

# PROF. FRED STEPHEN SARFO

---

<b>Nationality</b>	Ghanaian
<b>Date of Birth</b>	21 <sup>st</sup> March 1978
<b>Marital Status</b>	Married
<b>Sex</b>	Male
<b>Education</b>	<ul style="list-style-type: none"><li>▪ Bachelor of Medicine, Bachelor of Surgery Nkrumah University of Science and Technology, Sciences Sept. 2003 Kwame School of Medical</li><li>▪ Human Biology, Nkrumah University of Science and Technology, Sciences Sept. 2000 Kwame School of Medical</li><li>▪ West African College of Physicians – <b>Primaries</b> 2006</li><li>▪ Member West Africa College of Physicians - <b>MWACP</b> 2008</li><li>▪ Fellow West Africa College of Physicians- <b>FWACP</b> 2012</li><li>▪ Doctor of Philosophy (Durham University, UK) – <b>PhD</b> 2013</li><li>▪ Doctor of Philosophy (KNUST, Kumasi, Ghana)- <b>PhD</b> 2014</li></ul>
<b>Professional experience</b>	<ul style="list-style-type: none"><li>▪ Associate Professor, Division of Neurology, Department of Medicine, School of Medical Sciences, August 2019 to date</li><li>▪ Senior Lecturer, Department of Medicine, School of Medical Sciences, September 2013 to 2019</li><li>▪ Senior Physician Specialist, Department of Medicine, Komfo Anokye Teaching Hospital Jan 2011 to date</li><li>▪ Physician Specialist, Department of Medicine, Komfo Anokye Teaching Hospital April 2008 to Dec 2010</li><li>▪ Resident Medical Officer, Internal Medicine Komfo Anokye Teaching Hospital Dec. 2004 – March 2008</li><li>▪ House Officer, Department of Obstetrics &amp; Gynaecology Komfo Anokye Teaching Hospital June 2004 – Nov. 2004</li></ul>

- House Officer, Department of Internal Medicine  
Komfo Anokye Teaching Hospital Dec. 2003 – May 2004

## Patents and publications

1. **Sarfo FS**, Akpa O, Ovbiagele B, Akpalu A, Wahab K, Komolafe M, et al. Influence of age on links between major modifiable risk factors and stroke occurrence in West Africa. *J Neurol Sci.* 2021; 428:117573.
2. **Sarfo FS**, Akinyemi J, Akpalu A, Wahab K, Yaria J, Adebayo O, et al. Frequency and factors associated with post-stroke seizures in a large multicenter study in West Africa. *J Neurol Sci.* 2021;427:117535.
3. **Sarfo FS**, Ovbiagele B. Quantitative and qualitative analyses of herbal medication use among Ghanaian stroke survivors. *J Neurol Sci.* 2021;427:117540.
4. **Sarfo FS**, Akpalu A, Bockarie A, Appiah L, Nguah SB, Ayisi-Boateng NK, et al. Phone-Based Intervention under Nurse Guidance after Stroke (PINGS II) Study: Protocol for a Phase III Randomized Clinical Trial. *Journal of Stroke & Cerebro Disease.* 2021; 30(8):105888.
5. **Sarfo FS**, Ovbiagele B, Akpa O, Akpalu A, Wahab K, Obiako R, et al. Risk factor characterization of Ischemic Stroke Subtypes among West Africans. *Stroke.* 2021
6. **Sarfo FS, Ovbiagele B.** Potential of Videoconferencing to Augment Clinical Teaching of Neurology in Ghana. *J Neurol Sci.* 2021;426:117471.
7. **Sarfo FS**, Norman B, Appiah L, Ovbiagele B. Factors associated with incidence of stroke and heart failure among people living with HIV in Ghana: Evaluating Vascular Event Risk while on Long-term Antiretroviral Suppressive Therapy (EVERLAST) study. *Journal of Clinical Hypertension.* 2021;23(6):1252-1259.
8. **Sarfo FS**, Adamu S, Obese V, Agbenorku M, Opare-Addo PA, Ovbiagele B. Atherosclerotic event risk and risk reduction therapies among Ghanaian hemorrhagic stroke survivors. *J Neurol Sci.* 2021:117389.
9. **Sarfo FS**, Ovbiagele B. Prevalence and predictors of multivitamin supplement use after stroke in Ghana. *J Stroke Cerebrovasc Dis.* 2021 Mar 18;30(6):105735.
10. **Sarfo FS**, Agyei M, Ogyefo I, Opare-Addo PA, Ovbiagele B. Factors linked to Chronic kidney disease among stroke survivors in Ghana. *J Stroke Cerebrovasc Dis.* 2021 Mar 8;30(5):105720.
11. Akpa O, **Sarfo FS**, Owolabi M, Akpalu A, Wahab K, Obiako R, et al. A novel Afrocentric stroke risk assessment score: models from the SIREN Study. *J Stroke Cerebrovasc Dis.* 2021; 30(10): 106003.
12. Owolabi MO, Thrift AG, Martins S, Johnson W, Pandian J, Abd-Allah F, et al. The state of stroke services across the globe: Report of World Stroke Organization-World Health Organization. *Int J Stroke.* 2021.
13. Akinyemi RO, Ovbiagele B, Adeniji OO, **Sarfo FS**, Abdallah F, Adokonou T, et al. Stroke in Africa: Profile, Progress, Prospects and Priorities. *Nature Reviews* 2021
14. Beghi E, Michael BD, Solomon T, Westenberg E, Winkler AS; COVID-19 Neuro Research Coalition. Approaches to understanding COVID-19 and its neurological associations. *Ann Neurol.* 2021; 89(6):1059-67.

15. Nogueira RG, Qureshi MM, Abdalkader M, Martins SO, Yamagami H, Qiu Z,...Sarfo FS, et al SVIN COVID-19 Global Stroke Registry. Global impact of COVID-19 on Stroke Care and Intravenous Thrombolysis. *Neurology*. 2021;96(23):e2824-e2838.
16. **Sarfo FS**, Akassi J, Obese V, Adamu S, Agbenorku M, Ovbiagele B. Prevalence and predictors of post-stroke epilepsy among Ghanaian stroke survivors. *J Neurol Sci*. 2020. Nov 15;418:117138.
17. **Sarfo FS**. Associations between hypertension knowledge, awareness and treatment & stroke occurrence across the globe: time to act on what we know. *Heart*. 2020 Dec 14;heartjnl-2020-318019.
18. **Sarfo FS**, Ovbiagele B. Apparent Treatment Resistant Hypertension among stroke survivors in Ghana. *J Stroke Cerebrovasc Dis*. 2020 Dec;29(12):105401.
19. **Sarfo FS**, Akassi J, Agyei M, Kontoh S, Ovbiagele B. Risk factor control in stroke survivors with diagnosed and undiagnosed diabetes: A Ghanaian registry analysis. *J Stroke Cerebrovasc Dis*. 2020 Dec;29(12):105304.
20. **Sarfo FS**, Mensah NO, Opoku FA, Adusei-Mensah N, Ampofo M, Ovbiagele B. COVID-19 and stroke: Experience in a Ghanaian healthcare system. *J Neurol Sci*. 2020 Sep 15;416:117044.
21. **Sarfo FS**, Akassi J, Adamu S, Obese V, Agbenorku M, Ovbiagele B. Frequency and factors linked to refractory hypertension among stroke survivors. *J Neurol Sci*. 2020; Aug 15;415:116976.
22. Akpa OM, Okekunle AP, Ovbiagele B, **Sarfo FS**, Akinyemi RO, Akpalu A, Wahab KW, et al. Factors associated with hypertension among stroke-free indigenous Africans: Findings from the SIREN study. *J Clin Hypertension*. 2021;23(4):773-784.
23. Akpalu A, Adjei P, Nkromah K, Poku FO, **Sarfo FS**. Neurological disorders encountered at an out-patient clinic in Ghana's largest medical center: a 16-year review. *eNeurologicalSci*. 2021;24:100361.
24. Tanida K, Hahn A, Eberhardt KA, Tannich E, Landt O, Kann S, Feldt T, **Sarfo FS**, et al. Comparative assessment of in-house real-time PCRs targeting enteric disease-associated microsporidia in human stool samples. *Pathogens* 2021; 10(6):656.
25. Chauwa L, Appiah CA, Nsiah K, **Sarfo FS**. Nutritional risk markers among stroke out-patients at the Neurology clinic of a teaching hospital in Ghana. *The Pan African Medical Journal*. 2020;37:258
26. Ayisi-Boateng NK, Owusu M, Tawiah P, Ampah BA, Sylverken AA, Wusu-Ansah OK, Sarfo FS, Phillips RO. Profile and outcomes of hospitalized patients with COVID-19 at a tertiary institution hospital in Ghana. *Ghana Med J*. 2020;54(4): S39-45.
27. Owolabi M, **Sarfo FS**, Akinyemi R, Gebreyohanns M, Ovbiagele B. The Sub-Saharan Africa Conference on Stroke (SSACS): An idea whose time has come. *J Neurol Sci*. 2019 May 15;400:194-198.
28. **Sarfo FS**, Ovbiagele B. Prevalence and predictors of statin utilization among patient populations at high vascular risk in Ghana. *J Neurol Sci*. 2020 Jul 15;414:116838.
29. Gebreyohanns M, Akinyemi RA, Owolabi MO, **Sarfo FS**, Ovbiagele B. The

inaugural African Stroke Organization Conference. *J Neurol Sci.* 2020;418:117089.

