

Co-PIs: Gretchen L. Birbeck and Michael J. Potchen; USA and Zambia

Foreign Investigators: Sam D. Kampondeni, Macpherson Mallewa, Cowles Chilingulo; Malawi

Other US Investigators: Terrie E. Taylor, Khalid Ibrahim, Joseph Bonner

R21NS069228

The Malawi-MSU-MRI Project: An Epidemiologic Study of CNS Abnormalities

Publications to date:

MJ Potchen, SD Kampondeni, M Mallewa, TE Taylor, GL Birbeck. Brain Imaging in Normal Kids (BRINK): A Community-Based MRI Study in Malawian Children. Submitted to *TMIH* 17 July 2012.

MJ Potchen, SD Kampondeni, K Ibrahim, J Bonner, KB Seydel, TE Taylor, GL Birbeck. NeuroInterp: A Method for Facilitating Neuroimaging Research on Cerebral Malaria. *Neurology* 1 Accepted 25 September 2012.

Potchen, SD Kampondeni, KB Seydel, GL Birbeck, CA Hammond, WG Bradley, JK DeMarco, SJ Glover, JO Ugorji, M Latourette, JE Siebert, ME Molyneux, TE Taylor. Acute Brain MRI Findings in 120 Malawian Children with Cerebral Malaria: New Insights into an Ancient Disease. *AJNR* 2012; 33:1740-1746.

MJ Potchen, SD Kampondeni, GL Birbeck, CA Hammond, A Gonani, KS Phiri, KB Seydel, TE Taylor. Magnetic Resonance Imaging in Malawi: Contributions to Clinical Care, Medical Education and Biomedical Research. *Malawi Medical Journal* e-pub 7 June 2011.

S Kampondeni, GL Birbeck, N Beare, KB Seydel, S Glover, TE Taylor, MJ Potchen. MRI Findings in Brain Injured Survivors of Pediatric Cerebral Malaria. Accepted to the 2012 Annual Meeting for the Radiologic Society of North America.

SD Kampondeni, KB Seydel, MJ Potchen, GL Birbeck, TE Taylor. Brain Imaging surrogate of intracranial pressure (SamKam ratio) correlates with outcome in pediatric cerebral malaria. American Society of Tropical Medicine and Hygiene 2013 Annual Meeting, Atlanta 11-15 November, Abstract 1427.

MJ Potchen, SD Kampondeni, M Mallewa, TE Taylor, GL Birbeck. Brain imaging in normal kids (BRINK): A Community-Based MRI Study. University of Malawi College of Medicine Research Dissemination Day, Blantyre, Malawi. 27 October 2012. Abstract book P043.

SD Kampondeni, C Chilingulo, KB Seydel, MJ Potchen, WG Bradley, MT Latourette, GL Birbeck, JE Siebert, TE Taylor. A Quantitative Measure of Brain Swelling on MRI Scans Predicts Outcome in Pediatric Cerebral Malaria. University of Malawi College of Medicine Research Dissemination Day, Blantyre, Malawi. 27 October 2012. Abstract book A03.

MJ Potchen, GL Birbeck, TE Taylor, N Beare, S Glover, K Seydel, SD Kampondeni. MRI Findings in Brain Injured Survivors of Pediatric Cerebral Malaria. University of Malawi College of Medicine Research Dissemination Conference, Blantyre, Malawi, 27 October 2012, Abstract book A91.

PI name/ PI country: Leslie L. Davidson-USA,

Major foreign collaborator name/ Foreign Collaborating Country:

Shuaib Kauchali- PI, UKZN, South Africa

South African co-investigators – Meera Chhagan, Jane Kvalsvig, Myra Taylor

US co-investigators – Stephen Arpadi, Claude Mellins, Zena Stein, Ida Susser

Presenter: **Dr. Leslie L. Davidson**

Grant Title: The ASENZE Study: Health & Psychosocial Need: Children with Neurodevelopmental Disorders in a Time of HIV (R01 DA023697-04)

The ASENZE Study: Health & Psychosocial Need: Children with Neurodevelopmental Disability in a Time of HIV

Publications and Presentations as of October 17, 2012

PUBLICATIONS in Peer Reviewed Journals:

Kauchali S, Davidson LL. Commentary: The epidemiology of neurodevelopmental disorders in Sub-Saharan Africa: moving forward to understand the health and psychosocial needs of children, families and communities. *Int J Epid* 2006; 35:689-90.

