



**Prof Samuel Fosu Gyasi, BSC, MSC, PhD,
(Senior Lecturer/ Head of CeRAB)**

(a) Research Area:

Prof Samuel Fosu Gyasi, PhD is a Senior Lecturer and the Head of Department of Basic and Applied Biology. He holds a BSc in Biological Science, MSc in Environmental Science (Environmental Microbiology) and a PhD in Clinical Microbiology. He also has a background in Global Health research. His current area of research includes Diagnostics, Infectious Disease Control, Global Health, Water Sanitation and Hygiene and the application of environmental microbes to mitigate environmental degradation. His research interest includes Malaria, Buruli Ulcer, Schistosomiasis, Lymphatic Filariasis and SARS CoV-2 research, this he does through Mphil and PhD supervision. These included optimizing the esperanza window trap to monitor the transmission dynamics of river blindness in hypoendemic communities, biodegradation of organic solid waste using black

soldier Fly (*Hermetia illucens*) larvae, design of a filter system incorporating PCB-degrading bacteria for improvement of flue gas quality of hospital incinerators, valorization of organic solid waste larvae composting, assessing the potential of indigenous microbes in acid mine waters for biomining and bioremediation, Impact of shared sanitary toilets on candidiasis infection among females in Auchi community, Edo state Nigeria, Prevalence and intensity of malaria and schistosomiasis in some communities within the Bui dam environ, Investigate diarrheagenic microbes in drinking water: the implication of pathogenic *Escherichia coli* and *salmonella typhi* in Ghana etc.

He is currently a Site PI for a WHO/PATH funded dynamics of health utilization study within the context of RTSS Malaria Vaccine Implementation programme for Ghana, Kenya and Malawi. Malaria kills 2 children under 5 every 1 minute in sub-saharan Africa. The use of interventions like indoor residual spraying and insecticide treated nets has not been effective in controlling the disease. An effective introduction of the new RTSS malaria vaccine if successful will be the game changer. This project intends to assess feasibility of embedding the new RTSS malaria vaccine into the routine EPI of Ghana (Expanded Programme of Immunization). He has about 40 published papers in peer review journal to his credit.

(b) Education

- Cert; Introduction to Epidemiology in Global Health Research). (Uni. Of Washington) (2020)
- Cert. (Leadership and Management in Health) (Uni. Of Washington) (2020)
- Cert. (Health Systems Research) (Uni. Of Washington) (2020)
- PhD Microbiology (KNUST, 2013)
- MSc with Research Environmental Science (Environmental Health) (KNUST, 2004)
- BSc Biological Science. (KNUST, 2000)

(d) RESEARCH EXPERIENCE

Research conducted

1. Clinical, haematological and histopathological responses to arsenic toxicity in ICR mice using arsenic levels synonymous to Buruli Ulcer endemic communities in the Amansie West District of Ghana, **2012**.

2. Arsenic in water and soil: A possible contributory factor to *M. ulcerans* Infection in Buruli Ulcer Endemic Communities, **2011**.
3. Association of perceived risk factors to the development of Buruli Ulcer in the Amansie West Districts, **2011**.
4. Temporal relationships of environmental arsenic and *M. ulcerans* infections in the Amansie West District of Ghana, **2012**.
5. Susceptibility of arsenic exposed ICR mice to the development of Buruli Ulcer in the Amansie West District of Ghana, **2014**.
6. Environmental sanitation attitudes in Buruli Ulcer communities and its potential impacts in the Asanti Akim North District, Ghana, **2014**.
7. Microbial Quality of Sachet and bagged Drinking water: A case Study in Kumasi, Ghana.
8. Comparative analysis of environmental arsenic and other heavy metals in 2 Buruli Ulcer endemic districts in the Ashanti Region, Ghana, **2014**.
9. Faecal sludge management in low-income areas: a case study of three districts in the Ashanti region of Ghana, **2014**.
10. An Empirical Perspective of Water Quality in Appeadu: A suburb of Kumasi in the Ashanti Region, Ghana, **2014**.
11. Elucidating Microbial Pollution Markers of Drinking Water in Appiadu within the Ashanti Region of Ghana, **2014**.
12. Effect of Protozoa on Faecal Bacteria Removal in Macrophyte and Algal Waste Stabilization Ponds, **2014**.
13. Characterization and Management of Domestic Wastewater in 2 Suburbs of Kumasi, Ghana. Research Journal of environmental Science, **2014**.
14. Rainwater Harvesting as a Supplement to Domestic Water Supply: Case Study in Kotei-Ghana.
15. Atmospheric air pollution associated with macrophyte and algal-based wastewater stabilization ponds in Kumasi, Ghana, **2014**.