30. Ayisi-Boateng NK, Mohammed A, Anning DP, **Sarfo FS**. Frequency and factors associated with apparent resistant hypertension among Ghanaians in a multicenter study. *J Clin Hypertens (Greenwich)*. 2020 Sep;22(9):1594-1602.
31. Baatiema L, Aikins AD, Sarfo FS, Abimbola S, Ganle J, Somerset S. Towards evidence-based policies to strengthen acute stroke care in low-middle-income countries. *J Neurol Sci.* 2020 Nov 15;418:117117.
32. Sarfo FS, Mobula LM, Adade T, Commodore-Mensah Y, Agyei M, Kokuro C, et al. Low blood pressure levels & incident stroke risk among elderly Ghanaians with hypertension. *J Neurol Sci.* 2020 Jun 15;413:116770.
33. Sarfo FS, Mobula L, Plange-Rhule J, Gebregziabher M, Ansong D, Sarfo-Kantanka O, et al. Longitudinal control of blood pressure among a cohort of Ghanaians with hypertension: a Multicenter, hospital-based study. *J Clin Hypertens (Greenwich)*. 2020 Jun;22(6):949-958
34. Sarfo FS, Akinyemi R, Howard G, Howard VJ, Wahab K, Cushman M, et al. [Vascular-brain Injury Progression after Stroke \(VIPs\) study: concept for understanding racial and geographic determinants of cognitive decline after stroke.](#) *J Neurol Sci.* 2020 May 15;412:116754
35. Sarfo FS, Ovbiagele B, Gebregziabher M, Akpa O, Akpalu A, Wahab K, et al. Unraveling the risk factors for spontaneous intracerebral hemorrhage among West Africans. *Neurology.* 2020 Mar 10;94(10):e998-e1012.
36. Cilia R, Cereda E, Akpalu A, Sarfo FS, Cham M, Laryea R, et al. The natural history of motor symptoms of Parkinson's disease and their long-duration response to Levodopa. A prospective naturalistic study on drug-naïve patients in sub-Saharan Africa. **Brain** 2020. Aug 1;143(8):2490-2501.
37. Phillips RO, Robert J, Abass KM, Thompson W, **Sarfo FS**, Wilson T, et al. Randomized trial to compare clarithromycin (extended release)-rifampicin and streptomycin-rifampicin for early, limited lesions of *M. ulcerans* infection. **Lancet** 2020. 395(10232):1259-1267.
38. Sarfo FS, Ovbiagele B, Matthew OA, Akpalu A, Wahab K, Obiako R, et al. Antecedent febrile illness and occurrence of stroke in West Africa: The SIREN study. *J Neurol Sci.* 2020 Nov 15;418:117158.
39. Sarfo FS, Singh A, Tagge R, Mensah G, Ovbiagele B. Duration of antiretroviral therapy among people living with HIV and incidence of hypertension in Ghana. *J Clin Hypertens (Greenwich)*. 2020 Dec;22(12):2361-2371.
40. Akpa OM, Made F, Ojo A, Ovbiagele B, Adu Dwomoa, Motala AA, .... **Sarfo F**. et al. Regional patterns and association between obesity and hypertension in Africa: Evidence from the H3Africa CHAIR study. **Hypertension** 2020. 75(5):1167-1178.
41. Akinyemi RO, Jenkins C, Nichols M, Singh A, Wahab K, Akpalu A, **Sarfo FS**, et al. Unraveling the Ethical, Legal, and Social Implications of Neurobiobanking and Stroke Genomic Research in Africa: A Study Protocol of the African Neurobiobank for Precision Stroke Medicine ELSI Project. **International Journal of Qualitative Methods.** 2020;19:1-13
42. Neary M, Olagunju A, **Sarfo F**, Phillips R, Moss Darren, Owen A, et al. Do genetic variations in proximal tubule transporters influence tenofovir-induced

renal dysfunction? An exploratory study in a Ghanaian population. **J Antimicrob Chemother.** 2020 May 1;75(5):1267-1271.

43. Di Cristanziano V, Weimer K, Bottcher S, **Sarfo FS**, Dompok A, Cesar LG, et al. Molecular characterization and clinical description of non-polio enteroviruses detected in stool samples from HIV positive and negative adults in Ghana. *Viruses* 2020; Feb 16;12(2):221.
44. Baatiema L, de-Graft Aikins A, **Sarfo FS**, Abimbola S, Ganle JK, Somerset S. [Improving the quality of care for people who had a stroke in a low-/middle-income country: A qualitative analysis of health-care professionals' perspectives.](#) *Health Expect.* 2020 Apr;23(2):450-460.
45. Akinyemi R, **Sarfo F**, Abd-Allah F, Ogun Y, Belo M, Francis P, et al. [Conceptual framework for establishing the African Stroke Organization.](#) *Int J Stroke.* 2020 Feb 6:1747493019897871. doi: 10.1177/1747493019897871.
46. Owusu DO, Phillips R, Owusu M, Sarfo FS, Frempong M. Increased levels of circulating IL-10 in persons recovered from hepatitis C virus (HCV) infection compared with persons with active HCV infection. *BMC Res Notes.* 2020 Oct 7;13(1):472.
47. Sarfo FS, Norman B, Nichols M, Appiah L, Osei Assibey S, Tagge R, et al. Prevalence and incidence of pre-diabetes and diabetes mellitus among people living with HIV in Ghana: Evidence from the EVERLAST Study. *HIV Med.* 2020 Nov 10. doi: 10.1111/hiv.13007.
48. Appiah LT, Sarfo FS, Nguah SB, Huffman MD, Stiles JK, Feinstein MJ. Lipoprotein(a) and High Sensitivity C-reactive protein among patients with HIV in Ghana: The Study on Cardiovascular Risk Profile of HIV-infected patients on HAART (SCRIPT). *Glob Heart.* 2020 Nov 3;15(1):74.
49. Bernard C, Font H, Diallo Z, Ahonon R, Tine JM, N'guessan Abouo F, leDEA West Africa Cohort Collaboration. *BMC Psychiatry.* 2020 Sep 10;20(1):442.
50. Banchani E, Tenkorang EY, Sarfo-Kantanka O, **Sarfo FS**. Social support systems and the self-management of non-communicable diseases (NCDs) in Ghana. *Journal of Health Care for the Poor and Underserved.* 2020;31(3):1191-1212.
51. Appiah LT, **Sarfo FS**, Huffman MD, Nguah SB, Stiles JK. Cardiovascular risk factors among Ghanaian patients with HIV: A cross-sectional study. *Clin Cardiol.* 2019 Sep 30. doi: 10.1002/clc.23273.
52. Wahab KW, Tiwari HK, Ovbiagele B, **Sarfo F**, Akinyemi R, Traylor M, et al. Genetic risk of Spontaneous Intracerebral hemorrhage: Systematic review and future directions. *J Neurol Sci.* 2019 Oct 13;407:116526.
53. Nichols M, Singh A, **Sarfo FS**, Treiber F, Tagge R, Jenkins C, et al. Post-intervention qualitative assessment of mobile health technology to manage hypertension among Ghanaian stroke survivors. *J Neurol Sci.* 2019 Sep 13;406:116462.
54. **Sarfo FS**, Agbenorku M, Adamu S, Obese V, Berchie P, Ovbiagele B; PINGS Study Investigators. The dynamics of Poststroke depression among Ghanaians. *J Neurol Sci.* 2019; 05:116410.
55. **Fred Stephen Sarfo**, Linda M Mobula, Lynda Arthur, Jacob Plange-Rhule, Gilbert Burnham, Jasper Sablah, et al. Differential pricing of medicines to improve access to medicines for hypertension and diabetes control in Ghana:

The Ghana Access and Affordability Program, a multi-center prospective trial. Gates Open Research, 2019