Chhagan MK, Kauchali S, Arpadi SM, Craib MH, Bah F, Stein ZA, Davidson LL. Failure to test children of HIV-infected mothers in South Africa: Implications for HIV testing strategies for preschool children. *Tropical Medicine and International Health* 2001; 16:12, p 1490 – 1491

SUBMITTED FOR PUBLICATION:

Taylor M, Chhagan M, Kauchali S, Kvalsvig JD, Craib M, Mellins C, Davidson LL. The AUDIT C: A better screen than the AUDIT to identify primary child caregivers at risk of alcohol abuse in the Asenze Study, KwaZulu-Natal, South Africa? Submitted to *Alcohol and Alcoholism*

Chhagan MK, Mellins CA, Kauchali S, Craib MH, Taylor M, Kvalsvig JD, Davidson LL. Mental health disorders among caregivers of preschool children in the Asenze Study in KwaZulu-Natal, South Africa. Submitted to *Maternal Child Health*.

Davidson LL, Kauchali S, Chhagan MK, Bah F, Stein ZA. The Ten Questions in Context: Reflections on its History, Usefulness and Challenges for the Future. Submitted to *International Journal of Mental Health*.

Kauchali S, Chhagan MK, Bah F, Craib MH, Arpadi SM, Kvalsvig JD, Taylor M, Mellins CA, Stein ZA, Davidson LL. The Ten Questions Screen for Childhood Disability in the Asenze Study in KwaZulu-Natal, South Africa: Family, Demographic and Caregiver Characteristics Which Predict a False Positive Screen. Submitted to *International Journal of Mental Health*

Griffiths-Dingani K, Mnguni S, Susser I, Davidson LL, Kauchali S, Chhagan MK. Flexible Women and Precarious Care in Peri-Urban KwaZulu-Natal. Submitted to *Medical Anthropology*.

Uwemedimo OT, Arpadi SM, Chhagan MK, Kauchali S, Craib MH, Bah F, Davidson LL. Compliance with Referrals for Non-acute Child Health Conditions: Evidence from the Longitudinal ASENZE Study in KwaZulu Natal, South Africa. Submitted to BMC Health Services Research

PUBLISHED ABSTRACTS

Davidson LL, Kauchali S, Kvalsvig JD, Mellins CA, Chhagan MK, Arpadi SM, Taylor M. The ASENZE study: investigating the impact of HIV and psychosocial challenges on pre- school aged children. Abstract in Journal of Intellectual Disability Research 2008;52:159.

Kauchali S, Arpadi SM, Chhagan MK, Kvalsvig JD, Davidson LL, Adhikari M and Stein ZA. Disability in indigenous South African Children in a time of HIV. Abstract in Journal of Intellectual Disability Research 2008; 52:160

Kvalsvig JD, Kauchali S, Davidson LL. Developmental disability in a time of HIV and AIDS: measures of children's cognitive development. Abstract in Journal of Intellectual Disability Research 2008; 52:159

Khan NZ, Davidson LL, Durkin M, Rahman A, Scherzer, AL. Epidemiology of autistic spectrum disorders in low income countries: Need for cross-culturally valid screening and diagnostic tools. Journal of Intellectual Disability Research 2008; 52:767.

Davidson LL, Kauchali S, Chhagan MK, Kvalsvig JD, Craib MH, Bah F, Arpadi SM, Taylor M, Mellins CA, Stein ZA. Screening for childhood neurodisability in a cohort of preschool children in Kwazulu-Natal, South Africa. J Intellectual Disability Research 2012; 56:P. 768.

Davidson LL, Kauchali S, Nankabirwa V, Craib M, Arpadi SM, Chhagan M. Epilepsy and associated neurodevelopmental delays in a cohort of preschool children in KwaZulu-Natal, South Africa. J Intellectual Disability Research 2012; 56:P. 768.

Davidson LL, Kauchali S, Chhagan MK, Bah F, Uwemedimo OT, Craib MH, McKeague I. The use of a wealth index within an impoverished community: A cohort study in KwaZulu-Natal, South Africa. J Epidem Com Health. 2012; 66 Supp 1:A59.

PRESENTATIONS/CONFERENCES:

Our co-investigator Dr. Ida Susser and our study ethnographer Kate Griffiths-Dingani, will attend a panel on "Gendering Southern African Precarity and Social Movement Responses" at the *African Studies Association Annual Meeting* in Philadelphia, PA, November 29 – December 1 2012.

