Marothi Peter LETSOALO

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**Phone**: +27 (81) 512-7839  
**Location**: Little Falls, Johannesburg

**Birthplace**: Mankweng, South Africa  
**Nationality**: South African  
**Gender**: Male  
**Civil Status**: Married

I am a biostatistician and data scientist contributing to people’s health through clinical research through with data and science. My passion is driven by a continuous need for precision public health as well as precision medicine. I have extensive experience in designing, analyzing, and reporting on various types of clinical trials and cohort studies, using advanced biostatistics and bioinformatic methods. I also have strong skills in data management and programming, as well as in writing scientific manuscripts and presenting statistical results. Recently acquired extensive skill in in pharmacometrics. I enjoy collaborating with multidisciplinary teams of scientists, and principal investigators, as well as mentoring and training junior statisticians. Highlight of my field of knowledge and technical skills:

**Field**  
Clinical Research | Drug Development | Clinical Trials | Biostatistics | Pharmacometrics | Data Science |  
**Skills**  
Statistical Programming, Analysis & Modelling (R, SAS) | Bioinformatics Analysis (R, Python) | Data Science & Machine Learning (R, Python) | Pharmacometrics (R, Phoenix, NONMEM) | Clinical Data Management & Processing (R, Python, SAS, SQL)

## Work Experience

**Senior Biostatistician, CAPRISA, Durban, South Africa (1/2021 to Present)**

Provide and participate in study design, sample size determination, randomization procedures, periodic reports, statistical plans, and statistical analysis on multiple clinical trials.

* Design and analysis of clinical trials.
* Co-author of scientific manuscripts.
* Statistical analysis and methodological input on clinical data.
* Supervision and training of junior statisticians.

**Research Data Manager, VLIR-OUS, University of Limpopo, South Africa (6/2016 to 3/2019)**

Played a key role as research data manager; extracting and analyzing complex data, while ensuring clean data demands long working hours and patience.

* Managed and analyzed complex data.
* Developed databases and performed data cleaning.
* Provided training and support for data collection and analysis.

**Junior Lecturer, University of Limpopo, South Africa (1/2015 to 5/2016)**

Interacted daily with students, teaching introductory statistics and crafting detailed study guides and lecture notes.

* Taught introductory statistics.
* Developed educational materials and assessed student performance.

**Faculty Researcher, University of Limpopo, South Africa (4/2012 to 12/2014)**

Conducted and completed evaluation programs of student data to explore students at risk.

* Conducted research and data analysis.
* Co-authored a peer-reviewed paper.

## Education

* **Pharmacometrics**, Pharmacometrics Africa
* **Data Science and Machine Learning**, MIT Schwarzman College of Computing, Cambridge, MA, USA
* **Master of Biostatistics (RSS accredited)**, Hasselt University, Diepenbeek, Belgium
* **Master of Science in Statistics**, University of Limpopo, Mankweng, South Africa
* **BSc (Hons) in Statistics**, University of Limpopo, Mankweng, South Africa
* **BSc in Applied Mathematics & Statistics**, University of Limpopo, Mankweng, South Africa

## Awards and Honors

* VLIR Scholarship for a Master in Biostatistics at UHasselt
* Second best development relevant master’s thesis, UHasselt 2020 in the category international student

## Certifications

Pharmacometrics (PMx Africa)| Data Science and Machine Learning (MIT) [Verify](https://olympus1.mygreatlearning.com/certificate/BYUCMIXV) | Clinical Trials Programming Using SAS [Verify](../../https://www.credly.com/users/marothi-letsoalo/badges) | Advanced Programmer for SAS 9[Verify](https://www.credly.com/users/marothi-letsoalo/badges) | Base Programmer for SAS 9 [Verify](https://www.credly.com/users/marothi-letsoalo/badges) | Statistical Business Analyst Using SAS 9 [Verify](https://www.credly.com/users/marothi-letsoalo/badges) | VIARES Clinical Research Data Management]() | Design and Interpretation of Clinical Trials (John Hopkins University) Verify | ICH Good Clinical Practice E6 (R2) Verify | Designing Big Data Healthcare Studies: Part I- [Verify](https://www.linkedin.com/learning/certificates/78c7b0a132e41f3518d293232ee3b52b5b843c047f9a6a2a01ec0b83f23efabe?trk=backfilled_certificate&lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base_certifications_details%3BV4ARm12XQYyft7U3GqS1%2Fw%3D%3D) | Part II-[Verify](https://www.linkedin.com/learning/certificates/0e42a8ad2d8798e85af0f0793871ece482fbab80e8ac4b70fb30c975d3c94962?trk=backfilled_certificate&lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base_certifications_details%3BV4ARm12XQYyft7U3GqS1%2Fw%3D%3D)

## Projects

* **CAPRISA Epidemic Intelligence Unit** (2022-present): Lead biostatistician.
* **AI-based HIV Prevention for Generation Z population** (2022-present): Project coordinator.

