension. Sendai, Japan. October 20-21, 2006.
27. Experimental Biology 2007. Annual meeting of the Federation American Societies of Experimental Biologists (FASEB). April 28-May 02, Washington DC
28. Experimental Biology 2008. Annual meeting of the Federation American Societies of Experimental Biologists (FASEB). April 9-April 16, San Diego, CA
29. 19th Scientific Meeting of the International Society of Hypertension. 2008. June 14th to June 19th. Berlin, Germany.
30. 62nd Meeting of the High Blood Pressure Council of the American Heart Association. Sept 16-20. Atlanta, GA

REVIEWER

1. Journal Physiology
2. Journal Biochemical Pharmacology
3. Journal Life science
4. Journal Pharmacology and Experimental Therapeutics
5. American Journal Physiology Heart Lung and Circulatory physiology
6. Pharmacological Research.

MEMBERSHIP

1. American Physiological Society
2. American Heart Association