56. Tannor EK, **Sarfo FS**, Mobula LM, Sarfo-Kantanka O, Adu-Gyamfi R, Plange-Rhule J. Prevalence and predictors of chronic kidney disease among Ghanaian patients with hypertension and diabetes mellitus: A multicenter cross-sectional study. *J Clin Hypertens (Greenwich)*. 2019 Aug 29. 21(10):1542-1550.
57. Di Cristanziano V, D Alfonso R, Berrilli F, **Sarfo FS**, Santoro M, Fabeni L, et al. Lower prevalence of Blastocystis sp. Infections in HIV positive compared to HIV negative adults in Ghana. *PLoS One*. 2019 Sep 3;14(9):e0221968.
58. **Sarfo FS**. Response by Sarfo to letter regarding “Patients with hypertension and/or diabetes and incident stroke: a risk assessment”. *J Neurol Sci*. 2018.
59. **Sarfo FS**, Nichols M, Singh A, Hardy Y, Norman B, Mensah G, et al. Characteristics of hypertension among people living with HIV in Ghana: impact of new hypertension guideline. *J Clin Hypertension (Greenwich)* 2019
60. **Sarfo FS**, Castelnovo B, Fanti L, Feldt T, Incardona F, Kaiser R, et al. Long-term effectiveness of protease-inhibitor based second line antiretroviral therapy in four large sub-Saharan African Clinics. *J Infection*. 2019;78(5):402-408.
61. **Sarfo FS**, Berchie P, Singh A, Nichols M, Agyei-Frimpong M, Jenkins C, et al. Prevalence, trajectory and predictors of poststroke fatigue among Ghanaians. *J Stroke Cerebrovasc Dis*. 2019;28(5):1353-1361.
62. Sarfo FS, Nichols M, Gebregziabher M, Tagge R, Osei Asibey S, Jenkins C, et al. Evaluation of vascular event risk while on Long-term antiretroviral suppressive therapy [EVERLAST]: Protocol for a prospective observational study. *eNeurologicalSci*. 2019;15:100189.
63. Adeoye AM, Ovbiagele B, Akinyemi JO, Ogah OS, Akinyemi R, Gebregziabher M, Wahab K, Fakunle AG, Akintunde A, Adebayo O, Aje A, Tiwari HK, Arnett D, Agyekum F, Appiah LT, Amusa G, Olunuga TO, Onoja A, **Sarfo FS**, et al. Echocardiographic abnormalities and determinants of 1-month outcome of stroke among West Africans in the SIREN study. *J Am Heart Assoc*. 2019;11(11):e010814.
64. Akpalu A, Gebregziabher M, Ovbiagele B, **Sarfo F**, Iheonye H, Akinyemi R, et al. Differential Impact of Risk factors on stroke occurrence among men versus women in West Africa. *Stroke*. 2019;50(4):820-827.
65. **Sarfo FS**. Response by Sarfo to letter regarding “Estimated glomerular filtration rate and incident stroke in patients with hypertension and/or diabetes. *J Neurol Sci*. 2019;397:112-113.
66. **Sarfo FS**, Nichols M, Agyei B, Singh A, Ennin E, Nyantakyi AD, et al. Burden of subclinical carotid atherosclerosis and vascular risk factors among people living with HIV in Ghana. *J Neurol. Sci*. 2019;397:103-111.
67. **Sarfo FS**. Dyslipidemia among adult Africans: comment. **Lancet Global Health** 2018;e940-e941.
68. **Sarfo FS**, Treiber F, Gebregziabher M, Adamu S, Patel S, Nichols M et al. PINGS (Phone-based Intervention Under Nurse Guidance After Stroke): Interim Results of a Pilot Randomized Controlled Trial. **Stroke** 2018; 49(1):236-239.
69. Tannor EK, Norman BR, Adusei KK, Sarfo FS, Davids MR, Bedu-Addo G. [Quality of life among patients with moderate to advanced chronic kidney](#)

[disease in Ghana - a single centre study](#). BMC Nephrol. 2019 Apr 8;20(1):122. doi: 10.1186/s12882-019-1316-z. PubMed PMID: 30961570.

70. Owolabi M, **Sarfo FS**, Akinyemi R, Gebreyohannis, Ovbiagele B. The Sub-Saharan Africa Conference on Stroke (SSACS): an idea whose time has come. J Neurol. Sci. 2019;400:194-198.
71. Berchie PO, Sarfo FS, Opare-Sem OK, Ovbiagele B. Recurrent stroke in a Ghanaian patient with Polycythemia. J Stroke Cerebrovasc Dis. 2019 Mar;28(3):850-852.
72. **Sarfo FS**, Mobula LM, Sarfo-Kantanka O, Adamu S, Plange-Rhule J, Ansong D, et al. Estimated glomerular filtration predicts incident stroke among Ghanaians with diabetes and hypertension. J Neurol Sci. 2019;396:140-147.
73. Owolabi M, **Sarfo FS**, Akinyemi R, Gebregziabher M, Akpa O, Akpalu A, et al. Dominant risk factors for stroke among West Africans: findings from the SIREN large multisite study. **Lancet Global Health** 2018;6(4): e436-e446.
74. **Sarfo FS**, Opare-Sem O, Agyei M, Akassi J, Owusu D, Owolabi M, Ovbiagele B. Risk factors for stroke occurrence in a low HIV endemic West African country: a case-control study. **J Neurol Sci.** 2018. **395:8-16**.
75. Jesson J, Ephoevi-Ga A, Desmonde S, Ake-Assi MH, D'Almeida M, Sy HS, Malateste K, Amorissani-Folquet M, Dicko F, Kouadio K, Renner L, Leroy V; leDEA West African Pediatric Collaboration.. [Growth in the first five years after Antiretroviral Therapy initiation among HIV-infected children in the leDEA West African Pediatric Cohort](#). Trop Med Int Health. 2019 Apr 4. doi: 10.1111/tmi.13237.
76. **Sarfo FS**, Ovbiagele B, Gebregziabher M, Wahab K, Akinyemi R, Akpalu A, et al. Stroke Among Young West Africans: evidence from the SIREN, Large Multisite case-control study. **Stroke.** 2018;49(5):1116-1122.
77. **Sarfo FS**, Mobula LM, Plange-Rhule J, Ansong D, Ofori-Adjei D. Incident stroke among Ghanaians with hypertension and diabetes: a multicenter, prospective cohort study. **J Neurol Sci.** 2018;**395:17-24**.
78. **Sarfo FS**, Treiber F, Gebregziabher M, Adamu S, Nichols M, Singh A, et al. Phone-based Intervention for blood pressure control among Ghanaian stroke survivors: a pilot randomized controlled trial. **International Journal of Stroke.** 2018. Nov 22:1747493018816423. doi: 10.1177/1747493018816423.
79. **Sarfo FS**, Mobula LM, Burnham G, Ansong D, Plange-Rhule J, Sarfo-Kantanka O, et al. Factors associated uncontrolled blood pressure among Ghanaians: Evidence from a multicenter hospital-based study. **PLoS One.** 2018;13(3):e0193494.
80. **Sarfo FS**, Akassi J, Kyem G, Adamu S, Awuah D, Kantanks OS, **et al**. Long-term outcomes of Stroke in a Ghanaian Outpatient Clinic. **J Stroke Cerebrovasc Dis.** 2018;27(3):1090-1099.
81. Osei Sarfo-Kantanka, **Sarfo FS**, Kyei I, Agyemang C, Mbanya JC. Incidence and determinants of diabetes-related lower limb amputations in Ghana, 2010-2015- a retrospective cohort study. BMC Endocrine Disorders. 2019;19:27.
82. Owolabi MO, Akpa OM, Made F, Adebamowo SN, Ojo A, Adu D, et al. Data resource profile: Cardiovascular H3Africa Innovation Resource (CHAIR). Int J Epidemiol. 2018Dec 6. doi: 10.1093/ije/dyy261.