16. Microbial Impacts of Brewery Effluent Discharge on Sissa River: A Case Study of Kaase in Kumasi Ghana, **2014**.
17. Rainfall Variability and its Impact on Reported OPD Cases of *Salmonella Typhii* in Sunyani, Ghana, **2014**.
18. Assessing the Reporting System of Maternal Mortality: A Case Study of a Health Care Centre in the Asuogyaman District, Ghana, **2015**.
19. Maternal mortality, proteinuria and pregnancy induced hypertension: Case Study of a Regional Hospital in Brong Ahafo Region, Ghana, **2015**.
20. Assessing the efficiency of a waste Stabilization Pond: A case study of the Accra Metro Sewage Units waste treatment System at Lego, Ghana, **2015**.
21. Assessing the efficiency of a designed Prototype Macrophyte-Based Ponds in Treating Clinical Wastewater, **2016**.
22. Elucidating the energy demand and prototype design of a Biodigester System in Kantro in the Brong Ahafo Region, **2016**.
23. Investigating ground water quality at Adomako area in Sunyani within the Brong Ahafo Region of Ghana: The role of leachate at the Sunyani dump site, **2016**.
24. Assessing the occupational health hazards of some Hospital workers in relation to clinical waste management at the Brong Ahafo Regional Hospital, **2016**.
25. Elucidating some indicators of water pollution of selected drinking sachet water: A case study of Fiapre (UENR) Sunyani, **2016**.
26. Assessing solid waste management practices at the University of Energy and naural resources, sunyani, **2016**.
27. A Perspective Analysis of Dams and Water Quality: The Bui Power Project on the Black Volta, Ghana, **2018**.

28. A socio-economic analysis of different approaches to faecal sludge treatment in Sunyani, Ghana, 2018.
29. The Search for an Efficient Black Fly Trap for Xenomonitoring of Onchocerciasis, **2018**.
30. Ellucidating the incidence and the prevalence of Schistosomiasis spp infection in riparian communities of the Bui dam, **2019**.
31. Prevalence of Onchocerciasis and Associated Clinical Manifestations in Selected Hypoendemic Communities in Ghana following Long-Term Administration of Ivermectin, **2019**.
32. Biodegradation by composting of municipal organic solid waste into organic fertilizer using the black soldier fly (*Hermetia illucens*) (Diptera: Stratiomyidae) larvae, **2019**.
33. Behavioural Pattern on Medical Waste Management in 5 Hospitals in Ghana, **2020**.
34. Optimized Prototypes of the Ezperanza window Traps are effective as human landing Collectors in capturing host-seeking blackflies in a community of low vector density in Ghana, **2020**.
35. Microbial Contamination of Hand Dug Wells and Pit Latrines in Fiapre in the Sunyani, Ghana, **2017**.
36. Biting rates and relative abundance of Simulium flies under different climatic conditions in an onchocerciasis endemic community in Ghana, **2020**.
37. Water shortages and poor sanitation in senior high schools; the potential of greywater reuse as a mitigating measure, **2020**.
38. Antimicrobial and coagulation potential of *Moringa oleifera* powder coupled with sand filtration for treatment of bath wastewater from public senior high schools in Ghana, **2020**.
39. Factors Associated with patient compliance behaviour in a peri-urban diabetic clinic using A Mixed-Methods Approach, **2020**.

40. Pathogenic *Vibrio cholera* contaminated wastewater discharge into urban receiving waters in Ghana; the performance of a biological wastewater stabilization pond, **2020**.
41. Dynamics of health utilization study in the context of RTSS,S vaccine implantation, **2020**.
42. Assessing the Egg deposition behavior of female Black soldier fly (*Hermetia illucens*), in Kumasi, Ghana using MOSW, 2020

