

ROSERIC AZONDEKON

roseric_2000@yahoo.fr

https://www.researchgate.net/profile/Roseric_Azondekou

Education

Sep 2014– August 2018 **PhD in Biomedical and Health Informatics (Expected graduation: Summer 2018)**

College of Engineering and Applied Science
University of Wisconsin Milwaukee
Milwaukee, United States

Sep 2012 – May 2014 **Master of Public Health, Epidemiology**
School of Public Health and Health Science
University of Massachusetts Amherst
Amherst, MA, United States

Dec 2007 – Mar 2010 **Master of Science, Applied Entomology**
Faculty of Science and Technology
University of Abomey-Calavi
Abomey-Calavi, Benin

Oct 2003 – Sep 2007 **Engineer degree, Biomedical Sciences**
Polytechnic School of Abomey-Calavi
University of Abomey-Calavi
Abomey-Calavi, Benin

Work Experience

Sep 2016 – April 2018 **Clinical Research Assistant I**
Medical College of Wisconsin, Welzig Computational Neuroscience lab, 8701
Watertown Plank Road, TBRC C2020, Tel: +1-414-955-5752, Email:
welzig@mcw.edu
Milwaukee, WI 53226, Wisconsin, United States

Main activities Technical skills and responsibilities:

- Development of predictive models using Machine Learning techniques such as Deep Learning
- High Throughput Computing and Parallel Programming

- Acquisition, Processing and Analysis of MEG, EEG, fNIRS and fMRI data

sSep 2015 – Dec 2015 **Teaching Assistant**

University of Wisconsin - Milwaukee, Joseph J. Zilber School of Public Health,
1240 N 10th Street, Tel: +1-414-227-5006, Milwaukee, WI 53205, USA

Main activities Technical skills and responsibilities:

- Teaching Elementary data analysis using SAS to first-year MPH students enrolled in the Introductory Biostatistics course PH 702 801-LAB 14B (SAS Lab)
- Design of quizzes and various assignments to evaluate students' progress
- Provide grading and feedback to students

Nov 2014 – May 2015 **Research Assistant**

University of Wisconsin - Milwaukee, Laboratory for Public Health Informatics and Genomics
1240 N 10th Street, Tel: +1-414-227-5006, Milwaukee, WI 53205, USA

Main activities Technical skills and responsibilities:

- Genomics data analysis of RNA-seq data using R, TCGA tools, Galaxy and Chipster
- Genomics pipeline development of various Bioinformatics tools such as VirusSeq
- High Throughput Computing
- Analysis of gene network

Dec 2006 – now (more than 11 years of **Research Assistant, Head of the Quality Control of Insecticide Treated Tool**

experience in Medical

Entomology)

Laboratory
Centre de Recherche Entomologique de Cotonou, PO-BOX : 06-2604, Tel.:
+22921330825 – Email: akogbetom@yahoo.fr, Ministry of Health, Republic of Benin.

Main activities Technical skills and responsibilities:

- Monitoring of malaria vectors resistance to insecticide using WHO tube test and CDC bottle test and molecular analysis of mosquito species and resistance mechanisms such as Kdr, Ace-1R, Esterase, Oxydase and GST-Transferase
- Quality control of Indoor Residual Spray using wall cone Bioassay and filter paper for spray quality control with HPLC

- Efficacy assessment of Long Lasting Impregnated Nets in laboratory and field conditions using cone bioassays, Rapid Field Colorimetric Testing and Gas chromatography
- Identification and characterization of malaria vectors
- Monitoring and Evaluation of Long Lasting Impregnated Nets durability in field conditions (Net coverage, net survival and physical integrity)
- Mosquito larvae collection and rearing to adult stage in the insectarium
- Adult mosquito collection using Human Landing Catch, Indoor Pyrethrum Spray and Window traps
- Good knowledge of the mapping of malaria vectors insecticide resistance.

Specialization Certificates

- Sep 2015* Programming for Everybody (Python), School of Information, University of Michigan Coursera Courses.
- Feb 2009* Training workshop on the analysis of quantitative and qualitative data and an introduction to STATA and QSR Nvivo software, Bobo-Dioulasso, Burkina Faso supported by WHO/TDR/MIM Project ID no A 50066, from February 16th to 20th, 2009.

