

BIOGRAPHICAL SKETCH

Doudou SOW, MD, PhD
Parasitology-Mycology, Health Science Department
Neglected Tropical Diseases Research Center
University Gaston Berger of Saint-Louis, Sénégal

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NAME: Doudou SOW

POSITION TITLE: Full Professor

EDUCATION/TRAINING

	INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
-	Lycée Galandou Diouf	Baccalaureate S2	1999	General
	University Cheikh Anta Diop, Dakar	Doctorate	2009	Medicine
	University Cheikh Anta Diop, Dakar	Master	2011	Biology and Parasite Control
	University Cheikh Anta Diop, Dakar	Diploma of specialization	2013	Clinical Biology
	University Cheikh Anta Diop, Dakar	PhD	2014	Parasitology
	Aix-Marseille University, France	Postdoctoral fellow	2015-2016	Microbiology-Parasitology

A. Personal Statement

My research interest includes molecular biology and epidemiology of human emerging infectious diseases including neglected tropical diseases. Reflective of this interest, I participated in many clinical trials assessing the efficacy of current and new antimalarial drugs. Following these activities, I started working on new diagnostic tools and innovative strategies for surveillance and control of Neglected Tropical Diseases. This lead me during my PhD training, to work on development of innovative tools (Real time PCR, MALDI TOF MS) for the diagnosis and the surveillance of intestinal parasitic diseases, schistosomiasis and fungal infections.

Since 2018, I have set up with other colleagues a research working group on schistosomiasis and Mycetoma. Since then, we have conducted several activities including surveys, training, surveillance in

collaboration with the ministry of Health. Following these activities, we have established a Neglected Tropical Disease Centre at the University Gaston Berger of Saint-Louis to promote a multidisciplinary approach.

Since April 2025, I have been appointed as President of the training and Scientific committee of the Neglected Tropical Disease Program at the ministry of Health to facilitate the communication between research institute working on NTD and the ministry of Health.

I have published several papers and co-authored many other publications in the international literature. I have made multiple presentations at international conferences (ASTMH, MIM, SOAP etc....).

B. Positions and Honors

Selected Positions and Employment:

2008-2011: Resident in clinical biology, Fann teaching hospital, Dakar

2012- 2017: Assistant (Lecturer) of Parasitology-Mycology, University Cheikh Anta Diop of Dakar

2012- to date: Biologist in Fann teaching hospital, Dakar

2014-2016: Post doc position in Parasitology-Mycology at Aix-Marseille University, France

2017-2020: Assistant Professor of Parasitology-Mycology, Health Science Department, University Gaston Berger of Saint Louis

2020-2024: Associate Professor of Parasitology-Mycology, Health Science Department, University Gaston Berger of Saint Louis

2022- To date: Member of the governing board of the University Gaston Berger of Saint-Louis

2024-to date: Full Professor of Parasitology-Mycology, Health Science Department, University Gaston Berger of Saint Louis

April 2025 to date: Coordinator of the Neglected Tropical Diseases Research Center at the University Gaston Berger of Saint-Louis

Selected Experience and Professional memberships

2006-2009: Co-investigator in the operational research project on intermittent preventive treatment of malaria in infants in Senegal funded by UNICEF

2010- 2011: Co-investigator in the study "Efficacy and tolerability of a new formulation of Artesunate-

Mefloquine (25mg / kg mefloquine base) for the treatment of uncomplicated malaria in adult in Senegal: an open randomized trial"

2012-2014: Co-investigator in West African ICEMR project granted by the NIH/NIAID program

2012-present: Member of the West African Society of Parasitology

2015-present: Reviewer, Journal of Medical Mycology

2018-present: Member of the Data Safety Monitoring Board for a Schistosoma vaccine trial in Senegal

April 2019: Supervisor of a Schistosomiasis survey in 4 West African countries

2020: Academic Editor of Journal of Parasitology Research (Hindawi)

2021: Member of the advisory scientific committee of the Infectious Diseases Data Observatory (IDDO)

2021-2025: Appointed as member of the WHO Technical Advisory Group for schistosomiasis and Soil