(e) PUBLICATION ARISING OUT OF RESEARCH AND PROJECTS TAKEN

1. **Gyasi Samuel Fosu**, Esi Awuah, J.A. Larbi, G.A. Kuffuor & O.O. Afriyie (**2012**). Clinical, haematological and histopathological responses to arsenic toxicity in ICR mice using arsenic levels synonymous to Buruli Ulcer endemic communities in the Amansie West District of Ghana. **European Journal of Experimental Biology**, **2012**, **2 (3):683-689**.
2. **Gyasi S.F**, E. Awuah, J.A. Larbi, G.A. Kuffuor (2012) Arsenic in water and soil: A possible contributory factor to *M. ulcerans* Infection in Buruli Ulcer Endemic Communities. **Asian Journal of Biological Sciences**. scialert.net/abstract/?doi=ajbs.2011.483.497.
3. **Gyasi S.F**, E. Awuah & J.A. Larbi (2011) Association of perceived risk factors to the development of Buruli Ulcer in the Amansie West Districts, **Asian Journal of Biological Sciences**. **4 (6): 483-497**.
4. **Gyasi S.F**, E. Awuah, J.A. Larbi, Y.A. Debrah & N.Y. Awua-Boateng (**2012**) Temporal relationships of environmental arsenic and *M. ulcerans* infections in the Amansie West District of Ghana (**Pharmacologia, UK**)/DOI: 10.5567/pharmacologia.2013.320.326.
5. **Gyasi S.F**, E. Awuah, J.A. Larbi, G.A. Kuffuor & O.O. Afriyie (**2012**). Susceptibility of arsenic exposed ICR mice to the development of Buruli Ulcer in the Amansie West District of Ghana. (**Pharmacologia, UK**)/DOI: 10.5567/pharmacologia.2013.264.
6. **Gyasi S. F.**, Awuah E, Ofosu E. A., Kotei D and Abbas K M., (**2014**). Environmental sanitation Attitudes in Buruli Ulcer Communities and its Potential Impacts in the Asanti Akim North District, Ghana. Research journal of Environmental Science, **8**: 78-89. DOI: 103923/rjes.2014.78.89

7. **Gyasi S.F.**, Awuah E., Koffour G. A., Sampson D. K., Debrah A Y. **(2014)**. Comparative analysis of environmental arsenic and other heavy metals in 2 Buruli Ulcer endemic districts in the Ashanti Region, Ghana JENRM, Vol. 1, No. 1, 56-62, 2014, Research Article.
8. Awuah E., **Gyasi S.F.**, Anipa H. K. and Adjei A, (2014). Microbial Quality of Sachet and bagged Drinking water: A case Study in Kumasi, Ghana. Research Journal of Microbiology, 9: 199-207 DOI: 10.3923/jm.2014.199.207.
9. Appiah-Effah E, Nyarko K. B., **Gyasi S. F.**, and E. Awuah **(2014)**. Faecal sludge management in low income areas: a case study of three districts in the Ashanti region of Ghana, IWA Publishing 2014 Journal of Water, Sanitation and Hygiene for Development | 04.2 | 2014, Doi: 10.2166/washdev.2014.126.
10. Bosompem M. O., Agyapong E. A., **Gyasi S. F.** and E. Awuah **(2014)**. An Empirical Perspective of Water Quality in Appiadu: A suburb of Kumasi in the Ashanti Region, Ghana. Trends in Applied Sciences Research, 9:144-152 DOI: 10.3923/tasr.2014.144.152,
[URL:http://scialert.net/abstract/?doi=tasr.2014.144.152.](http://scialert.net/abstract/?doi=tasr.2014.144.152)
11. Bosompem M. O., Agyapong E. A., **Gyasi S. F.** **(2014)**. Elucidating Microbial Pollution Markers of Drinking Water in Appiadu within the Ashanti Region of Ghana International Journal of Current, Research. Vol. 6, Issue, 11, pp.944-9450, November, 2014.
12. Awuah E & **Gyasi S.F.**, **(2014)**. Role of Protozoa on Faecal Bacteria Removal in Macrophyte and Algal Waste Stabilization Ponds, Microbiological Journal, 2014, ISSN 2153-0696/DOI: 10.3923/MJ.2014.
13. Awuah E, Amankwaah-Kuffour R, **Gyasi S.F.**, Lubberding H. J., & Gijzen H. J., **(2014)**. Characterization and Management of Domestic Wastewater in 2 Suburbs of Kumasi, Ghana. Research Journal of Environmental Science. ISSN 1819-3412 / DOI: 10.3923/RJES.2014.
14. Awuah E, **Gyasi S F**, Anipa H..M.K & K. E. Sekyiamah **(2014)**. Assessment of rainwater Harvesting as a Supplement to Domestic Water Supply: Case Study in Kotei-Ghana, International Research Journal of Public and Environmental Health, Vol.1 (6), pp. 126-131, August 2014.