Computer Skills/Programming languages

- Data analysis software* High proficiency in R, SAS, STATA, EpiInfo, SPSS, Minitab, and QSR Nvivo
- Mobile Data Collection* ODK Collect and Makina Collect
- Programming Languages* High Proficiency in R, Python, SQL and Latex
Working knowledge of C, Javascript, HTML, and VBA

Awards & Grants

- Jan 2016* Scholarship: IDB Merit Scholarship Programme for High Technology
- Mar 2015* Fellowship: Distinguished Graduate Student Fellowship - University of Wisconsin Milwaukee
- Aug 2014* Award: Chancellor's Graduate Student Award - University of Wisconsin Milwaukee
- May 2013* Award: Hosmer BioStat Scholarship - University of Massachusetts Amherst
- Jul 2012* Scholarship: **Fulbright Foreign Student Program**
- Jun 2008* Scholarship: Islamic Development Bank M.Sc Scholarship Programme

<i>Mar 2010</i>	Award: Outstanding Student for the Master of Applied Medical Entomology Program at the University of Abomey-Calavi
<i>Sep 2007</i>	Award: Outstanding Student for the Engineer Degree in Biomedical Science Program at the Polytechnic School of the University of Abomey-Calavi
<i>September 2003</i>	Scholarship: Four-year Government scholarship awarded after a national competitive selection to enter the Biomedical Science program at the Polytechnic School of the University of Abomey-Calavi, Republic of Benin.

Skills & Activities

<i>Skills</i>	Monitoring & Evaluation, Mobile Data Collection, Data Management, Epidemiological Analysis, Vector Biology and Control, Infectious Disease Surveillance, Machine Learning, Natural Language Processing, Data Mining, Complex Analysis of Network Data
<i>Proficient Languages</i>	English, French
<i>Scientific Memberships</i>	American Public Health Association
<i>Journal Referee</i>	Emerging Infectious Diseases, Parasites & Vectors, American Medical Informatics Association (AMIA)
<i>Interests</i>	Infectious Diseases, Public Health Informatics, Bioinformatics

Software

<i>April 2018</i>	kdtApp: A small Shiny app for the estimation of Knock-Down Time based on aggregated WHO or CDC bottle Bioassay data. URL: https://razondekon.shinyapps.io/kdtApp/
<i>Feb 2018</i>	Authorvis: a co-authorship network exploration, and link prediction tool specific to the scientific collaborative research network of Malaria, Tuberculosis and HIV/AIDS in the Republic of Benin. URL: https://hub.docker.com/r/rosericazondekon/authorvis , https://github.com/rosericazondekon/authorvis
Github repository: https://github.com/rosericazondekon	

List of Publications

1. **Roseric Azondekon**, Zachary James Harper, Fiacre Rodrigue Agossa, Charles Michael Welzig, and Susan McRoy. *Scientific Authorship and Collaboration Network Analysis on Malaria Research in Benin: Papers Indexed in the Web of Science (1996–2016)*. Global Health Research and Policy 3, no. 1 (April 6, 2018). doi:10.1186/s41256-018-0067-x.