The following poster will be presented at the Advancing Excellence in Gender, Sex and Health Research Conference - Montreal, CA, October 2012:

Mguni S and Griffiths-Dingani K. Shebeens, Queens and Household Precarity: Gender and Alcohol in KwaZulu-Natal.

The following poster was presented at the Society for Social Medicine Conference- London, UK September 2012:

Davidson LL, Kauchali S, Chhagan M, Bah F, Uwemedimo OT, Craib M, McKeague I. The use of a wealth index within impoverished communities: a cohort study in KwaZulu-Natal, South Africa.

The following abstract was presented as an oral presentation at the 4th International Workshop on HIV Pediatrics - Washington, DC July 2012:

Arpadi S, Kauchali S, Chhagan M, Craib M, Bah F, Bozeman M, Davidson LL. Screening for Development Disabilities in HIV-Infected Children in South Africa: Results from the ASENZE Study.

The following abstract was presented as an oral presentation at the International AIDS Society Conference - Washington, DC July 2012

Griffiths-Dingani K, Mnguni S, Susser I, Davidson LL, Kauchali S, Chhagan MK, Craib MH. Household Precarious Households, HIV and Caregiver Mental Health.

The following poster was presented at the American Epidemiological Society - Berkeley, March 2012:

Davidson LL, Kauchali S, Chhagan MK, Arpadi SM, Bah F, Craib MH, Uwedemimo OT, Mellins CA, Kvalsvig JD, Taylor M, Stein ZA. Screening and Assessment of developmental disability in children in developing countries: Challenges in using the International Classification of Function, Disability and Health.

The following posters were presented at the International AIDS Society Conference- Vienna July 2010, and were published in the Journal of International AIDS Society:

Chhagan MK, Schlemmer K, Kauchali S, Davidson LL, Arpadi SM, Craib MH, Taylor M, Stein ZA. Hearing screening in pre-school in the setting of high HIV prevalence.

Kauchali S, Davidson LL, Chhagan MK, Kvalsvig JD, Arpadi SM, Mellins CA, Susser I, Taylor M, Craib MH, Bah F, Stein ZA. The ASENZE Study of Health and Psychosocial Need in Children in KwaZulu-Natal: Study Rationale and Preliminary Findings in the Initial Cohort of Children.

LL Davidson, Susser I, Kauchali S, Taylor M, Mkhize S, Mnguni S, Griffiths K, Mellins CA, Chhagan MK. Triangulating ethnography and epidemiology findings iteratively in the ASENZE Study of Health and Psychosocial Need in Children: Understanding Caregiving for Children in a Community Based by HIV.

Taylor M, Kauchali S, Davidson LL, Chhagan MK, Kvalsvig JD, Arpadi SM, Mellins CA, Susser I, Craib M, Bah F, Stein ZA. Use of Alcohol and Other Drugs in Caregivers of Preschool Children in Peri-Urban KwaZulu-natal, South Africa, and Area of Epidemic HIV Infection

Griffiths K, Mkhize S, Mnguni S, Susser I, Kauchali S, Davidson LL. Transnational Mentoring in Ethnography for the ASENZE Study: Building Capacity from the USA to South Africa

The following talk was given at the International Society for the Study of Behavioural Development, July 2010 in Zambia:

JD Kvalsvig. Disabilities in the Valley.

The following posters and talks will be presented at the International Pediatric Association Congress of Pediatrics (IPA) - Johannesburg August 2010:

Uwedemino OT, Chhagan MK, Kauchali S, Craib MH, Arpadi SM, Bah F, Davidson LL. Pediatric Assessment of Childhood Burden of Developmental Disability Pre-School Entry in a Peri-urban District of KwaZulu-Natal, South Africa (oral presentation).

Davidson LL, Kauchali S, Chhagan MK, Arpadi SM, Craib M, Uwedemino OT. Seizures Prevalence in a Cohort of Children in KwaZulu-Natal, an Area of Epidemic HIV: Correlates with Perinatal Problems and Development (Oral presentation).

Kauchali S, Davidson LL, Chhagan MK, Kvalsvig JD, Arpadi SM, Mellins CA, Susser I, Davidson LL, Taylor M, Craib MH, Bah F, Stein ZA. Caregiving and Parental Involvement: Preschool Children in KwaZulu-Natal, in the Midst of the HIV Epidemic (Poster).

Chhagan MK, Schlemmer K, Kauchali S, Davidson LL, Arpadi SM, Craib MH, Taylor M, Stein ZA. Hearing screening in pre-school in the setting of high HIV prevalence in South Africa (Poster).