15. Awuah Esi, **Gyasi Samuel Fosu**, Nettey W, Attiogbe F, Lubberding H. J. & H. J. Gijzen (2014). Atmospheric air pollution associated with macrophyte and algal-based wastewater stabilization ponds in Kumasi, Ghana. JENRM, Vol. No. 2, 88-92, 2014, ISSN: 2026-6189.
16. **Gyasi Samuel Fosu**, Appiah-Effah E and A. Nkansah (2014). Microbial Impacts of Brewery Effluent Discharge on Sissa River: A Case Study of Kaase in Kumasi Ghana. Research Journal of Microbiology. DOI: 10.2923/jm.2014.
17. Jerry Lawrence Authur, **Samuel Fosu Gyasi**, Amos T. Kabo-Bah and Esi Awuah (2015). Rainfall Variability and its Impact on Reported OPD Cases of *Salmonella Typhii* in Sunyani, Ghana, Research Journal of Environmental sciences, 9: 39-47, DOI: 10.3923/rjes.2015.39.47
18. Jacob Kwadwo Amponsah Abebrese, **Samuel Fosu Gyasi**, Margaret Gyapong (2015). Assessing the Reporting System of Maternal Mortality: A Case Study of a Health Care Centre in the Asuogyaman District, Ghana, Journal of Biology, Agriculture and Healthcare www.iiste.org, ISSN 2224-3208 (Paper) ISSN 2225-093X (Online), Vol.5, No.4, 2015.
19. Jacob Kwadwo Amponsah Abebrese, **Samuel Fosu Gyasi**, Margaret Gyapong (2016). Maternal Mortality, Proteinuria and Pregnancy Induced Hypertension: Case Study of a Regional Hospital in Brong Ahafo Region, Ghana. Journal of Biology, Agriculture and Healthcare www.iiste.org ISSN 2224-3208 (Paper) ISSN 2225-093X (Online), Vol.6, No.14. 2016.
20. **Samuel Fosu Gyasi**, Bismark Boamah, Esi Awuah and Kenneth Bentum Otabil (2018). A Perspective Analysis of Dams and Water Quality: The Bui Power Project on the Black Volta, Ghana. Journal of Journal of Environmental and Public Health, Volume 2018, Article ID 6471525, 10 pages, <https://doi.org/10.1155/2018/6471525>.
21. Kenneth Bentum Otabil, **Samuel Fosu Gyasi**, Esi Awuah, Daniels Obeng-Ofori, Mario A. Rodríguez-Pérez, Charles R. Katholi, Thomas R. Unnasch (2018). The Search for an Efficient Black Fly Trap for Xenomonitoring of Onchocerciasis, Journal of Parasitology Research, Volume 2018, Article ID 5902367, 10 pages, DOI:[10.1155/2018/5902367](https://doi.org/10.1155/2018/5902367).
22. **Samuel Fosu Gyasi**, Abigail Antwiwaa Boateng, Esi Awuah & Eric Ofosu Antwi (2019). Ellucidating the incidence and the prevalence of Schistosomiasis spp

infection in riparian communities of the Bui dam, Journal of Parasitic Diseases, Issue 43 Vol. 4, DOI: 10.1007/s12639-019-01089-4.