83. Mobula LM, **Sarfo FS**, Carson KA, Burnham G, Arthur L, Ansong D, et al. Predictors of glycemic control in type-2 diabetes mellitus: evidence from a multicenter study in Ghana. *Translational Metabolic syndrome research*. 2018
84. **Sarfo FS**, Ovbiagele B. Response by Sarfo and Ovbiagele to letter regarding "Post-stroke depression: Risk assessment". *J Neurol Sci*. 2018;387:94-97.
85. **Sarfo FS**, Sarfo-Kantanka O, Adamu S, Obese V, Voeks J, Tagge R, et al. Stroke Minimization through Additive Anti-atherosclerotic Agents in Routine Treatment (SMAART): study protocol for a randomized controlled trial. *Trials*. 2018; 19(1):181.
86. **Sarfo FS**, Adusei N, Ampofo M, Kpeme FK, Ovbiagele B. Pilot trial of a tele-rehab intervention to improve outcomes after stroke in Ghana: a feasibility and user satisfaction study. *J Neurol Sci*. 2018; 387:94-97.
87. Akinyemi RO, Sarfo FS, Akinyemi J, Singh A, Onoja M, Akpalu A et al. Knowledge, attitudes and practices of West Africans on Genetic Studies on Stroke: Evidence from the SIREN study. *International Journal of Stroke*. 2018.
88. Loglo AD, Frimpong M, Duah MS, **Sarfo FS**, Sarpong FN, Agbavor B, et al. IFN-G and IL-5 whole blood response directed against mycolactone polyletide synthase domains in patients with Mycobacterium ulcerans infection. *Peer J Inc*. 2018;e5294.
89. Sarfo-Kantanka O, **Sarfo FS**, Ansah EO, Kyei I. Graves Disease in Central Ghana: Clinical characteristics and associated factors. *Clin Med Insights Endocrinol Diabetes*. 2018.
90. Villa Giovanni, Phillips Richard, Smith Colette, Stockdale Alexander, Ruggiero Alessandra, Beloukas Apostolos, Appiah Lambert, Chadwick David, **Sarfo Fred**, Geretti, Anna Maria. Drug resistance outcomes of long-term antiretroviral therapy (ART) with tenofovir disoproxil fumarate in the absence of virological monitoring. *Journal of Antimicrobial Chemotherapy*. 2018.
91. Villa G, Phillips RO, Smith C, Stockdale AJ, Beloukas A, Appiah LT, Chadwick D, Ruggiero A, **Sarfo FS**, et al. Renal health after long-term exposure to tenofovir disoproxil fumarate (TDF) in HIV/HBV positive adults in Ghana. *J Infect*. 2018 Apr 24. pii: S0163-4453(18)30084-7.
92. Akinyemi RO, Akinwande K, Diala S, Adeleye O, Ajose A, Issa K, Owusu D, Boamah I, Yahaya IS, Jimoh AO, Imoh L, Fakunle G, Akpalu A, **Sarfo F**, et al. Biobanking in a challenging African environment: unique experience from the SIREN project. *Biopreserv Biobank*. 2018;16(3):217-232
93. Owolabi M, Ojagbemi A, Kalaria R, Sarfo FS, Akinyemi R. Behavioural and cognitive effects of cerebrovascular diseases. *Behav Neurol*. 2018;7516032
94. Osei Sarfo-Kantanka, **Sarfo FS**, Ishmael Kyei and Eunice Operebea Ansah. The Effect of thyroid dysfunction on the Cardiovascular Risk of Type 2 Diabetes Mellitus Patients in Ghana. *J Diabetes Res* 2018;2018:4783093.
95. **Sarfo FS**, Adamu S, Awuah D, Sarfo-Kantanka O, Ovbiagele B. Potential role of tele-rehabilitation to address barriers to implementation of physical therapy among West African stroke survivors: A cross-sectional survey. *J Neurol Sci*. 2017; 381:203-208.
96. **Sarfo FS**, Ovbiagele B. Response by Sarfo and Ovbiagele to letter regarding "potential role of tele-rehabilitation to address barriers to implementation of



physical therapy among West African stroke survivors: A cross-sectional survey". *J Neurol Sci.* 2017; 382:162-163.

97. **Sarfo FS**, Owusu D, Adamu S, Awuah D, Appiah L, Amamoo M, et al. Plasma Glial Fibrillary Acidic Protein, Copeptin, and Matrix Metalloproteinase-9 concentrations among West African Stroke subjects compared with stroke-free controls. *J Stroke Cerebrovasc Dis.* 2018; 27(3):633-644.
98. Mobula LM, **Sarfo S**, Arthur L, Burnham G, Plange-Rhule J, Ansong D, et al. A multi-center prospective cohort study to evaluate the effect of differential pricing and health systems strengthening on access to medicines and management of hypertension and diabetes in Ghana: A study protocol. *Gates Open Research*; 2018;2
99. Akinyemi R, Tiwari HK, Arnett DK, Ovbiagele B, Irvin MR, Wahab K, **Sarfo F**, et al. APOL-1, CDKN2A/CDKN2B, and HDAC9 polymorphisms and small vessel ischemic stroke. *Acta Neurol Scand.* 2018;137(1):133-141.
100. **Sarfo FS**, Adamu S, Awuah D, Ovbiagele B. Tele-neurology in Sub-Saharan Africa: a systematic review of the literature. *Journal of the Neurological Sciences* 2017;380:196-199
101. **Sarfo FS**, Jenkins C, Singh A, Owolabi M, Ojagbemi A, Adusei N, Saulson R, Ovbiagele B. Post-stroke depression in Ghana: characteristics and correlates. *Journal of the Neurological Sciences* 2017;379:261-265.
102. **Sarfo FS**, Akassi J, Adamu S, Obese V, Ovbiagele B. Burden and predictors of vascular cognitive impairment among long-term Ghanaian stroke survivors. *Journal of Stroke and Cerebrovascular Diseases* 2017;26(11):2553-2562.
103. **Sarfo FS**, Ovbiagele B. Stroke minimization through additive anti-atherosclerotic agents in routine treatment (SMAART): A pilot trial concept for improving stroke outcomes in sub-Saharan Africa. *Journal of the Neurological Sciences* 2017;377: 167-173.
104. **Sarfo FS**, Nichols M, Qanungo S, Teklehaimanot A, Singh A, Mensah N, et al. Stroke-related stigma among West Africans: Patterns and predictors. *Journal of Neurological Sciences* 2017;375: 270-274.
105. **Sarfo FS**, Jenkins C, Mensah NA, Saulson R, Sarfo-Kantanka O, Singh A, et al. Prevalence and Predictors of sleep apnea risk among Ghanaian Stroke survivors. *J Stroke Cerebrovasc Dis.* 2017;26(7):1602-1608.
106. Geretti AM, King S, Adjei-Asante K, Appiah LT, Owusu DO, **Sarfo FS**, et al. Hepatitis C Virus (HCV) RNA screening and sequencing using dry plasma spots. *J Clin Virol.* 2017;97:18-21.
107. Appiah LT, **Sarfo FS**, Agyemang C, Tweneboah HO, Appiah NABA, Bedu-Addo G, et al. Current trends in admissions and outcomes of cardiac diseases in Ghana. *Clin Cardiol.* 2017;40(10):783-788.
108. Sarfo-Kantanka O, **Sarfo FS**, Kyei I, Oparebea Ansah. Thyroid disorders in Central Ghana: The influence of 20 years of iodization. *Journal of Thyroid Research* 2017.2017:7843972.
109. Owolabi M, Ogbale G, Akinyemi R, Salaam K, Akpa O, Mongkolwat P, Omisore A, Agunloye A, Efidi R, Odo J, Makanjuola A, Akpalu A, **Sarfo F**, et al. Development and Reliability of a User-Friendly multicenter Phenotyping application for hemorrhagic and ischemic stroke. *J Stroke Cerebrovasc Dis.*