The following poster was presented at the APHA – 2009:

Chhagan MK, Kauchali S, Bosman M, Craib M, Arpadi SM, Davidson LL, Kvalsvig JD, Stein ZA, Adhikari M. Failure to Test: Implications of HIV/AIDS in Preschool Children - Emphasizing the needs of children in strategies to improve HIV testing.

The following talks and posters were presented at the South African AIDS Conference, Durban, SA – 2009:

Chhagan MK, Kauchali S, Bosman M, Arpadi SM, Davidson LL, Kvalsvig JD, Stein ZA, Adhikari M. Emphasizing the needs of children in strategies to improve HIV testing (oral presentation).

Kauchali S, Davidson LL, Kvalsvig JD, Chhagan MK, Taylor M, Mellins CA, Bosman M, Arpadi SM. Developing a large scale longitudinal epidemiologic study in a semi-rural area of KwaZulu-Natal to address the health and psychosocial needs of children in a time of HIV-The ASENZE Study (poster).

Kauchali S, Davidson LL, Kvalsvig JD, Chhagan MK, Taylor M, Mellins CA, Bosman M, Susser I, Stein ZA, Arpadi SM. Caregiving and guardianship - Who can consent for the child in a time of HIV: The ASENZE Study approach (poster).

The following poster was presented at the APHA – 2008:

Kauchali S and Davidson LL. Ethical challenges in Studying Psychosocial Needs of Children in a Time of HIV.

The following seminar was presented for Columbia University Center for Child, Adolescent and Family Life Epidemiology in 2008:

Kauchali S, Chhagan MK, Davidson LL, Mellins CM, Stein ZA, Susser I, Griffiths K. The ASENZE Study in KwaZulu-Natal: Health and Psychosocial Need in Children with Disability in a Time of HIV - an Informal Discussion.

The following seminar was presented for the UNICEF Early Childhood Development: Knowledge Building Seminar in 2008:

S Kauchali. The epidemiology of autism and other developmental disorders in a time of HIV in resource-poor settings.

The following posters were presented at the International AIDS Society Conference in 2008:

Griffiths K and Mhkize S. Voluntary Counseling and Testing in Rural KZN

PI/Country: Nancy Fiedler/U.S.A.

Major Foreign Collaborator: Wattasit Siriwong/Thailand

Grant Number: R21ES018722-02

Grant Title: Neurobehavioral effects of pesticide exposure among children in rural Thailand

Publications:

J. Rohitrattana, W. Siriwong, M.G. Robson, N. Fiedler; "Development of a neurobehavioral test for Thai children: a preliminary study" @ the 3rd International Conference on Public Health among Greater Mekong Sub-Regional Countries, Faculty of Postgraduate Studies, University of Health Sciences, Ministry of Health, Laos. 9-10 August, 2011

J. Rohitrattana, W. Siriwong, N. Fiedler, M.G. Robson; "A preliminary study of a neurobehavioral test for Thai children" @ the 11th Annual Conference of Public Health Sciences "Crisis in Public Health: Challenges and Solutions".Tawana Bangkok Hotel, Bangkok, Thailand. 30 September, 2011.

J. Rohitrattana, W. Siriwong, M.G. Robson, N. Fiedler; "Correlating neurobehavioral performance with blood cholinesterase levels in children living in agricultural area, Thailand" @ The 4th International Conference on Public Health among Greater Mekong Sub-Regional Countries,KMU, CHINA.15-16 September 2012.

J. Rohitrattana, W. Siriwong, M.G. Robson, N. Fiedler; "Development of a Neurobehavioral Test Battery for Thai Children" @ GeoTrop2012 the 9th International Conference on Environmental and Public Health Management: Towards Better Health and Well-Being. College of Public Health Sciences, Chulalongkorn University, Bangkok, Thailand. 2-4 October 2012.

Annette L. Fitzpatrick, PhD / USA

Quang Van Ngo, MD / Viet Nam

Annette L. Fitzpatrick

1 R21 TW008431-01A1

Neurological Manifestations of Cerebrovascular Disease in Da Nang, Viet Nam

Publications

Neurological Manifestations of Cerebrovascular Disease in Da Nang, Viet Nam

Manuscripts

Fitzpatrick AL, Ngo QV, Ly KA, Ton TG, Longstreth WT, Vo TT, Heitzinger K, Pham CH, Tirschwell DL. Symptoms and Risk Factors for Stroke in a Community-Based Sample in Da Nang, Viet Nam. *Journal of Epidemiology and Global Health* (in press).