23. Kenneth Bentum Otabil, **Samuel Fosu Gyasi**, Esi Awuah, [Daniels Obeng-Ofori](#), Robert Junior Atta-Nyarko, Dominic Andoh, [Beatrice Conduah](#), [Lawrence Agbenyikey](#), [Philip Aseidu](#), Comfort Blessing Ankrah, Abdul Razak Nuhu & [H. D.F.H. Schallig \(2019\)](#). Prevalence of Onchocerciasis and Associated Clinical Manifestations in Selected Hypoendemic Communities in Ghana following Long-Term Administration of Ivermectin, BMC Infectious Disease, volume 19, article number: 431 (2019), doi <https://doi.org/10.1186/s12879-019-4076-2>.
24. D. Sarpong, S. Oduro-Kwarteng, **Samuel Fosu Gyasi**, R. Buamah, E. Donkor, E. Awuah, M. K. Baah (2019). Biodegradation by composting of municipal organic solid waste into organic fertilizer using the black soldier fly (*Hermetia illucens*) (Diptera: Stratiomyidae) larvae, International Journal of Recycling of Organic Waste in Agriculture, Vol 8, Issue 26.
25. Robert Ohene Adu, **Samuel Fosu Gyasi**, David Kofi Assumang, Kenneth Bentum Otabil (2020). Behavioural Pattern on Medical Waste Management in 5 Hospitals in Ghana. Journal of Environment and Public Health Hindawi Journal of Environmental and Public Health Volume 2020, Article ID 2934296, 14 pages, <https://doi.org/10.1155/2020/2934296>.
26. Kenneth Bentum Otabil, **Samuel Fosu Gyasi**, Esi Awuah, Daniel Obeng Ofori, HDFH Schallig (2020). Optimized Prototypes of the Esperanza window Traps are effective as human landing Collectors in capturing host-seeking blackflies in a community of low vector density in Ghana. Hindawi, Journal of Parasitology Research Volume 2018, Article ID 5902367, 10 pages <https://doi.org/10.1155/2018/5902367>.
27. **Samuel Fosu Gyasi**, H. Abdul-Rashi, T. Boakye, R. Abugre and H. K. Korda (2017). Microbial Contamination of Hand Dug Wells and Pit Latrines in Fiapre in the Sunyani, Ghana. JENRM, Vol. 4, No. 3, 85-92, 2017, Research Article.
28. Kenneth Bentum Otabil, **Samuel Fosu Gyasi**, Esi Awuah³, Daniels Obeng-Ofori, Seth Boateng Tenkorang⁵, Justice Amenyo Kessie⁶ and Henk D. F. H. Schallig² Biting rates and relative abundance of Simulium flies under different climatic conditions in an onchocerciasis endemic community in Ghana, Parasites Vectors (2020) 13:229 <https://doi.org/10.1186/s13071-020-04102-5>.
29. Richard Agbo Kwabena Ntibrey, **Samuel Fosu Gyasi** and Francis Atta Kuranchie

(2020). Water shortages and poor sanitation in senior high schools; the potential of greywater reuse as a mitigating measure, *Water and Environment Journal*, doi:10.1111/wej.12622 Print ISSN 1747-6585

30. Richard Agbo Kwabena Ntibrey, Francis Atta Kuranchie and **Samuel Fosu Gyasi** (2020). Antimicrobial and coagulation potential of *Moringa oleifera* powder coupled with sand filtration for treatment of bath wastewater from public senior high schools in Ghana, *Heliyon* 6 (2020) e04627, www.cell.com/heliyon, <http://crossmark.crossref.org/dialog/?doi=10.1016/j.heliyon.2020.e04627&domain=pdf>
31. Dorice Akosua Berkoh, W.K.B.A. Owiredu, **Samuel Fosu Gyasi**, E.T. Donkoh and R.A. Ngala (2019), Factors Associated with Patient Compliance Behaviour in a Peri-Urban Diabetic Clinic Using A Mixed-Methods Approach, *Book of Abstracts, Ghana Science Association, 31st Biennial Conference, pp 46-47. Submitted online for publication in Porto Biomedical Journal PBJ-D-19-00061* (Paper Accepted for Publication 2020).
32. **GYASI, Samuel Fosu**, Kpodo B.2, Antwi R., Demedeme E. , Akuaku M. 2 (2019). Pathogenic *Vibrio cholera* contaminated wastewater discharge into urban receiving waters in Ghana; the performance of a biological wastewater stabilization pond, *JENRM*, Vol. 5, No. 1, 1-6, 2019, Research Article.

(f) Conferences attended

- i. **Abstract:** A socio-economic analysis of different approaches to faecal sludge treatment in Sunyani, Ghana, 2018. 39th WEDC International Conference, Ghana, 2016, Ensuring availability and sustainable management of water and sanitation for all. Mallory, M. Crapper., **SF Gyasi** and B Boamah.
(As PhD Co supervisor)
- ii. **Abstract:** Factors Associated with Patient Compliance Behaviour in a Peri-Urban Diabetic Clinic Using A Mixed-Methods Approach, *Book of Abstracts, Ghana Science Association, 31st Biennial Conference, pp 46-47;*
D. A. Berkoh, W.K.B.A. Owiredu, **S.F. Gyasi**, E.T. Donkoh and R.A. Ngala (2019),
(As Phd Co-supervisor)
- iii. **Abstract:** Adaptation of Nanotechnology Bio-diagnostic for detecting NTDs,
Conference theme: Diagnostics, drug discovery and Development, by ISNTD at Wellcome Trust, London, May 20 to 21, 2019. **Samuel Fosu Gyasi**
- iv. **Abstract:** Influence of climatic variations to the development of Buruli ulcer in