2. Fiacre R Agossa, Virgile Gnanguenon, Rodrigue Anagonou, **Roseric Azondekon**, Nazaire Aïzoun, Arthur Sovi, Frédéric Oké-Agbo, Michel Sèzonlin, Martin C Akogbéto: *Impact of Insecticide Resistance on the Effectiveness of Pyrethroid-Based Malaria Vectors Control Tools in Benin: Decreased Toxicity and Repellent Effect*. PLoS ONE 12/2015; 10(12):e0145207., DOI:10.1371/journal.pone.0145207
3. Rodrigue Anagonou, Fiacre Agossa, **Roseric Azondékon**, Marc Agbogan, Frédéric Oké-Agbo, Virgile Gnanguenon, Kèfilath Badirou, Ramziath Agbanrin-Youssof, Roseline Attolou, Gil Germain Padonou: *Application of Polovodova's Method for the Determination of Physiological Age and Relationship between the Level of Parity and Infectivity of Plasmodium falciparum in Anopheles gambiae ss, South-eastern Benin*. Parasites & Vectors 12/2015; 8(1-1):117., DOI:10.1186/s13071-015-0731-7
4. Martin C Akogbéto, Rock Y Aïkpon, **Roseric Azondékon**, Gil G Padonou, Razaki A Ossè, Fiacre R Agossa, Raymond Beach, Michel Sèzonlin: *Six years of experience in entomological surveillance of indoor residual spraying against malaria transmission in Benin: Lessons learned, challenges and outlooks*. Malaria Journal 06/2015; 14(1):242., DOI:10.1186/s12936-015-0757-5
5. Virgile Gnanguenon, Fiacre R Agossa, Kefilath Badirou, Renaud Govoetchan, Rodrigue Anagonou, Frédéric Oke-Agbo, **Roseric Azondekon**, Ramziath AgbanrinYoussof, Roseline Attolou, Filemon T Tokponnon, Rock Aïkpon, Razaki Ossè, Martin C Akogbeto: *Malaria vectors resistance to insecticides in Benin: Current trends and mechanisms involved*. Parasites & Vectors 04/2015; 8(1):223., DOI:10.1186/s13071-015-0833-2
6. Rodrigue Anagonou, Fiacre Agossa, **Roseric Azondékon**, Marc Agbogan, Frédéric Oké-Agbo, Virgile Gnanguenon, Kèfilath Badirou, Ramziath Agbanrin-Youssof, Roseline Attolou, Gil Germain Padonou, Arthur Sovi, Razaki Ossè, Martin Akogbéto: *Application of Polovodova's method for the determination of physiological age and relationship between the level of parity and infectivity of Plasmodium falciparum in Anopheles gambiae s.s, south-eastern Benin*. Parasites & Vectors 01/2015; 8:117.
7. Rodrigue Anagonou, Fiacre Agossa, Virgile Gnanguenon, Bruno Akinro, Gil Germain Padonou, Renaud Govoetchan, Rock Aikpon, Arthur Sovi, **Roseric Azondekon**: *Development of new combined method based on reading of ovarian tracheoles and the observation of follicular dilatations for determining the physiological age of Anopheles gambiae ss*. 01/2015; 9(1):9-15.
8. Virgile Gnanguenon, Renaud Govoetchan, Fiacre R Agossa, Razaki Ossè, Frédéric Oke-Agbo, **Roseric Azondekon**, Arthur Sovi, Roseline Attolou, Kefilath Badirou, Filémon T Tokponnon, Gil G Padonou, Martin C Akogbeto: *Transmission patterns of Plasmodium falciparum by Anopheles gambiae in Benin*. Malaria Journal 11/2014; 13(444)., DOI:10.1186/1475-2875-13-444
9. Nazaire Aïzoun, **Roseric Azondekon**, Rock Aïkpon, Virgile Gnanguenon, Razaki Osse, Alex Asidi, Martin Akogbéto, Asian Pac, J Trop Biomed: *Study of the efficacy of a Wheaton coated bottle with permethrin and deltamethrin in laboratory conditions and a WHO impregnated paper with bendiocarb in field conditions* Asian Pacific Journal of Tropical Biomedicine. Asian Pacific Journal of Tropical Biomedicine 06/2014; 4(6):492-497., DOI:10.12980/APJTb.4.2014C1111
10. Nazaire Aïzoun, Virgile Gnanguenon, **Roseric Azondekon**, Rodrigue Anagonou, Rock Aïkpon, Martin Akogbéto: *Status of organophosphate and carbamate resistance in Anopheles gambiae sensu lato from the Sudano Guinean area in the central part of Benin, West Africa*. 04/2014; 8(4):61-68., DOI:10.5897/JCAB2013.0400

