Hafaliana Christian RANAIVOSON
Lot FVZ 150, Ambohidrazana
Fenoarivo Alakamisy
Antananarivo, Madagascar
+261 34 16 772 68
gammarinema@gmail.com

EDUCATION

2021 **Doctor (PhD) of the University of Antananarivo**
Blood parasites of malagasy fruit bats (Pteropodidae) and their blood sucking ectoparasites: molecular identification and ecological characterization
Faculty of Sciences, University of Antananarivo, Antananarivo, Madagascar Virology Unit, Institute Pasteur of Madagascar, Antananarivo, Madagascar

2007 – 2011 **D.E.A., deepened studies diploma** in Biology, ecology, and animal conservation
Astacoides madagascariensis (Edwards & Audouin, 1839) (Parastacidae) of Anjozorobe forest, Madagascar : biology, ecology, and associated organismes.
Faculty of Sciences, University of Antananarivo, Antananarivo, Madagascar

2006 – 2007 **A.E.A , deepened studies certificate** in Biology, ecology and animal conservation
Biology of conservation, applied ecology, biology, genetics, parasitology, biostatistics, ethology, ecotoxicology
Faculty of Sciences, University of Antananarivo, Antananarivo, Madagascar

2004 – 2006 **Master** in Biology, ecology and animal conservation
Biology of conservation, applied ecology, biology, genetics, parasitology, biostatistics, animal physiology, biochemistry, ethology.
Faculty of Sciences, University of Antananarivo, Antananarivo, Madagascar

2001 – 2004 **University Diploma of Scientific Studies** (DUES)
Biology (cellular, animal, plant), genetics, statistics, biochemistry, animal physiology, mathematics, physics, thermodynamics, atomistics, paleontology.
Faculty of Sciences, University of Antananarivo, Antananarivo, Madagascar

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WORK EXPERIENCES

2022-*present*
Postdoctoral scholar**, University of Chicago**
-Studying the dynamics of Madagascar bat viruses in the Brook lab.

2018-2022
Research engineer**, Virology Unit, Institute Pasteur of Madagascar (IPM)**
-Coordinated bat-borne pathogens research for NIH grant with Dr. Cara Brook.
-Led SARS-Cov-2 whole genome sequencing for Bill and Melinda Gates Foundation project

2010
Consultant
-Herpetofauna assessment within the corridor forests of Tsaratanana-Anjanaharibe, northern Madagsacar.

TEACHING

Since 2020
- Acting as assistant lecturer in the Département of Zoology and Animal Biodiversity, Faculty of Sciences, University of Antananarivo, Madagascar.

Since 2018
- Training new intern on field data collection and sample laboratory analysis - Member of core instructors in Ecological and Epidemiological Modeling Madgascar (E2M2) annual training.

PUBLICATIONS

- Andrianiaina A*, Andry S*, Gentles A, Guth S, Héraud JM, **Ranaivoson HC**, Ravelomanantsoa NAF, Treuer T, and Brook CE. Reproduction, seasonal morphology, and juvenile growth in three Malagasy fruit bats. In Press. *Journal of Mammalogy.* Doi (pre-print): 10.1101/2021.10.28.466299.

- Kettenburg G, Kistler A, **Ranaivoson HC**, Ahyong V, Andrianiaina A, Andry S, DeRisi JL, Gentles A, Raharinosy V, Randriambolamanantsoa TH, Ravelomanantsoa NAF, Tato CM, Dussart P, Heraud JM, and Brook CE. Full genome *Nobecovirus* sequences from Malagasy fruit bats define a unique evolutionary history for this coronavirus clade. 2022. *Frontiers in Public Health* 10: 786060. doi: 10.3389/fpubh.2022.786060**.**

- Andriamandimby SF*, Brook CE*, Razanajatovo N, Randriambolamanantsoa TH, Rakotondramanga J-M, Rasambainarivo F, Raharimanga V, Razanajatovo IM, Mangahasimbola R, Razafindratsimandresy R, Randrianarisoa S, Bernardson B, Rabarison JH, Randrianarisoa M, Nasolo FS, Rabetombosoa RM, Ratsimbazafy A-M, Raharinosy V, Rabemananjara AY, **Ranaivoson HC**, Razafimanjato H, Randremanana R±, Heraud J-M±, and Dussart P±. Cross-sectional cycle threshold values reflect epidemic dynamics of COVID-19 in Madagascar. 2021. *Epidemics.* doi: 10.1016/j.epidem.2021.100533. **equal lead/ ±equal senior contributions*

- Wilkinson E, Giovanetti M, Tegally T, San JE, Lessels R, Cuadros D, Martin DP, Zekri A-RN…**Ranaivoson HC**, … de Oliveira T. A year of genomic surveillance reveals how the SARS-CoV-2 pandemic unfolded in Africa. 2021. *Science.* doi: 10.1126/science.abj4336.