Ghana. **Conference theme:** Buruli Ulcer Control Programme Meeting at WHO Headquarters (HQ), Executive Board Room, Geneva, Switzerland, March, 2019.
Samuel Fosu Gyasi, Esi Awuah and James Ampofo

- v. **Abstract:** Adaptation of Nanotechnology Bio-diagnostic for detecting NTDs,
Conference theme: Diagnostics, drug discovery and Development, by ISNTD at Welcome Trust, London, May 20 to 21, 2015.

- vi. **Abstract:** Environmental Sanitation Attitudes and Its Potential Impact on BU infections in the Asanti Akim Agogo, Ghana, Conference theme.
Conference theme: Buruli Ulcer Control Programme Meeting at WHO Headquarters (HQ), Executive Board Room, Geneva, Switzerland, March, 2017.
Samuel Fosu Gyasi and Esi Awuah

- vii. **Abstract:** Comparative analysis of environmental arsenic and other heavy metals in 2 Buruli Ulcer endemic districts in the Ashanti Region, Ghana, Conference theme.
Conference theme: Buruli Ulcer Control Programme Meeting at WHO Headquarters (HQ), Executive Board Room, Geneva, Switzerland, March, 2015.

- viii. **Poster Presentation: Abstract-** Clinical, haematological and histopathological responses to arsenic toxicity in ICR mice using levels synonymous to Buruli Ulcer endemic communities in the Amansie West District of Ghana-
Conference theme: Bites2015, ISNTD-London, March 2015.

- ix. **Abstract-** Susceptibility of arsenic exposed mice to the Development of Buruli Ulcer in the Amansie West District of Ghana –
Conference theme: Buruli Ulcer Control Programme Meeting at WHO Headquarters (HQ), Executive Board Room, Geneva, Switzerland, March, 2015.

- x. **Abstract-** Clinical, haematological and histopathological responses to arsenic toxicity in ICR mice using levels synonymous to Buruli Ulcer endemic communities in the Amansie West District of Ghana-
Conference theme: Buruli Ulcer Control Programme Meeting at WHO Headquarters (HQ), Executive Board Room, Geneva, Switzerland, March, 2013.

- xi. **Abstract-** Arsenic in water and soil: A possible contributory factor to *M. ulcerans* Infection in Buruli Ulcer Endemic Communities-

Conference theme: Buruli Ulcer Control Programme Meeting at WHO Headquarters (HQ), Executive Board Room, Geneva, Switzerland, March, 2013.

xii. **USAID** Sponsored African- US Network of Centre of Excellence for Young Scientist
by University of Tuskegee, USA-2IE Summer School, Burkina Faso (**June, 10-20, 2012**).

xiii. **Abstract-** Association of perceived risk factors to the development of Buruli Ulcer
in the Amansie West Districts- **Conference theme: WHO Headquarters (HQ), Geneva, Switzerland, March, 2011.**

xiv. **Abstract-** Clinical, haematological and histopathological responses to arsenic
toxicity in ICR mice using levels synonymous to Buruli Ulcer endemic communities in
the Amansie West District of Ghana-
Conference theme: Water and Health Conference, University of North Carolina,
USA (Abstract has been selected for oral presentation –Scholarship awarded)
[October 14-18, 2013, in Chapel Hill, NC]

(g) AFFILIATION:

- **Member:** International Society for Neglected Tropical Diseases
- **Member:** WHO, Global Buruli Ulcer Initiative Programme
- **Member:** British Society of Microbiology
- **Member:** American Society of Microbiologist
- **Member:** Ghana Science Association, Ghana
- **Member:** Royal Society of Tropical Medicine and Hygiene, UK
- **Member:** American Society for Microbiology, USA
- **Member:** International Society for Infectious Diseases, USA

(i) AWARDS:

- ISNTD Water Awards, London, United Kingdom
- PATH/WHO Funded Health Utilization Study, within the Context of RTSS,S Malaria Vaccine Implementation Programme (Joint award
- Instrumental Access (Seeding Laboratory) Project