11. Nazaire Aïzoun, Rock Aïkpon, **Roseric Azondekon**, Alex Asidi, Martin Akogbeto: *Comparative susceptibility to permethrin of two Anopheles gambiae s.l. populations from Southern Benin, regarding mosquito sex, physiological status, and mosquito age*. 04/2014; 4(4)., DOI:10.12980/APJTB.4.2014C1093
12. Renaud Govoetchan, Virgile Gnanguenon, Euloge Ogouwalé, Frédéric Oké-Agbo, **Roseric Azondékon**, Arthur Sovi, Roseline Attolou, Kefilath Badirou, Ramziyath Agbanrin Youssouf, Razaki Ossè, Martin Akogbéto: *Dry season refugia for anopheline larvae and mapping of the seasonal distribution in mosquito larval habitats in Kandi, northeastern Benin*. Parasites & Vectors 03/2014; 7(1):137., DOI:10.1186/1756-3305-7-137
13. Nazaire Aïzoun, Rock Aïkpon, **Roseric Azondekon**, Virgile Gnanguenon, Razaki Osse, Gil Germain Padonou, Martin Akogbéto: *Centre for Disease Control and Prevention (CDC) bottle bioassay: A real complementary method to World Health Organization (WHO) susceptibility test for the determination of insecticide susceptibility in malaria vectors*. DOI:10.5897/JPVB2013.0144
14. Nazaire Aïzoun, **Roseric Azondekon**, Rock Aïkpon, Rodrigue Anagonou, Virgile Gnanguenon, Martin Akogbéto: *Dynamics of insecticide resistance and exploring biochemical mechanisms involved in pyrethroids and dichlorodiphenyltrichloroethane (DDT) cross-resistance in Anopheles gambiae s.l. populations from Benin, West Africa*. 03/2014; 8(3):pp. 41-50., DOI:10.5897/JCAB2014.0406
15. Arthur Sovi, Innocent Djègbè, Lawal Soumanou, Filémon Tokponnon, Virgile Gnanguenon, **Roseric Azondékon**, Frédéric Oké-Agbo, Mariam Okè, Alioun Adéchoubou, Achille Massougbodji, Vincent Corbel, Martin Akogbéto: *Microdistribution of the resistance of malaria vectors to Deltamethrin in the region of Plateau (southeastern Benin) in preparation for an assessment of the impact of resistance on the effectiveness of Long Lasting Insecticidal Nets (LLINs)*. BMC Infectious Diseases 02/2014; 14(1):103., DOI:10.1186/1471-2334-14-103
16. Renaud Govoetchan, Virgile Gnanguenon, **Roseric Azondékon**, Rodrigue Fiacre Agossa, Arthur Sovi, Frédéric Oké-Agbo, Razaki Ossè, Martin Akogbéto: *Evidence for perennial malaria in rural and urban areas under the Sudanian climate of Kandi, Northeastern Benin*. Parasites & Vectors 02/2014; 7(1):79., DOI:10.1186/1756-3305-7-79
17. Virgile Gnanguenon, **Roseric Azondekon**, Frederic Oke-Agbo, Raymond Beach, Martin Akogbeto: *Durability assessment results suggest a serviceable life of two, rather than three, years for the current long-lasting insecticidal (mosquito) net (LLIN) intervention in Benin*. BMC Infectious Diseases 02/2014; 14(1):69., DOI:10.1186/1471-2334-14-69
18. Fiacre R Agossa, Rock Aïkpon, **Roseric Azondékon**, Renaud Govoetchan, Gil Germais Padonnou, Olivier Oussou, Frédéric Oké-Agbo, Martin C Akogbéto: *Efficacy of various insecticides recommended for indoor residual spraying: Pirimiphos methyl, potential alternative to bendiocarb for pyrethroid resistance management in Benin, West Africa*. Transactions of the Royal Society of Tropical Medicine and Hygiene 02/2014; 108(2):84-91., DOI:10.1093/trstmh/trt117
19. **Roseric Azondekon**, Virgile Gnanguenon, Frederic Oke-Agbo, Speraud Houevoessa, Michael Green, Martin Akogbeto: *A tracking tool for long-lasting insecticidal (mosquito) net intervention following a 2011 national distribution in Benin*. Parasites & Vectors 01/2014; 7(1):6., DOI:10.1186/1756-3305-7-6
20. Nazaire Aïzoun, Rock Aïkpon, **Roseric Azondekon**, Alex Asidi, Martin Akogbéto, Asian Pac, J Trop Biomed: *Comparative susceptibility to permethrin of two Anopheles gambiae s.l. populations from Southern Benin, regarding mosquito sex, physiological status, and mosquito age* Asian Pacific Journal of Tropical Biomedicine.