Tirschwell DL, Ton TG, Ly KA, Ngo QV, Pham CH, Vo TT, Heitzinger K, Longstreth WT, Fitzpatrick AL. Stroke Characteristics, Care, and Mortality in a Hospital Stroke Registry in Viet Nam. *BMC Neurology* (in press).

Ly KA, Tirschwell DL, Ton TG, Ngo QV, Vo TT, Heitzinger K, Fitzpatrick AL. The Double Nutrition Burden in Viet Nam: Factors Associated with Underweight and Overweight Status Submitted to *BMC Public Health*.

Abstracts

Fitzpatrick AL, Ngo QV, Ly KA, Ton TG, Tirschwell DL, Longstreth WT, Vo TT, Pham CH . Mortality due to Stroke in Da Nang, Vietnam. Poster presentation to the International Stroke Conference, sponsored by the American Heart Association and American Stroke Association, in February 2011. *Stroke* 2011; 42(3): e249.

Ngo QV, Ly KA, Vo TT, Ton TG, Tirschwell DL, Longstreth WT, Pham CH, Fitzpatrick AL Characteristics of Stroke Subtype in a Stroke Registry in Da Nang, Vietnam. Poster presentation to the International Stroke Conference, sponsored by the American Heart Association and American Stroke Association, in February 2011. *Stroke* 2011; 42(3): e199.

Zachary P. Boas ZP, Fitzpatrick AL, Ngo QV, LoGerfo JP. Awareness of Hypertension and Determinants of Treatment in a Community-Based Observational Sample in Da Nang, Viet Nam. Refereed poster session at the American Heart Association Epidemiologic Council, March 2012.

Trinh D, Sharp S, Fitzpatrick AL, McKinney C, Ngo QV. Chronic Stress is related to Stroke Symptoms in Viet Nam. Accepted for Poster Presentation to the Society for Epidemiologic Research (July 2012).

Sharp S, Trinh D, McKinney C, Fitzpatrick AL, Ngo QV. The Association between Chronic Stress, Hypertension and Coronary Heart Disease in Viet Nam Accepted for Poster Presentation to the Society for Epidemiologic Research (July 2012)..

Uwhuba O, Xia T, Fitzpatrick AL, McKinney C, Ngo QV. Gait Speed and Stroke Symptoms in Adults in Da Nang, Viet Nam. Accepted for Poster Presentation to the Society for Epidemiologic Research (July 2012)..

Xia T, Uwhuba O, Gelaye B, McKinney C, Ngo QV, Fitzpatrick AL. Balance as a Risk Factor for Stroke Symptoms in Community-Dwelling Adults in Da Nang, Viet Nam. Accepted for Poster Presentation to the Society for Epidemiologic Research (July 2012)..

PI name/ PI Country: Richard L. Guerrant, USA

Major foreign collaborator name/ Foreign Collaborating Country: Aldo A. M. Lima and Reinaldo B. Oriá, Brazil

Grant number: (1 R01 HD053131)

Grant title: APOE and the Effects of Malnutrition on Cognitive and Intestinal Development

Publications:

1. Azevedo OG, Oliveira RA, Oliveira BC et al. Apolipoprotein E COG 133 mimetic peptide improves 5-fluorouracil-induced intestinal mucositis. *BMC Gastroenterol* 2012;12:35.
2. Costa LB, Noronha FJ, Roche JK et al. Novel in vitro and in vivo models and potential new therapeutics to break the vicious cycle of *Cryptosporidium* infection and malnutrition. *J Infect Dis* 2012;205(9):1464-1471.
3. Castro IC, Oliveira BB, Slowikowski JJ et al. Arginine decreases *Cryptosporidium parvum* infection in undernourished suckling mice involving nitric oxide synthase and arginase. *Nutrition* 2012;28(6):678-685.
4. Mitter SS, Oria RB, Kvalsund MP et al. Apolipoprotein E4 influences growth and cognitive responses to micronutrient supplementation in shantytown children from northeast Brazil. *Clinics (Sao Paulo)* 2012;67(1):11-18.
5. Pinkerton RC, Oria RB, Kent JW, Jr. et al. Evidence for genetic susceptibility to developing early childhood diarrhea among shantytown children living in northeastern Brazil. *Am J Trop Med Hyg* 2011;85(5):893-896.
6. Ueno PM, Oria RB, Maier EA et al. Alanyl-glutamine promotes intestinal epithelial cell homeostasis in vitro and in a murine model of weanling undernutrition. *Am J Physiol Gastrointest Liver Physiol* 2011;301(4):G612-G622.
7. Guerrant RL, Oria RB, Moore SR, Scharf R, Lima AA. Enteric protozoa and human potential. *Ann Trop Paediatr* 2011;31(3):201-203.
8. Costa LB, JohnBull EA, Reeves JT et al. *Cryptosporidium*-malnutrition interactions: mucosal disruption, cytokines, and TLR signaling in a weaned murine model. *J Parasitol* 2011;97(6):1113-1120.
9. Moore SR, Lima NL, Soares AM et al. Prolonged episodes of acute diarrhea reduce growth and increase risk of persistent diarrhea in children. *Gastroenterology* 2010;139(4):1156-1164.
10. Oria RB, Patrick PD, Oria MO et al. ApoE polymorphisms and diarrheal outcomes in Brazilian shanty town children. *Braz J Med Biol Res* 2010;43(3):249-256.
11. Ladd FV, Ladd AA, Ribeiro AA et al. Zinc and glutamine improve brain development in suckling mice subjected to early postnatal malnutrition. *Nutrition* 2010;26(6):662-670.
12. Oria RB, Costa CM, Lima AA, Patrick PD, Guerrant RL. Semantic fluency: a sensitive marker for cognitive impairment in children with heavy diarrhea burdens? *Med Hypotheses* 2009;73(5):682-686.
13. Guerrant RL, Oria RB, Moore SR, Oria MO, Lima AA. Malnutrition as an enteric infectious disease with long-term effects on child development. *Nutr Rev* 2008;66(9):487-505.
14. Coutinho BP, Oria RB, Vieira CM et al. *Cryptosporidium* infection causes undernutrition and, conversely, weanling undernutrition intensifies infection. *J Parasitol* 2008;94(6):1225-1232.
15. Maciel AA, Oria RB, Braga-Neto MB et al. Role of retinol in protecting epithelial cell damage induced by *Clostridium difficile* toxin A. *Toxicon* 2007;50(8):1027-1040.

16. Guerrant RL, Oria RB, Boissevain JR, Patrick PD, Lima AA. Infectious diseases, balanced polymorphisms, and human evolution: a declaration of interdependence. *Curr Infect Dis Rep* 2007;9(2):83-85.
17. Oria RB, Patrick PD, Blackman JA, Lima AA, Guerrant RL. Role of apolipoprotein E4 in protecting children against early childhood diarrhea outcomes and implications for later development. *Med Hypotheses* 2007;68(5):1099-1107.
18. Guerrant RL, Oria R, Bushen OY, Patrick PD, Houpt E, Lima AA. Global impact of diarrheal diseases that are sampled by travelers: the rest of the hippopotamus. *Clin Infect Dis* 2005;41 Suppl 8:S524-S530.

Submitted:

1. Azevedo, O.G.R, Roche, J.K., Pinkerton, R.F, Bolick, D.T., Lima, A.A.M., Vitek, M.P., Warren, C.A., Oriá, R.B., Guerrant, R.L. APOE4 protects against Cryptosporidial infection in APOE4 targeted transgenic undernourished mice. *Journal of Infection*, 2012.

PI: Krister Kristensson, Sweden

Major foreign collaborators:

Alfred K Njamnshi, Cameroon (Presenter)

Marina Bentivoglio, Italy

Grant number: 1R21NS064888-01A1

Grant title: Neural dysfunction and neuroinflammation in African brain disorders

PUBLICATION LIST

PhD in Neuroscience Thesis – Paul F. Seke Etet - (defended at the University of Verona, May 3, 2011):
Title: “Sleep and wake alterations in African trypanosomiasis: Functional and histopathological study”.

Articles

Bentivoglio M.: The cell orchestra of neuroinflammation in African diseases. *Archives of Ibadan Medicine* 11, 15-21, 2011

Bentivoglio M., Mariotti R., Bertini G.: Neuroinflammation and brain infections: Historical context and current perspectives. *Brain Res. Rev.* 66, 152-173, 2011

Nsagha D.S., Bamgboye E.A., Nguedia Assob J.C., Njunda A.L., Fomou Kamga H.L., Bissek A.C. Z-K, Tabah E.N., Oyediran AB. O.O., Njamnshi A.K.: Elimination of leprosy as a public health problem by 2000 ad: an epidemiological perspective. *Pan African Medical Journal*, 4 :4, 2011.