**2017;26(11):2662-2670.**

110. Akinyemi R, Arnett DK, Tiwari HK, Ovbiagele B, **Sarfo F**, et al. Interleukin-6 (IL-6) rs 1800796 and cyclin dependent kinase inhibitor (CDKN2A/CDKN2B) rs2383207 are associated with ischemic stroke in indigenous West African men. **Journal of Neurological Sciences** **2017;379:229-235.**
111. Nichols, M., **Sarfo, F.S.**, Singh, A., Qanungo, S., Treiber, F., Ovbiagele, B., Saulson, R., Patel, S., & Jenkins, C. Assessing mobile health capacity and task-shifting strategies to improve hypertension among Ghanaian stroke survivors. **The American Journal of the Medical Sciences**. 2017;354(6):573-580.
112. Ojagbemi A, Owolabi M, Akinyemi R, Arulogun O, Akinyemi J, Okpa O, **Sarfo FS**, et al. Prevalence and predictors of anxiety in an African sample of recent stroke survivors. *Acta Neurol Scand* 2017;1-7.
113. Mayowa Owolabi, **Sarfo FS**, Virginia J. Howard, Marguerite R Irvin, Mulugeta Gebregziabher, Rufus Akinyemi, et al. for the SIREN-REGARDS Collaboration. Stroke in Indigenous Africans, African Americans and European Americans: Interplay of racial and geographic factors. **Stroke**. **2017;48(5):1169-1175.**
114. Adeoye AM, Ogah OS, Ovbiagele B, Akinyemi R, Shidali V, Agyekum F, Aje A, Adebayo O, Akinyemi JO, Kolo P, Appiah LT, Iheonye H, Kelechukwu U, Ganiyu A, Olunuga TO, Akpa O, Olagoke OO, **Sarfo FS**, et al. SIREN Team as part of the H3Africa Consortium. Prevalence and Prognostic features of ECG abnormalities in acute stroke: findings from the SIREN Study among Africans. *Glob Heart*. 2017;12(2):99-105.
115. Sarfo-Kantanka O, **Sarfo FS**, Ansah EO, Kyei I. Spectrum of endocrine disorders in central Ghana. *Int J Endocrinol*. 2017;2017:5470731.
116. **Sarfo FS**, Adu Gyamfi R, Adamu S, Sarfo-Kantanka O, Owolabi M, Ovbiagele B. Administration of a pictorial questionnaire to screen for stroke among patients with hypertension or diabetes in rural Ghana. *Journal of Neurological Sciences* 2017;373:289-294.
117. **Sarfo FS**, Ovbiagele B, Akassi J, Kyem G. Baseline prescription and one-year persistence of secondary prevention drugs after an index stroke in Central Ghana. **eNeurologicalSci** 2017;6:68-73.
118. **Sarfo FS**, Ovbiagele B. Mobile Health for Stroke: A promising concept for research and practice. **mHealth** 2017,3:4.
119. **Sarfo FS**, Kyem G, Ovbiagele B, Akassi J, Sarfo-Kantanka O, Agyei M, Badu E, Adusei Mensah N. One-year rates and determinants of post-stroke systolic blood pressure control among Ghanaians. **J Stroke Cerebrovasc Dis**. 2017 Jan;26(1): 78-86.
120. Sarfo-Kantanka O, **Sarfo FS**, Ansah EO, Yorke E, Akpalu J, Nkum BC, et al. Frequency and determinants of thyroid autoimmunity in Ghanaian type 2 diabetes patients: a case-control study. **BMC Endocr Disord**. 2017 Jan 17;17(1):2.
121. Adeoye AM, Ovbiagele B, Kolo P, Appiah L, Aje A, Adebayo O, **Sarfo F**, et al. Exploring overlap between the genomic and environmental determinants of LVH and stroke: A multicenter study in West Africa. *Glob Heart*. 2017;12(2):99-105.

122. Peprah M, Frimpong M, Beissner M, Laing K, Sarpong F, Loglo A, Abass M, **Sarfo F**, et al. Clearance of viable Mycobacterium ulcerans from Buruli ulcer lesions during antibiotic treatment as determined by combined 16S rRNA reverse transcriptase/IS 2404 qPCR assay. *PLoS Negl Trop Dis*. **2017;11(7):e0005695**.
123. Singh A, Jenkins C, Calys-Tagoe B, Arulogun OS, **Sarfo S**, Ovbiagele B, Akpalu A, Melikam S, Uvere E, Owolabi MO, SIREN Team. Stroke Investigative Research and Education Network: Public Outreach and Engagement. *Journal of Community Med & Health Educ*, **2017;7:518**.
124. **Sarfo FS**, Treiber F, Jenkins C, Patel S, Gebregziabher M, Singh A, Sarfo-Kantanka O, Saulson R, et al. Phone-based Intervention under Nurse Guidance after Stroke (PINGS): study protocol for a randomized controlled trial. *Trials*. 2016; Sep 5; 17(1):436.
125. **Sarfo FS**, Gebregziabher M, Ovbiagele B, Akinyemi R, Owolabi L, Obiako R, Armstrong K, Arulogun O, Akpalu A, Melikam S, Saulson R, Jenkins C, Owolabi M; SIREN. Validation of the 8-item questionnaire for verifying stroke free status with and without pictograms in three West African languages. *eNeurologicalSci*. 2016; 3:75-79.
126. **Sarfo FS**, Akassi J, Badu E, Okorozo A, Ovbiagele B, Akpalu A. Profile of neurological disorders in an adult neurology clinic in Kumasi, Ghana. *eNeurologicalSci*. 2016; 3:69-74.
127. **Sarfo FS**, Sarfo MA, Chadwick DR. Incidence and risk factors for neuropsychiatric events among Ghanaian HIV patients on long-term non-nucleoside reverse transcriptase inhibitor-based therapy. *eNeuroSci* **2016**; 3:21-25.
128. Sarfo-Kantanka O, **Sarfo FS**, Oparebea Ansah E, Eghan B, Ayisi-Boateng NK, Acheamfour-Akokuah E. Secular trends in admissions and mortality rates from diabetes mellitus in the central belt of Ghana: a 31-year review. *PLoS One*. 2016;11(11):e0165905.
129. Frimpong M, **Sarfo FS**, Duah MS, Wansbrough-Jones M, Phillips RO. Buruli ulcer: wound care and rehabilitation. *Chronic Wound Care Management and Research* 2016.
130. Mueller-Using S, Feldt T, **Sarfo FS**, Eberhardt KA. Factors associated with performing tuberculosis screening of HIV-positive patients in Ghana: LASSO-based predictor selection in a large public health data set. *BMC Public Health* 2016;16:563.
131. Chachage M, Osei Kuffour E, Haase K,...**Sarfo FS**, et al. CD25+FoxP3+ memory CD4 T cells are frequent targets of HIV infection in vivo. *Journal of virology* **2016;90(20):8954-67**.
132. Stockdale AJ, Phillips RO, Geretti AM, **HEPIK Study Group**. The gamma-glutamyl transpeptidase to platelet ratio (GPR) shows poor correlation with transient elastography measurements of liver fibrosis in HIV-positive patients with chronic hepatitis B in West Africa. Response to: 'The gamma-glutamyl transpeptidase to platelet ratio (GPR) predicts significant liver fibrosis and cirrhosis in patients with chronic HBV in West Africa' by Lemoine et al. *Gut*. **2016 Jan 4. Pii:gutjnl-2015-311133**.
133. **Sarfo FS**, Mulugeta Gebregziabher, Bruce Ovbiagele, Rufus Akinyemi, Lukman Owolabi, Reginald Obiako, Onoja Akpa, Kevin Armstrong, Albert Akpalu et al. Multilingual Validation of the Questionnaire for Verifying Stroke-

Free Status in West Africa. **Stroke**. 2016 Jan; 47(1):167-172.

134. **Sarfo FS**, Awuah DO, Nkyi C, Akassi J, Opare-Sem OK, Ovbiagele B. Recent patterns and predictors of neurological mortality among hospitalized patients in Central Ghana. **Journal of the Neurological Sciences** 2016; 363:217-224.
135. **Sarfo FS**, Akassi J, Awuah D, Adamu S, Nkyi C, Owolabi M, Ovbiagele B. Trends in Stroke admission & mortality rates from 1983 to 2013 in Central Ghana. [J Neurol Sci](#). 2015 Oct 15;357(1-2):240-5.
136. **Sarfo FS**, Phillips RO, Wansbrough-Jones M, Simmonds R. Recent advances: Role of mycolactone in the pathogenesis and monitoring of Mycobacterium ulcerans infection/Buruli ulcer disease. **Cell Microbiol**. 2016 Jan;18(1):17-29.
137. David Chadwick, **Sarfo F**, Elaine Kirk, Victoria Parris, George Bedu-Addo, Dorcas Owusu, et al. Tenofovir is associated with increased tubular proteinuria and asymptomatic renal tubular dysfunction in Ghana. **BMC Nephrology**. 2015;16:195.
138. Fatoumata N, **Sarfo FS**, Frimpong M, Guenin-Mace L, Wansbrough-Jones M, Stinear T, Phillips RO, Demangel C. Metabolomic profiles delineate mycolactone signature in Buruli ulcer disease. **Scientific Reports** 2015;5:17693.
139. **Sarfo FS**, Eberhardt KA, Dompreeh A, Kuffour EO, Soltau M, Schachscheider M, Drexler JF, et al. Helicobacter pylori infection is associated with higher CD4 T cell counts and lower HIV-1 viral loads in ART-naïve HIV-positive patients in Ghana. **PLoS One**. 2015 Nov 24;10(11):e0143388. doi: 10.1371/journal.pone.0143388.
140. Marcus Beissner, Richard Odame Phillips; Florian Battke; Malkin Bauer; Kossi Badziklou; **Fred Stephen Sarfo** et al. Loop-mediated isothermal amplification for laboratory confirmation of Buruli ulcer disease-towards a point-of-care test. **PLoS Negl Trop Dis**. 2015 Nov 13;9(11):e0004219. doi: 10.1371/journal.pntd.0004219.
141. Forbi JC, Layden JE, Phillips RO, Guo-lian X, Mora N, Campo DS, Purdy MA, Dimitrova ZE, Owusu D, Punkova LT, Skums P, Owusu-Ofori S, **Sarfo FS**, et al. Next-generation sequencing reveals frequent opportunities for exposure to hepatitis C virus in Ghana. **PLoS ONE** 2015;10(12):e0145530.
142. Jenkins, Carolyn; Arulogun, Oyedunni Sola; Singh, Arti; Mande, Aliyu Tagoe; Ajayi, Eric; Benedict, Calys Tagoe; Ovbiagele, Bruce; Lackland, Daniel T; **Sarfo, Fred Stephen** et al. Stroke Investigative Research and Education Network: Community Engagement and Outreach within Phenomics Core. **Health Education & Behaviour** 2016;43(1 Suppl):82S-92S.
143. Eberhardt KA, **Sarfo FS**, Dompreeh A, Osei Kuffour E, Geldmacher C, Soltau M, et al. Helicobacter pylori co-infection is associated with decreased markers of immune activation in ART-naïve HIV-positive and in HIV-negative individuals in Ghana. **Clin Infect Dis**. 2015 Nov 15;61(10):1615-23.
144. Akpalu A, **Sarfo FS**, Ovbiagele B, Akinyemi R, Gebregziabher M, Obiako R, et al. Phenotyping Stroke in sub-Saharan Africa: Stroke Investigative Research and Educational Network (SIREN) Phenomics Protocol. **Neuroepidemiology**. 2015;45(2):73-82.
145. **Sarfo FS**, Akassi J, Boa Antwi NK, Obese V, Adamu S, Akpalu A, Bedu-Addo G. Highly prevalent hyperuricaemia is associated with adverse