## Publications

Bodley, Nicola, Jienchi Dorward, Jessica Naidoo, Marothi Letsoalo, Kaminee Ramsaroop, Fathima Sayed, Yukteshwar Sookrajh, Paul K. Drain, and Nigel Garrett. 2023. “Diagnostic Accuracy of the Alere Afinion AS100 Point-of-Care Assay to Screen for Noncommunicable Diseases Among People Living With HIV.” *JAIDS Journal of Acquired Immune Deficiency Syndromes* 92 (1): e1–3. <https://doi.org/10.1097/qai.0000000000003098>.

Dhindayal, Sherishka, Marothi P. Letsoalo, and Tanuja N. Gengiah. 2022. “Mental Health Outcomes and Workplace Quality of Life Among South African Pharmacists During the COVID-19 Pandemic: A Cross-Sectional Study.” *Journal of Pharmaceutical Policy and Practice* 15 (1). <https://doi.org/10.1186/s40545-022-00463-7>.

Gordhan, Bhavna G., Astika Sewcharran, Marothi Letsoalo, Thilgavathy Chinappa, Nonhlanhla Yende-Zuma, Nesri Padayatchi, Kogieleum Naidoo, and Bavesh D. Kana. 2022. “Detection of Differentially Culturable Tubercle Bacteria in Sputum from Drug-Resistant Tuberculosis Patients.” *Frontiers in Cellular and Infection Microbiology* 12 (September). <https://doi.org/10.3389/fcimb.2022.949370>.

Lale Ngema, Senamile, Navisha Dookie, Rubeshan Perumal, Louansha Nandlal, Nikita Naicker, Marothi Peter Letsoalo, Max O’Donnell, Azraa Khan, Nesri Padayatchi, and Kogieleum Naidoo. 2023. “Isoniazid Resistance-Conferring Mutations Are Associated with Highly Variable Phenotypic Resistance.” *Journal of Clinical Tuberculosis and Other Mycobacterial Diseases* 33 (December): 100387. <https://doi.org/10.1016/j.jctube.2023.100387>.

Maseko, Thando Glory, Slindile Ngubane, Marothi Letsoalo, Santhuri Rambaran, Derseree Archary, Natasha Samsunder, Rubeshan Perumal, et al. 2023. “Higher Plasma Interleukin -6 Levels Are Associated with Lung Cavitation in Drug-Resistant Tuberculosis.” *BMC Immunology* 24 (1). <https://doi.org/10.1186/s12865-023-00563-2>.

Perumal, Rubeshan, Neda Bionghi, Camus Nimmo, Marothi Letsoalo, Matthew J. Cummings, Madeleine Hopson, Allison Wolf, et al. 2023. “Baseline and Treatment-Emergent Bedaquiline Resistance in Drug-Resistant Tuberculosis: A Systematic Review and Meta-Analysis.” *European Respiratory Journal* 62 (6): 2300639. <https://doi.org/10.1183/13993003.00639-2023>.

Perumal, Rubeshan, Kogieleum Naidoo, Anushka Naidoo, Marothi P. Letsoalo, Aliasgar Esmail, Ivan Joubert, Paolo Denti, et al. 2023. “The Impact of Enteral Feeding and Therapeutic Monitoring of Rifampicin with Dose Escalation in Critically Ill Patients with Tuberculosis.” *International Journal of Infectious Diseases* 126 (January): 174–80. <https://doi.org/10.1016/j.ijid.2022.11.033>.

Pillay, Nashlin, Gugulethu Favourate Mzobe, Marothi Letsoalo, Asavela Olona Kama, Andile Mtshali, Stanley Nzuzo Magini, Nikkishia Singh, et al. 2024. “Performance of Softcup® Menstrual Cup and Vulvovaginal Swab Samples for Detection and Quantification of Genital Cytokines.” *Journal of Immunological Methods* 528 (May): 113656. <https://doi.org/10.1016/j.jim.2024.113656>.

Qulu, Wenkosi Perez, Gugulethu Mzobe, Andile Mtshali, Marothi Peter Letsoalo, Farzana Osman, James Emmanuel San, Asavela Olona Kama, et al. 2023. “Metronidazole Treatment Failure and Persistent BV Lead to Increased Frequencies of Activated T- and Dendritic-Cell Subsets.” *Microorganisms* 11 (11): 2643. <https://doi.org/10.3390/microorganisms11112643>.

Setlhare, Boitumelo, Marothi Letsoalo, Siphathimandla Authority Nkabinde, Magugu Nkabinde, Gugulethu Mzobe, Andile Mtshali, Sobia Parveen, et al. 2024. “Corrigendum: An in Vitro Study to Elucidate the Effects of Product Nkabinde on Immune Response in Peripheral Blood Mononuclear Cells of Healthy Donors.” *Frontiers in Pharmacology* 15 (April). <https://doi.org/10.3389/fphar.2024.1401376>.