Nsagha D.S., Bissek A.C. Z-K, Nsagha S.M., Njunda A.L., Nguedia Assob J.C., Tabah E.N., Bamgboye E.A., Oyediran AB. O.O., Nde F.P., Njamnshi A.K.: Social stigma as an epidemiological determinant for leprosy elimination in cameroon. *Journal of Public Health in Africa* 2:38-44, 2011.

Amin DA; Vodnala SK, Masocha W, Sun B, Kristensson K, Rottenberg M: Distinct TLR signals regulate cerebral parasite load and an IFN- α/β and TNF- α dependent T cell infiltration in the brain of *Trypanosoma brucei*-infected mice. *J Infect Dis.* 205:320-32, 2012.

Seke Etet PF, Palomba M, Colavito V, Grassi-Zucconi G, Bentivoglio M, Bertini G: Sleep and rhythm changes at the time of *Trypanosoma brucei* invasion of the brain parenchyma in the rat. *Chronobiol. Int.* 29, 469-481, 2012

Njamnshi AK, Perrig S, Seke Etet PF, Acho A, Fonsah JY, Mumba DN, Muyembe J-J, Kristensson K, Bentivoglio: Actigraphy in human African trypanosomiasis: A new tool to evaluate disease severity. *PLoS Negl Trop Dis* 6:e1525, 2012.

Principal Investigator: Mohammad Hossein Rahbar, PhD / USA
Professor of Epidemiology & Biostatistics, The University of Texas School of Public Health at Houston

Presenter: **Mohammad Hossein Rahbar, PhD**

Maureen Samms-Vaughan, MD, PhD / Jamaica

Professor of Child Health, The University of the West Indies

Grant Number: 1R21HD057808-01A1

Publications:

1. Rahbar, M. H., Samms-Vaughan, M., Ardjomand-Hessabi, M., Loveland, K. A., Dickerson, A. S., Chen, Z., Bressler, J., Shakespeare-Pellington, S., Grove, M. L., Bloom, K., Wirth, J., Pearson, D. A., Boerwinkle, E. The role of drinking water, vegetables, and seafood consumption in relation to blood arsenic concentrations of Jamaican children with and without Autism Spectrum Disorders. *Sci Total Environ*, 2012. 433C: 362-370.
2. Rahbar, M. H., Samms-Vaughan, M., Loveland, K. A., Ardjomand-Hessabi, M., Chen, Z., Bressler, J., Shakespeare-Pellington, S., Grove, M. L., Bloom, K., Pearson, D. A., Lalor, G. C., Boerwinkle, E. Seafood Consumption and Blood Mercury Concentrations in Jamaican Children With and Without Autism Spectrum Disorders [**Epub ahead of print**]. *Neurotoxicity Research*, 2012.
3. Rahbar, M.H., Samms-Vaughan, M., Loveland, K.A., Pearson, D.A., Bressler, J., Chen, Z., Ardjomand-Hessabi, M., Shakespeare-Pellington, S., Grove, M.L., Beecher, C., Bloom, K., Boerwinkle, E. Maternal and paternal age are jointly associated with childhood autism in Jamaican. *J Autism Dev Disord*. 2012, 42(9):1928-38.

Diane S. Rohlman/ USA,

Gaafar Abdel Rasoul & Ahmed Ismail/ Egypt,

Diane Rohlman

R21 ES017223,

Assessing Vulnerability of the Adolescent Brain to Organophosphorus Pesticides

Publications

Abdel Rasoul, GM, Abou Salem, ME, Mechael, AA, Hendy, OM, Rohlman, DS, & Ismail, AA. (2008). Effects of occupational pesticide exposure on children applying pesticides. *Neurotoxicology*, 29(5), 833-838. PMID: 18662718

Ismail, AA, Rohlman, DS, Abdel Rasoul, GM, Abou Salem, ME, & Hendy, OM. (2010). Clinical and biochemical parameters of children and adolescents applying pesticides. *International Journal of Occupational and Environmental Medicine*, 1, 132-143. PMID: 23022799

Rohlman DS, Anger WK, Lein PJ. (2011). Correlating neurobehavioral performance with biomarkers of organophosphorous pesticide exposure. *Neurotoxicology*. 32(2):268-76. Epub 2010 Dec 21. PMID: 21182866

Ismail AA, Bodner TE, Rohlman DS (2012). Neurobehavioral Performance among Agricultural Workers and Pesticide Applicators: A Meta-Analytic Study. *Occup Environ Med*, 69(7):660-8.