clinical outcomes among Ghanaian stroke patients: an observational prospective study. **Ghana Med J.** 2015;49(3):165-72.

146. Akinyemi RO, Ovbiagele B, Akpalu A, Jenkins C, Sagoe K, Owolabi L, **Sarfo F**, SIREN investigators. Stroke genomics in people of African ancestry: charting new paths. **Cardiovasc J Afr.** 2015; 26: S39-S49.
147. Owolabi MO, Akarolo-Anthony S, Akinyemi R, Arnett D, Gebregziabher M, Jenkins C, Tiwari H, Arulogun O, Akaplu A, **Sarfo FS**, H3Africa Consortium. The burden of stroke in Africa: a glance at the present and a glimpse into the future. **Cardiovasc J Afr.** 2015; 26:S27-S38.
148. Frimpong M, Sarpong-Duah M, Beissner M, **Sarfo FS**, Loglo AD, Tannor E, Awuah NY, Frempong M, Adjei O, Wansbrough-Jones M, Bretzel G, Phillips RO. Microscopy for acid fast bacilli: A useful but Neglected tool in routine laboratory diagnosis of Buruli ulcer. **J Trop Dis** 3:158.
149. Stockdale AJ, Phillips RO, Belokukas A, Appiah LT, Chadwick D, Bhagani S, Bonnett L, **Sarfo FS**, et al. Liver fibrosis by transient elastography and virologic outcomes after introduction of tenofovir in lamivudine-experienced adults with HIV and hepatitis B virus (HBV) co-infection in Ghana. **Clin Infect Dis.** 2015 Sep 15;61(6):883-91.
150. **Sarfo FS**, Sarfo MA, Norman B, Phillips R, Bedu-Addo G, Chadwick D. Risk of deaths, AIDS-defining and non-AIDS defining events among Ghanaians on long-term antiretroviral therapy. **PLoS ONE.** 2014; 9(10) e111400.
151. Layden JE, Phillips RO, Owusu-Ofori S, **Sarfo FS**, Kliethermes S, Mora Nallely, Owusu D, Nelson K, Opere-Sem O, Dugas L, Luke A, Shoham D, Forbi JC, Khudyakov YE, Cooper RS. High frequency of active HCV infection among seropositives in West Africa and evidence for multiple transmission pathways. **Clin. Infect. Dis.** 2015; 60(7): 1033-41.
152. Phillips RO, Phanzu DM, Beisnner M, Badziklou K, Luzolo EK, **Sarfo FS**, Halatoko WA, Amoako Y, Frimpong M, Kabiru AM, et al., Effectiveness of routine BCG vaccination on Buruli Ulcer Disease: a case-control study in the Democratic Republic of Congo, Ghana and Togo. **PLoS Negl Trop Dis.** 2015; 9(1): e3457.
153. King S, Adjei-Asante K, Appiah L, Adinku D, Beloukas A, Atkins M, **Sarfo FS**, Chadwick D, Phillips RO, Geretti AM. Antibody screening tests variably overestimate the prevalence of hepatitis C virus infection among HIV-infected adults in Ghana. **J Viral Hepat.** 2015; 22(5): 461-8.
154. Phillips R, **Sarfo F**, Abass K, Frimpong M, Ampadu E, Forson M, Ampem-Amoako Y, Thompson W, Kingsley, Asiedu KB, and Wansbrough-Jones M. Reply to "Compliance with Antimicrobial Therapy for Buruli Ulcer". **Antimicrob Agents Chemother.** 2014; 58 (10): 6341.
155. Abass K, van der Werf T, Phillips R, **Sarfo FS**, Abotsi J, Mireku S, Thompson William, Asiedu K, Stienstra Y, Klis SA. Buruli ulcer control in a highly endemic district in Ghana: role of community-based surveillance volunteers. **Am J Trop Med Hyg.** 2015; 92 (1): 115-7.
156. The H3 Africa Consortium\*. Enabling the genomic revolution in Africa. **Science** 2014 Jun 20;344 (6190):1346-1348.
157. **Sarfo FS**, Sarfo MA, Norman B, Phillips R, Chadwick D. Incidence and determinants of nevirapine and efavirenz-related skin rashes in West Africans:

Nevirapine's epitaph? **PLoS One.** 2014 Apr 11;9(4):e94854.

158. Sarfo FS, Kassim A, Phillips R, Geretti AM, Chadwick DR. Long-term responses to first-line antiretroviral therapy in HIV and hepatitis B co-infection in Ghana. **J Infection** 2014; 69(5):481-9.
159. Cilia R, Akpalu A, Sarfo FS, Cham M, Amboni M, Cereda E, Fabbri M, Patrick A, Akassi J, Bonetti A, Pezzoli G. The Modern pre-Levodoap Era of Parkinson's Disease: Insights into Motor Complications from sub-Saharan Africa. **Brain** 2014; 137 (Pt 10): 2731-42.
160. Sarfo FS, Phillips RO, Zhang J, Abass MK, Abotsi J, Amoako YA, Adu-Sarkodie Y, Robinson C, Wansbrough-Jones MH. Kinetics of mycolactone in human subcutaneous tissue during antibiotic therapy for *Mycobacterium ulcerans* disease. **BMC Infect Dis.** 2014 Apr 15;14:202.
161. Phillips RO, Sarfo FS, Landier J, Oldenburg R, Wansbrough-Jones M, Kabiru A, Thompson W, Forson M, Fontanet A, Fatoumata N, Demangel C. Combined inflammatory and metabolic defects reflected by reduced serum protein levels in patients with Buruli ulcer disease. **PLoS Negl Trop Dis.** 2014 Apr 10;8(4):e2786.
162. Phillips RO, Frimpong M, Sarfo FS, Birte Kretschmer, Marcus Beissner, Amoako Y, Debrah A, Abass K M, Thompson W, Sarpong Duah M, Ohene-Adjei, Fleischer B, Bretzel G, Wansbrough-Jones M, Jacobssen M. Co-infection with *Mycobacterium ulcerans* and *Mansonella perstans* among Buruli ulcers in Ghana. **Emerg Infect Dis.** 2014 Jun;20(6):1000-3.
163. Sarfo FS, Thompson W, Phillips RO, Paintsil A, Abass MK, Frimpong M, Abotsi J, Kingsley A, Wansbrough-Jones MH. A Severe Case of Buruli Ulcer Disease with Pleural Effusions. **PLoS Negl Trop Dis.** 2014; 8(6): e2868.
164. Moritz Jansson, Marcus Beissner, Richard Phillips, Kossi Badziklou, Ebekalisai Piten, Issaka Maman, Sarfo FS, Kristina Huber, Agata Rhomberg, Dominik Symank, Magdalena Wagner, Franz Wiedemann, Jörg Nitschke, Abiba Banla Kere, Karl-Heinz Herbinger, Ohene Adjei, Thomas Löscher, and Gisela Bretzel. Molecular Determination of Rifampicin Resistance in Clinical Samples of Patients with Buruli Ulcer Disease: A Comparison of two Assays. **J Clin Microbiol.** 2014 Apr;52(4):1246-9.
165. Williamson HR, Phillips R, Sarfo S, Wansbrough-Jones M, Small PLC. Genetic diversity of PCR-positive, culture-negative and culture-positive *Mycobacterium ulcerans* isolated from Buruli ulcer patients in Ghana. **PLoS ONE** 9(2): e88007
166. Sandor K, van der Werf TS, Phillips RO, Sarfo FS, Wansbrough-Jones M, Stienstra Y. Oral treatment for patients with Buruli ulcer co-infection with HIV: think twice. **AIDS** 2014; 28(5): 797-8.
167. Phillips RO, Sarfo FS, Abass MK, Abotsi J, Tuah W, Forson M, Amoako YA, Thompson W, Asiedu K, Wansbrough-Jones M: Clinical and bacteriological efficacy of combination of rifampicin and streptomycin for 2 weeks followed by rifampicin and clarithromycin for 6 weeks for treatment of *Mycobacterium ulcerans* disease. **Antimicrob Agents Chemother.** 2014 Feb;58(2):1161-6. doi: 10.1128/AAC.02165-13. Epub 2013 Dec 9. Erratum in: **Antimicrob Agents Chemother.** 2014 Apr;58(4):2488.