- Randremanana R., Andriamandimby S, Rakotondramanga J.M., Razanajatovo N., Mangahasimbola R., Randriambolamanantsoa T., **Ranaivoson HC** et al. 2021. The COVID-19 Epidemic in Madagascar: clinical description and laboratory results of the first wave, March-September 2020. *Influenza and other respiratory virus Journal*, 15(4):457-468.

- Ramasindrazana, B., Rasoanoro, M., **Ranaivoson, H.C**., Randrianarivelojosia, M., Tortosa, P., et Goodman, S.M. **Sous presse**. Blood parasites of small mammals in Madagascar. *In The new natural history of Madagagascar*, ed. S. M. Goodman. Princeton University Press, Princeton, New Jersey.

- Ravelomanantsoa N.A.F., Guth S., Andrianiaina A, Andry A, Gentles A, **Ranaivoson H.C.**, Brook C.E. **2020.** The zoonotic potential of bat-borne coronaviruses. *Emerging Topics in Life Sciences*, 4 (4): 365-381.

- **Ranaivoson H.C.**, Héraud J.-M., Goethert H.K., Telford III S.R., Rabetafika L., et Brook C.E. **2019**. Babesial infection in the Madagascan flying fox, *Pteropus rufus* É. Geoffroy, 1803. *Parasites & Vectors*, 12(51):1-13.

- Brook C.E., **Ranaivoson H.C.**, Broder C.C., Cunningham A.A., Héraud J.M., Peel, A.J., Gibson, L., Wood J.L.N., Metcalf C.J., et Dobson A.P. **2019**. Disentangling serology to elucidate henipa- and filovirus transmission in Madagascar fruit bats. *Journal of Animal Ecology,* 88 (7) : 1001-1016.

- Brook, C.E. **Ranaivoson H.C.**, Andriafidison, D., Ralisata M., Razafimanahaka, J., Héraud J.M., Dobson A.P., et Metcalf C.J. **2019**. Population trends for two Malagasy fruit bats. *Biological Conservation,* 234 (November 2018): 165-171.

- Cumberlidge N., Razanabolana J.R., **Ranaivoson H.C.**, Randrianasolo H.H., Sayer C, Máiz-Tomé L., Van Damme D. et Darwall W.R.T. **2017**. Updated extinction risk assessments of Madagascar's freshwater decapod crustaceans reveal fewer threatened species but more Data Deficient species. *Malagasy Nature*, 12:32-41.

- Brook C.E., Bai Y., Yu E.O., **Ranaivoson H. C.**, Shin H., Dobson A.P., Metcalf C.J., Kosoy M.Y., Dittmar K. **2017**. Elucidating transmission dynamics and host-parasite-vector relationships for rodent-borne *Bartonella* spp. in Madagascar. *Epidemics*, 20:56-66.

- Brook C.E., Bai Y, Dobson A.P., Osikowicz L.M., **Ranaivoson H.C.**, Zhu Q., et al. **2015**. *Bartonella* spp. in fruit bats and blood-feeding ectoparasites in Madagascar. *PLoS Neglected Tropical Disease*, 9: e0003532.

- Rambeloson, V.R., **Ranaivoson H.C.** & de Chambrier A. **2012**. *Ophiotaenia lapata sp.* n. (Cestoda: Proteocephalidea) from Madagascar: a parasite of the endemic snake *Madagascarophis colubrinus* (Colubridae). *Revue suisse de zoologie,* 119(4): 547-559.

FUNDING

2014 – 2018: PhD Scholars « GIRARD », Institute Pasteur of Madagascar (IPM)
2015: African Graduate Student Research Fund, *American Society of Mammalogists* (ASM)
2015: Terrestrial Vertebrates grant from the National Science Foundation, *Malaria Research Coordination Network* (Malaria RCN).
2015: International Disease Dynamics and Data (I3D) Research Scholars Exchange Program

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COMPUTER
Programming : Python, Java, R, SPSS
3D Design : Blender
Multimedia : Adobe Photoshop, Adobe After Effect, Adobe Premier
Geographical Information System: ArcGIS 10.1, QGIS, CompeGPS
Bioinformatics: Ugene Unipro, Geneious, MEGA.