Rohlman DS, Nuwayhid I, Ismail A, Saddik B (2012). Using Epidemiology and Neurotoxicology to Reduce Risks to Young workers. *Neurotoxicology*, 33(4): 817-22. Epub 2012 Feb 25. PMID: 22394482

London L, Beseler C, Bouchard MF, Bellinger D, Colosio C, Grandjean P, Harari R, Kootbodien T, Kromhout H, Little F, Meijster T, Moretto A, Rohlman, DS, Stallones L (2012). Neurobehavioral and Neurodevelopmental Effects of Pesticide Exposure. *Neurotoxicology*, 33(4): 887-96. Epub 2012 Jan 17. PMID: 22269431

Crane AL, Abdel Rasoul G, Ismail AA, Hendy O, Bonner MR, Lasarev MR, Al-Batanony M, Singleton ST, Khan K, Olson JR, Rohlman DS. (accepted). Longitudinal Assessment of Chlorpyrifos Exposure and Effect Biomarkers in Adolescent Egyptian Agricultural Workers. *Journal of Exposure Science and Environmental Epidemiology*.

Khan K, Ismail AA, Abdel Rasoul G, Bonner MR, Lasarev MR, Hendy O, Al-Batanony M, Crane AL, Singleton ST, Olson JR, Rohlman DS Longitudinal Assessment of Chlorpyrifos Exposure and Self-reported Neurological Symptoms in Adolescent Pesticide Applicators (submitted).

Presentations

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PI: Ned Sacktor/USA

Collaborator: Elly Katabira and Noeline Nakasujja/Uganda

Presenter: Ned Sacktor, MD

Grant#: MH 083465

Title: HIV DEMENTIA AND SENSORY NEUROPATHY IN UGANDA

Publications

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PI: Stephen Schroeder

Grant Title: Early Prevention of Aberrant Behavior in Neurodevelopmental Disorders in Peru

Grant Title: R21HD060500

FIC HD 060500

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Two more have been submitted and nie more are in preparation.

PI: Desire Tshala-Katumbay, MD PhD (Oregon Health & Science University, USA)
Major US collaborator: Michael Boivin, MD MPH (Michigan State University, USA)
Major foreign collaborator: Tamfum Myembe, MD PhD (National Institute for Biomedical Research, Democratic Republic of Congo, DRC)

Presenter: Desire Tshala-Katumbay, MD PhD

Grant number: R01ES01984102

Grant title: Toxicodietary and genetic determinants of susceptibility to neurodegeneration

Relevant publications

1. Michael J. Boivin, Daniel Okitundu, Bumoko Makila-Mabe, Marie-Therese Sombo, Dieudonne Mumba, Thorkild Tylleskar, Connie E. Page, Jean-Jacques Tamfum-Muyembe, Desire Tshala-Katumbay. Neuropsychological Effects of Konzo: A Permanent Neuromotor Disorder from Insufficiently Processed Cassava. Under revision J Pediatrics, 2012
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1. Monterroso, Victor H.; Howell, Sue; Larin, Jorge; Morales, Pablo; Wagner, Joseph; Tshala-Katumbay, Desire. Effect of Cassava diet on Cynomolgus Macaques (*Macaca fascicularis*) on Body Weights, physical exams, and Clinical Laboratory: A Model Development. American Association for Laboratory Animal Science, 2012, MN
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3. Monterroso, Victor H; Kimani, Samuel; Howell, Sue; Larin, Jorge; Morales, Pablo; Wagner, Joseph; Tshala-Katumbay, Desire. Effect of Cassava diet on Cynomolgus Macaques (*Macaca fascicularis*) Plasma Rhodanese Activity: An Experimental Model of Cassava-associated Human Disease? American Association for Laboratory Animal Science, 2012, MN

PI: Jasmin Vassileva, Ph.D., University of Illinois at Chicago, USA

Foreign Collaborator: Georgi Vasilev, MD MPH, Bulgarian Addictions Institute, Sofia, Bulgaria

Presenter name: **Jasmin Vassileva**

Grant number: R01DA021421

Grant title: Varieties of Impulsivity in Opiate and Stimulant Users

Publications:

1. Vassileva, J., Petkova, P., Georgiev, S., Martin, E. M., Tersiyiski, R., Velinov, V., Raycheva, M., Marinov, P. (2007). Impaired decision making in psychopathic heroin addicts. *Drug and Alcohol Dependence*, 86, 287-289.
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