Transmitted Helminthiasis control and elimination

2023- To date: Member of the WHO Skin Neglected Tropical Disease Labnet

April 2025- To date: President of the training and Scientific committee of the Neglected Tropical Disease Program at the ministry of Health

Honors:

2017- 2023: Nominated as affiliate in the African Academy of Science

C. Publications

Selected publications related to mycetoma

- Oladele RO, Ly F, <u>Sow D</u>, Akinkugbe AO, Ocansey BK, Fahal AH, van de Sande WWJ. Mycetoma in West Africa. Trans R Soc Trop Med Hyg. 2021 Mar 16:trab032. doi: 10.1093/trstmh/trab032. Online ahead of print.
- 2. <u>Sow D</u>, Ndiaye M, Sarr L, Kanté MD, Ly F, Dioussé P, Faye BT, Gaye AM, Sokhna C, Ranque S, Faye B. Mycetoma epidemiology, diagnosis management, and outcome in three hospital centres in Senegal from 2008 to 2018PLOS ONE 2020; 15 (4): 1-13, DOI: 10.1371/journal.pone.0231871
- 3. Ndiaye M, Diatta BA, <u>Sow D</u>, Diallo M, Diop A, Diadie S, Diallo S, Ndiaye MT, Niang SO, Ly F, Dieng MT, Kane A. A dorsolumbar tumoral actinomycosic mycetoma, an unusual mycetoma presentation. Journal de Mycologie Médicale 2014; 24: 44-47
- 4. Konings M, Siddig E, Eadie K, Minlekib CP, Faye M, **Sow D**, Fahal A, Verbon A, van de Sande W. <u>The development of a multiplex recombinase polymerase amplification reaction to detect the most common causative agents of eumycetoma. J Clin Microbiol Infect Dis. 2025 Jul;44(7):1705-1714. doi: 10.1007/s10096-025-05134-4. Epub 2025 Apr 30.</u>
- 5. Fongwen N, Asiedu KB, Bakhiet S, Bonifaz A, Cruz I, Argaw D, Estrada-Chavez G, Fahal AH, Litvintseva A, Marks M, Salinas-Carmona MC, **Sow D**, van de Sande WWJ. <u>Diagnostics to support mycetoma management-Development of two target product profiles.</u> Trop Med Int Health. 2022 Dec;27(12):1059-1064. doi: 10.1111/tmi.13828. Epub 2022 Nov 14.PMID: 36329624

Selected publications related to other Neglected Tropical Diseases

- Sow D, Sylla K, Dieng NM, Senghor B, Gaye PM, Fall CB, Goumballa N, Diallo A, Ndiaye JLA, Parola P, Sokhna C, Doucouré S, Faye B. <u>Molecular diagnosis of urogenital schistosomiasis in pre-school children.</u> <u>school-aged children and women of reproductive age at community level in central Senegal.</u> Parasit Vectors. 2023 Jan 31;16(1):43. doi: 10.1186/s13071-023-05671-x.
- Sow D, Ndiour CN, Thiam O, Ndiaye M, Diagne PN, Doucouré S, Senghor B, Gaye O, Sokhna C, Faye B. Cytobrush and cotton swab as sampling tools for molecular diagnosis of female genital schistosomiasis in the uterine cervix. Curr Res Parasitol Vector Borne Dis. 2023 Oct 1;4:100143. doi: 10.1016/j.crpvbd.2023.100143.
- Gaye PM, Doucouré S, <u>Sow D</u>, Sokhna C, Ranque S. <u>Identification of Bulinus forskalii as a potential intermediate host of Schistosoma hæmatobium in Senegal.</u> PLoS Negl Trop Dis. 2023 May 9:17(5):e0010584. doi: 10.1371/journal.pntd.0010584. eCollection 2023 May.
- 4. Senghor B, Mathieu-Begné E, Rey O, Doucouré S, <u>Sow D</u>, Diop B, Sène M, Boissier J, Sokhna C. <u>Urogenital schistosomiasis in three different water access in the Senegal river basin: prevalence and monitoring praziquantel efficacy and re-infection levels.</u> BMC Infect Dis. 2022 Dec 29;22(1):968. doi: 10.1186/s12879-022-07813-5.