168. Kollie K, Amoako YA, Ake J, Mulbah T, Zaizay F, Abass M, Lehman L, Paintsil A, **Sarfo F**, Lugala C, Tiendrebeogo A, Phillips R, Asiedu K. Buruli ulcer in Liberia, 2012. **Emerg Infect Dis.** 2014 Mar; **20(3): 494-6.**
169. **Sarfo FS**, Sarfo MA, Kasim A, Phillips R, Booth M, Chadwick D. Long-term effectiveness of first-line non-nucleoside reverse transcriptase inhibitor (NNRTI)-based antiretroviral therapy in Ghana. **J Antimicrob Chemother.** 2014;**69(1):254-61.**
170. **Sarfo FS**, Zhang Y, Egan D, Tetteh LA, Phillips R, Bedu-Addo G, Sarfo MA, Khoo S, Owen A, Chadwick D. Pharmacogenetic associations with plasma efavirenz concentrations and clinical correlates in a retrospective cohort of Ghanaian HIV-infected patients. **J Antimicrob Chemother.** 2014;**69(2):491-9.**
171. **Sarfo FS**, Acheampong JW, Tetteh LA, Oparebea E, Akpalu A, Bedu-Addo G. The profile of risk factors and in-patient outcomes of stroke in Kumasi, Ghana. **Ghana Med J.** 2014; **48 (3): 127-34.**
172. Feldt T, **Sarfo FS**, Zoufaly A, Phillips RO, Burchard G, van Lunzen J, Jochum J, Chadwick D, Awasom C, Claussen L, Drosten C, Drexler JF, Elshubinger AM. Hepatitis E virus infections in HIV-infected patients in Ghana and Cameroun. **J Clin Virol.** 2013 Sep;**58(1):18-23.**
173. **Sarfo FS**, Keegan R, Appiah L, Shakoor S, Phillips R, Norman B, Hardy Y, Bedu-Addo G, Longstaff L, Chadwick DR. High prevalence of renal dysfunction and association with risk of death amongst HIV-infected Ghanaians. **J Infect.** 2013 Jul; **67(1):43-50.**
174. **Sarfo FS**, Converse PJ, Almeida DV, Zhang J, Robinson C, Wansbrough-Jones M, Grosset JH. Microbiological, Histological, Immunological, and Toxin Response to Antibiotic Treatment in the Mouse Model of *Mycobacterium ulcerans* Disease. **PLoS Negl Trop Dis.** 2013; **7(3): e2101.**
175. Chadwick D, Stanley A, **Sarfo S**, Appiah L, Ankron M, Foster G, Schwab U, Phillips R, Geretti AM. Response to antiretroviral therapy in occult hepatitis B and HIV co-infection in West Africa. **AIDS.** 2013 Jan **27(1):139-41.**
176. Chadwick D, Ankron M, **Sarfo FS**, Phillips R, Fox Z, Garcia A, Appiah L, Bedu-Addo G, Geretti AM. Outcomes of starting first-line antiretroviral therapy in hepatitis B virus/HIV-coinfected patients in Ghana. **J Antimicrob Chemother** 2012 Dec;**67(12):2939-42.**
177. Mamoojee Y, Tan G, Gittins S, **Sarfo FS**, Stephenson L, Carrington D, Bedu-Addo G, Phillips R, Appiah LT, Chadwick D. Diagnosis of treponemal co-infection in HIV-infected West Africans. **Trop Med Int Health.** 2012 Sep **20.** Doi: 10.1111/j.1365-3156.2012.03090.x.
178. Beissner M, Symank D, Phillips RO, Amoako YA, Awua-Boateng NY, **Sarfo FS**, Jansson M, Huber KL, Herbinger KH, Battke F, Loscher T, Ohene Adjei, Bretzel G. Detection of viable *Mycobacterium ulcerans* in clinical samples by a novel combined 16S rRNA reverse transcriptase/IS2404 real-time qPCR assay. **PLoS Negl Trop Dis.** 2012; **6(8): e1756.**
179. **Sarfo FS**, Le Chevalier F, Aka N, Phillips RO, Amoako Y, Boneca IG, Lenormand P, Dosso M, Wansbrough-Jones M, Veyron-Churlet R, Guenin-Mace L, Demangel C. Mycolactone diffuses into the peripheral blood of Buruli ulcer patients-Implications for Diagnosis and Disease Monitoring. **PLoS Negl**

**Trop Dis. 2011 Jul; 5(7):e1237.**

- 180.** Sarfo FS, Lavender CJ, Fyfe JAM, Johnson PDR, Stinear TP, Phillips R. *Mycobacterium ulcerans* DNA not detected in faecal samples from Buruli ulcer patients: results from a pilot study. **PLoS One. 2011 May 4; 6(5): e19611.**
- 181.** Cilia R, Sironi F, Akpalu A, Cham M, Sarfo FS, Brambilla T, Bonetti A, Amboni M, Goldwurm S, Pezzoli G. Screening LRRK2 gene mutations in patients with Parkinson's disease in Ghana. **J Neurol. 2012 Mar;259(3):569-70.**
- 182.** Mamoojee Y, Shakoore S, Garton RL, Sarfo FS, Appiah LT, Norman B, Balakrishnan I, Phillips R, Chadwick D. Low seroprevalence of cryptococcal antigenaemia in patients with advanced HIV infection enrolling in an antiretroviral programme in Ghana. **Trop Med Int Health. 2011 Jan;16(1): 53-56.**
- 183.** Geretti AM, Patel M, Sarfo FS, Chadwick D, Verheyen J, Fraune M, Garcia A, Phillips R. Detection of highly prevalent hepatitis B virus coinfection among HIV-seropositive persons in Ghana. **J Clin Microbiol. 2010 Sep; 48(9): 3223-30.**
- 184.** Sarfo FS, Phillips R, Asiedu KB, Ampadu E, Bobi N, Adentwe E, Lartey A, Tetteh I, Wansbrough-Jones M. Clinical efficacy of combination of rifampin and streptomycin for the treatment of *Mycobacterium ulcerans* disease. **Antimicrob Agents Chemother. 2010 Sep;54(9):3678-3685.**
- 185.** Sarfo FS, Phillips RO, Rangers B, Mahrous EA, Lee RE, Tarelli E, Asiedu KB, Small PL, Wansbrough-Jones MH. Detection of Mycolactone A/B in *Mycobacterium ulcerans* -infected Human Tissue. **PLoS Negl Trop Dis. 2010 Jan 5;4(1): e577.**
- 186.** Sarfo FS, Bibby DF, Schwab U, Tetteh LA, Clark DA, Collini P, Phillips R, Green I, Dittmar MT, Chadwick D. Inadvertent Non-nucleoside reverse transcriptase inhibitor based Anti-Retroviral Therapy in dual HIV 1 / 2 and HIV-2 seropositive West Africans: a retrospective study. **J. Antimicrob. Chemother 2009 Sep 64(3): 667-9.**
- 187.** Phillips R, Sarfo FS, Guenin-Mace L, Decalf J, Wansbrough-Jones M, Albert ML, Demangel C. Immunosuppressive signature of cutaneous *Mycobacterium ulcerans* infection in the peripheral blood of buruli ulcer patients. **J Infect Dis. 2009 Dec 1;200(11):1675-84.**
- 188.** Appiah L, Havers F, Gibson J, Kay M, Sarfo FS, Chadwick D. Efficacy and acceptability of rapid, point-of-care HIV testing in two clinical settings in Ghana. **AIDS Patient Care and STD's, 2009 May; 23 (5): 365-9.**
- 189.** Phillips RO, Sarfo FS, Osei-Sarpong F, Boateng A, Tetteh I, Lartey A, Adentwe E, Opare W, Asiedu KB, Wansbrough-Jones M. Sensitivity of PCR for *Mycobacterium ulcerans* by use of fine-needle aspirates for diagnosis of Buruli Ulcer. **Clin Microbiol. 2009 Apr: 47 (4): 924-6**
- 190.** Collini P, Schwab U, Sarfo FS, Obeng-Baah J, Norman B, Chadwick D, Bibby D, Bedu-Addo G. Sustained Immunological responses to HAART at 36 months in Ghanaian HIV cohort. **Clin. Infect. Dis. 2009; Apr 1: 48(7): 988-91.**
- 191.** Sarfo FS, Phillips RO, Ampadu E, Sarpong F, Adentwe E, Wansbrough-Jones M. Dynamics of the cytokine response to *Mycobacterium ulcerans* during antibiotic treatment for *M. ulcerans* disease (Buruli ulcer) in humans. **Clinical and Vaccine Immunology 2009,p.61-65.**
- 192.** Phillips R, Horsfield C, Kuijper S, Sarfo FS, Obeng-Baah J, Etuafu S, Ny