21. Nazaire Aïzoun, Rock Aïkpon, Virgile Gnanguenon, **Roseric Azondekon**, Frédéric Oké-Agbo, Gil Germain Padonou, Martin Akogbéto: *Dynamics of insecticide resistance and effect of synergists piperonyl butoxide (PBO), S.S.S-tributylphosphorotrithioate (DEF) and ethacrynic acid (ETAA or EA) on permethrin, deltamethrin and dichlorodiphenyltrichloroethane (DDT) resistance in two Anopheles gambiae s. l. populations from Southern Benin, West Africa*. DOI:10.5897/JPVB2013.0137
22. Renaud Govoetchan, Arthur Sovi, Rock Aïkpon, **Roseric Azondékon**, Abel Kokou Agbévo, Frédéric Oké-Agbo, Alex Asidi, Martin Akogbéto: *The effects of oviposition site deprivation up to 40 days on reproductive performance, eggs development, and ovipositional behaviour in Anopheles gambiae (Diptera, Nematocera, Culicidae)*. DOI:10.5897/JPVB2013.0136
23. Arthur Sovi, **Roseric Azondékon**, Rock Y Aïkpon, Renaud Govoéitchan, Filémon Tokponnon, Fiacre Agossa, Albert S Salako, Frédéric Oké-Agbo, Bruno Aholoukpè, Mariam Okè, Dina Gbénou, Achille Massougbodji, Martin Akogbéto: *Impact of operational effectiveness of long-lasting insecticidal nets (LLINs) on malaria transmission in pyrethroid-resistant areas*. Parasites & Vectors 11/2013; 6(1):319., DOI:10.1186/1756-3305-6-319
24. Virgile Gnanguenon, **Roseric Azondekon**, Frederic Oke-Agbo, Arthur Sovi, Razaki Ossè, Gil Padonou, Rock Aïkpon, Martin C Akogbeto: *Evidence of man-vector contact in torn long-lasting insecticide-treated nets*. BMC Public Health 08/2013; 13(1):751., DOI:10.1186/1471-2458-13-751
25. Nazaire Aïzoun, Razaki Ossè, **Roseric Azondekon**, Roland Alia, Olivier Oussou, Virgile Gnanguenon, Rock Aikpon, Gil Germain Padonou, Martin Akogbéto: *Comparison of the standard WHO susceptibility tests and the CDC bottle bioassay for the determination of insecticide susceptibility in malaria vectors and their correlation with biochemical and molecular biology assays in Benin, West Africa*. Parasites & Vectors 05/2013; 6(1):147., DOI:10.1186/1756-3305-6-147
26. Gil Germain Padonou, Ghelus Gbedjissi, Anges Yadouleton, **Roseric Azondekon**, Ossé Razack, Olivier Oussou, Virgile Gnanguenon, Aikpon Rock, Michel Sezonlin, Martin Akogbeto: *Decreased proportions of indoor feeding and endophily in Anopheles gambiae s.l. populations following the indoor residual spraying and insecticide-treated net interventions in Benin (West Africa)*. Parasites & Vectors 11/2012; 5(1):262., DOI:10.1186/1756-3305-5-262
27. HM Gbetoh, PA Etorh, MF Gouissi, AS Hounkpatin, **R Azondekon**, P Guedenon, L Koumonlou, FS Loko, M Boko: *Dosage du plomb et du cadmium dans le sperme des sujets consultant pour infertilité masculine dans la ville de Cotonou*. International Journal of Biological and Chemical Sciences 08/2012; 6(2-2):582., DOI:10.4314/ijbcs.v6i2.3
28. Padonou G G, Sezonlin M, Gbedjissi G L, Ayi I, **Azondekon R**, Djenontin A, Bio-Bangana S, Oussou O, Yadouleton A, Boakye D, Akogbeto M: *Biology of Anopheles gambiae and insecticide resistance: Entomological study for a large scale of indoor residual spraying in south east Benin*. DOI:10.5897/JPVB11.018

Conference Proceedings

1. **Roseric Azondekon**, Zachary Harper, Charles Welzig: *Scientific Authorship and Collaboration Network Analysis on Malaria Research in Benin: papers indexed in the Web Of Science (1996-2016)*. American Society of Tropical Medicine and Hygiene 66th Annual Meeting, Baltimore, MD, USA; 11/2017

2. Zachary Harper, **Roserick Azondekon**, Charles Welzig: *Exploring Connectivity Dynamics using Deep Neural Network Models from Magnetoencephalographic Data*. Organization for Human Brain Mapping, Vancouver, BC, Canada; 06/2017
3. Samuel A. Abariga, **Roserick Azondekon**, Krishna C. Poudel: *Epidemiology of Hepatitis C and HIV co-infection in Asia*. 143rd American Public Health Association Annual conference, Chicago IL; 11/2015
4. **Roserick Azondekon**, Samuel Abariga, Krishna C. Poudel: *Prevalence of Human Immunodeficiency Virus and Hepatitis C virus co-infection in Africa: A Systematic Review and Meta-analysis*. 142nd APHA Annual Meeting & Exposition, New Orleans, LA, USA; 11/2014
5. Akogbeto C. Martin, Osse Razaki, **Azondekon Roserick**, Yadouleton Anges: *Implementing full coverage of long lasting insecticidal nets: a good alternative strategy after cessation or abandon of indoor residual spraying*. ASTMH 61st Annual Meeting, Atlanta, Georgia, USA; 11/2012
6. **Roserick Azondekon**: *Entomological profile and cartography of malaria vector insecticide resistance in Benin*. 5th MIM Pan-African Malaria Conference, Nairobi, Kenya; 11/2009