Selected publications related to clinical trials

- Sylla K, Abiola A, Tine RC, Faye B, <u>Sow D</u>, Ndiaye JL, Ndiaye M, Lo AC, Folly K, Ndiaye LA, Gaye O.
 Monitoring the efficacy and safety of three artemisinin based-combinations therapies in Senegal: results
 from two years surveillance. BMC Infectious Diseases 2013; 13:598
- 2. Tine RCK, Ndour CT, Faye B, Cairns M, Sylla K, Ndiaye M, Ndiaye JL, <u>Sow D</u>, Cisse B, Magnussen P, Bygbjerg Ib C, Gaye O. Feasibility, safety and effectiveness of combining home based malaria management and seasonal malaria chemoprevention in children less than 10 years in Senegal: a cluster-randomised trial. Transaction of the Royal Society of Tropical Medicine and Hygiene 2013; 1-9
- **3. Sow D**, Ndiaye JL, Sylla K et al. Evaluation of the efficacy and safety of three 2-drug combinations for the treatment of uncomplicated Plasmodium falciparum malaria in Senegal: artesunateamodiaquine, dihydroartemisinin-piperaquine, and artemether-lumefantrine. Med Sante Trop. 2016 Jan-Mar; 26(1):45-50.

4. Tine RC, Sylla K, Faye BT, Poirot E, Fall FB, <u>Sow D</u>, Wang D, Ndiaye M, Ndiaye JL, Faye B, Greenwood B, Gaye O, Milligan P. Safety and Efficacy of Adding a Single Low Dose of Primaquine to the Treatment of Adult Patients With Plasmodium falciparum Malaria in Senegal, to Reduce Gametocyte Carriage: A Randomized Controlled Trial. Clin Infect Dis. 2017 Aug 15;65(4):535-543. doi: 10.1093/cid/cix355.

D. Research Support

Ongoing Research Support

Dioraphte project on Mycetoma 2022-2025: Co-investigator

Development of point-of-care diagnostic tests for mycetoma in Africa

AMED project in collaboration with Nagasaki University 2025: Co-investigator

Innovative diagnostics for eumycetoma: research into new biomarkers, point-of-care diagnostics, and development of a clinical epidemiology platform (Phase I)

TDR- WHO project 2025: Principal Investigator (PI)

Mapping visceral leishmaniasis in hospital settings in Senegal

COR-NTD project funded by Gates Foundation 2024-2025: Co-investigator

Mapping Female Genital Schistosomiasis in Senegal

TDR-WHO project 2025- 2026: Co-investigator

Feasibility of the introduction of Arpraziquantel coupled with malaria control strategies in the management of pediatric schistosomiasis in the south of Senegal

NSF project in collaboration with the University of Notre Dame in USA 2023-2026: Co-investigator Identify local to global "win-win" solutions for human health and sustainable development through infectious disease control

Completed Research Support (selected)

Project World Bank Funding 2017-2018: Principal Investigator (PI)

"Assessment of innovative tools for the diagnosis of gastrointestinal diseases in malnourished children": funded by the African center of excellence for mother and Child in Senegal (World Bank funding).

Project EDTCP, European funding 2018-2020: Co-Investigator

WANETAM 2 program: Set up of West African working group on Neglected Tropical Diseases.

Project on neglected tropical disease 2020-2021: Principal Investigator

Funding agency: WHO, Geneva grant number: 2020/1068006

Assessment of the efficacy of praziquantel in the treatment of urogenital schistosomiasis

Project Institut de Recherche et Développement (IRD), French government 2018-2021 : Principal Investigator

Assessment of innovative strategies for schistosomiasis control in Senegal.

UK Research and Innovation 2021-2023 Funding Project: Co-Investigator

Mapping the Prevalence of Malaria-Helminth Coinfections in a West African Pediatric Population

Research project funded by DNDi 2024: Principal Investigator in Senegal

Estimating the burden of mycetoma: Retrospective analysis of hospital records

Pr. Doudou Sow