B, Awuah P, Nyarko KM, Osei-Sarpong F, Lucas S, Kolk AHJ and Wansbrough-J  
 Cytokine response to antigen stimulation of whole blood from patient  
*Mycobacterium ulcerans* disease compared to that from patients with tuberculo  
**Vaccine Immunol 2006;13(2):253-7.**

**Professional memberships**

- West African College of Physicians – **Primaries** 2006
- Member West Africa College of Physicians - **MWACP** 2008
- Fellow West Africa College of Physicians- **FWACP** 2010
- Doctor of Philosophy (Durham University, UK)- **PhD** 2013
- Doctor of Philosophy (KNUST, UK) – **PhD** 2014
- Ghana Medical Association

**Awards**

- 1. Best Doctor Award 2010, Specialist Category
- 2. Best Lecturer in Medicine 2015
- 3. Bruce Schonberg's Award for International Neuroepidemiology, by the American Academy of Neurology, 2018
- 4. Best Senior Member (Research & Scholarship), KNUST, 2018.

**Stroke Prevention**

- Commissioner for Ghana's Stroke Prevention Initiative by the WHO-Lancet Commission 2017

**Press releases**

- <https://www.modernghana.com/news/813468/stroke-cases-on-the-increase.html>

**Research experience**

- Dr. Fred Stephen Sarfo is a researcher, a clinician and an educator. My research career began with work in *Mycobacterium ulcerans* disease in 2005. Working under the supervision of Dr. Richard Phillips I was trained in performing Polymerase chain reaction for diagnosis of Buruli ulcer, Enzyme linked immunoassays, extraction of RNA for translational studies and cell culture techniques. A unique feature of *M. ulcerans* disease is that the pathogen elaborates a lipid toxin called mycolactones- which is a crucial virulent factor. I have over the past 5 years optimized a technique to isolate this toxin from infected human skin tissues and sera for the first time opening up an avenue for a potential field-friendly diagnostic test for this neglected tropical disease. I have also experience in Buruli ulcer patient management with respect to case recruitment and detection, treating patients with antibiotics – Streptomycin and Rifampicin for 8 weeks and monitoring for clinical response and incidence of adverse side effects. In order to obviate the need for painful daily Streptomycin injections we are currently conducting a *randomized controlled trial* to compare an oral regime of Clarithromycin-Rifampicin combination versus Streptomycin-Rifampicin combination therapy for *M ulcerans* disease. I serve currently as Ghana's clinical coordinator on this WHO-sponsored study which is due to close in 2016.
- I am also involved in the care of HIV patients and in **HIV research** in collaboration with Dr. David Chadwick of the James Cook University Hospital, Middlesbrough from 2006 to date. Through our collaborations, I have set up a database of nearly 4500 patients who initiated antiretroviral therapy between 2003 to 2010 to answer questions on the long term clinical and immunological efficacy of first and second line therapy among Ghanaians. We are also prospectively examining the treatment responses of HIV-2 mono-infection and HIV-1/2 dually infected patients on antiretroviral therapy. Since 2008, I have been involved in setting up a database of Hepatitis B / HIV co-infected patients where nearly 500 co-infected patients have

been identified and under prospective follow up under the Hepatitis B in HIV Study in Kumasi (HEPIK). We have also performed sero-prevalence studies on HIV and hepatitis E co-infections among Ghanaians. Furthermore, in 2009 I led a study into the pharmaco-genetics of efavirenz metabolism where we investigated the impact of genetic polymorphisms in the cytochrome P450 2B6, 2A6 and UGT on the disposition of efavirenz among Ghanaians. Also in the same year, we conducted another study to evaluate the pharmaco-kinetic interactions between Artesunate and efavirenz- two commonly used drugs sharing common metabolic pathways with potential for interactions which. I am currently serving as a co-principal investigator on a study evaluating the impact of *H. pylori* co-infection on the immunological profile and progression of HIV disease in Ghanaian patients. I was the Principal Investigator of the recently completed Kumasi Cohort Study (KCS) which is a *randomized controlled trial* comparing the clinical outcomes of first line ART among 3,000 HIV patients monitored using viral loads vs routine monitoring without viral loads-Clinical trial ID: **NCT01853657**. In 20 co-authored peer-reviewed journal articles, I have shown that ART is effective and durable in resource-limited settings, that *adverse events were common* and that Non-AIDS events in particular CVDs may become important determinants of outcomes in the coming years.

- **Stroke care and Prevention:** Over the past 10 years, I have been involved in research into risk factors and outcomes of stroke in Kumasi, Ghana. Stroke has consistently remained the leading cause of admissions and deaths at the Komfo Anokye teaching Hospital. I have conducted studies investigating the factors influencing stroke outcomes including the emerging effect of serum uric acid on stroke among Ghanaians. The findings from my study were successfully presented as a dissertation in partial fulfillment of the requirements for a fellowship award from the West African College of Physicians. I have recently set up a neurology clinic at the Komfo Anokye Teaching Hospital since January 2011 serving the middle and northern sector of Ghana. Through collaborations with Dr. Roberto Cilia, a specialist in movement disorders from the Parkinson's Institute in Milan, Italy we are investigating the genetics of predisposition to Parkinson's disease. Our initial findings have been published recently in the Journal of Neurology. Following my fellowship examinations with the West African College of Physicians, I have set up a neurology out-patient clinic where we see at least 40 patients each week with referrals from the Ashanti, Brong Ahafo, Northern, Upper West and Upper East regions of Ghana.

I am currently involved as a site principal investigator of an NIH- funded protocol titled Stroke Investigative Research & Educational Network (SIREN). This is one of the largest studies on the African continent investigating the role of traditional and novel genetic determinants of stroke among people of African descent. This collaborative network has sites in Ghana, Nigeria, South Africa and also in the US. This study aims to bring the epidemic of stroke to the forefront and highlight the urgent need to tackle the vascular risk factors of stroke through public education on awareness of risk factors, lifestyle modifications and the rational use of chronic medications to ameliorate the increasing burden of stroke in Africa.

Dr. Sarfo is now the Principal Investigator of 3 on-going N.I.H.-funded grants in Kumasi, Ghana.

- Phone-based Intervention under Nurse Guidance after Stroke (PINGS),
- Evaluation of Vascular Event Risk while on Long-term Antiretroviral Suppressive Therapy (EVERLAST) study
- Stroke Minimization through Additive Anti-atherosclerotic Agents in Routine Treatment (SMAART) trial.

**Non-Communicable Diseases:** I served for 3 years 2014 to 2017 as the principal investigator for a pilot pragmatic trial aimed at testing whether differential pricing of medicines for hypertension and diabetes mellitus will improve disease control in Ghana. This study involved recruiting and following up for 18 months, 3,500 subjects with hypertension and diabetes from 5 hospitals in the northern, middle and southern belts of Ghana.

**International Presentations**

- International Brain Research Organisation: “Neurological Aspects of Infectious Diseases from Basic science to clinical implications” 15/10/2016
- Medical University of South Carolina Global Health Symposium: “ Creating Healthy Communities through Global Health Innovation and Partnership- Stroke in Sub-Saharan Africa”. 12/10/2016.

**References**

- Prof. Bruce Ovbiagele  
University of California, San Francisco  
USA.
- Dr. Albert Akpalu  
Korle Bu Teaching Hospital,  
PMB,  
Accra, Ghana
- Prof. G. Bedu-Addo  
Komfo Anokye Teaching Hospital  
P. O. Box 1934  
Kumasi, Ghana
- Prof. O. Opare-Sem  
Komfo Anokye Teaching Hospital  
P. O. Box 1934  
Kumasi, Ghana
- Dr. Richard Phillips  
Komfo Anokye Teaching Hospital  
P.O. BOX 1934  
Kumasi, Ghana
- Dr. David Chadwick  
Department of Infection and Travel Medicine  
The James Cook University Hospital  
Marton Road  
Middlesbrough TS4 3BW  
UK
- Dr. Mark Wansbrough-Jones  
St. George’s University of London  
London SW17 ORE, United Kingdom.