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EDUCATION

Doctoral Program (S-3)
Universitas Indonesia, Program Doktoral Fakultas Kesehatan Masyarakat
Januari 2026

Disertasi:
"Model Skrining Tuberkulosis Anak dengan Otomatisasi Sistem Skoring Berbasis *Machine learning* di Fasilitas Pelayanan Kesehatan Primer"

Supervisor: Prof. dr. Adang Bachtiar, MPH., D.Sc.
Promotor: Prof. Drs. Tris Eryando, MA.

Magister Biomedik (S-2)
Universitas Indonesia, Program Pascasarjana Ilmu Biomedik
Oktober 2016

Thesis:
"Hubungan Keberadaan *Cryptococcus neoformans* di Lingkungan Rumah Pasien Terinfeksi HIV dengan Kriptokokosis Meningeal"

Supervisor: Prof. Dr. dr. Retno Wahyuningsih, MS, Sp.ParK.
Dra. Wellyzar Sjamsuridzal, PhD., MSc.

Profesi Dokter (dr)
Universitas Trisakti, Program Profesi Dokter
April 2006

Sarjana Kedokteran (S-1)
Universitas Trisakti, Program Sarjana Kedokteran
Februari 2003

TEACHING EXPERIENCE

Universitas Trisakti, Jakarta, Indonesia 2011 to Present
Teaching, Department of Parasitology

- Contributor to the tropical infection sciences (IPT) module, diagnostic and therapeutic (DT-1) module, and gastro-hepato-pancreas (GHP) module, covering the following topics: General Parasitology and helminthology, Schistosomiasis, Trichomoniasis, Filariasis, Amoebiasis, Helminthiasis, Giardiasis, Taeniasis, Soil-transmitted helminths
- Basic clinical skills instructor
- Coordinator of module practicum
- Developed case scenarios, quizzes, exams, and homework

PUBLICATIONS

Journal Publications

Machrumnizar, M., Devita, A., Kartini, K., Anastasya, K. S., & Agustin, R. (2026). Soil-transmitted helminth co-infection and its association with nutritional status and diagnostic classification among children with pulmonary tuberculosis: A cross-sectional study. Recoletos Multidisciplinary Research Journal, 14(2), 67–77. https://doi.org/10.32871/rmrj2614.02.05

Machrumnizar, M., Eryando, T., Bachtiar, A., Kusumaratna, R.K., Meiyanti, M., Djuana, E., Hidayah, N., Alfiyyah, A. Understanding the epidemiology of TB-HIV co-Infection in Indonesia: Evidence from the 2023 national TB registry. BMJ Pub Health. **2025**, 003585.

Machrumnizar, M., Bachtiar, A., Kusumaratna, R.K. The Double Burden: A Bibliometric Analysis on Tuberculosis with Diabetes Mellitus Comorbidity. Jurnal Kesehatan Masyarakat. **2025**, 21(1): 35-45.

Machrumnizar, M., Yuliana, Y., & Bachtiar, A. Determining factors of lung tuberculosis among children in community health centers: A cross-sectional study. Multidisciplinary Science Journal. **2025**, 7(8): 2025376.

Yuliana, Khalif, M. I., Devita, A., & Machrumnizar, M. Analisis Pengaruh Gender terhadap Hasil Pengobatan TB-HIV di Lingkungan Pelayanan Kesehatan Primer Perkotaan Indonesia. Jurnal Ilmu Kesehatan Masyarakat. **2025**, 15(1): 22–31.

Tan, S., Machrumnizar, M., Yuliana, Y., Kusumaratna, R.K., Margo, E., Suyanto, J. MicroRNA miR-155 and miR-21 as Biomarkers in Active Pulmonary Tuberculosis and the Healing Process: A Mini Review. Current Biotechnology. **2025**, 14(3): 147-154.

Meiyanti, M., Bachtiar, A., Kusumaratna, R. K., Alfiyyah, A., Machrumnizar, M., & Pusparini, P. Tuberculosis treatment outcomes and associated factors: A retrospective study in West Nusa Tenggara, Indonesia. Narra J. **2024**, 4(3): e1660.

Machrumnizar, M., Bachtiar, A., Kusumaratna, R.K., Hidayah, N., Setyaningtyas, R.C., and Meiyanti. RISK FACTORS OF PULMONARY TUBERCULOSIS IN CHILDREN (0-14 YEARS): SYSTEMATIC LITERATURE REVIEW. Proceedings of the International Conference of Public Health. **2024**, 9(1): 1 -16.

Machrumnizar, M., and Tan, S. Neglected Tropical Paragonimiasis: A Review. South Asian Journal of Parasitology. **2024**, 7(1): 17-32.

Machrumnizar, M., Bachtiar, A., Kusumaratna, R.K., Suyanto, J. Impact of co-epidemic tuberculosis and diabetes mellitus on health-related quality of life: A review. Jurnal Aisyah: Jurnal Ilmu Kesehatan. **2023**, 8(4): 1383-94.

Tan, S., and Machrumnizar, M. Fish and Food-Fatale: Food-borne Trematode Opisthorchis viverrine and Cholangiocarcinoma. Helminthologia. **2023**, 60(4): 287-299.

Tan, S., and Machrumnizar, M., Kusumaratna, R. K., Suyanto, J. Faktor – faktor yang berhubungan dengan gejala depresi di kalangan perempuan yang melakukan pernikahan dini. Holistik Jurnal Kesehatan. **2023**, 17(4): 304-314.

Machrumnizar, M., Arif, R.M.D., Tan, S. Stress Influence on the Adverse Events Emergence after Coronavirus Disease (COVID-19) Vaccination. Letters in Applied NanoBioscience. **2023**, 12(4): 150.

Tan, S., Yuliana, Y., Arleen, D., Machrumnizar, M. Penyuluhan Kesehatan Demam Berdarah Dengue di Masa Pandemi COVID-19. AMMA: Jurnal Pengabdian Masyarakat. **2022**, 1(11): 1374-79.

Adnyana, P.S., and Machrumnizar, M. Skoring Coronary Artery Calcium pada Individu Usia Dewasa Akhir dan Lansia dengan Hipertensi. Jurnal Penelitian dan Karya Ilmiah Lembaga Penelitian Universitas Trisakti. **2023**, 8(2): 283 – 292

Tan, S., Machrumnizar, M., Kusumaratna, R., Suyanto, J. Diterminan Sosial-Ekonomi dan Kesehatan Mental pada Kaum Ibu di Kawasan Provinsi Bengkulu. PubHealth Jurnal Kesehatan Masyarakat. **2023**, 2(1): 22-29.

Machrumnizar, M., Devita, A., Yuliana, Y., and Tan, S. Application of Ziehl Neelsen Staining Method for Taenia spp. Eggs Differentiation. Iranian Journal of Parasitology, vol. 17, no. 3, **2022**, pp. 332-338.

Machrumnizar, M., Yuliana, Y., and Tan, S. Sugary Foods and Beverages Relationship to Fungal Colonization and Oral Hygiene in School Children. Letters in Applied NanoBioScience. **2023**, 12(2): 42.

Machrumnizar, M., Adawiyah, R., Natriana, T., Imran, D., Muslim, M., Sjamsuridzal, W., Wahyuningsih, R. Molecular Identification of Cryptococcus neoformans Isolates from House Environments of HIV-Infected Patients in an Urban Area, Indonesia: A First Report. Makara Journal of Science. **2022**, 26(2): 79-88.

Machrumnizar, M., and Tan, S. Penyuluhan Tentang Kesehatan Gigi dan Mulut pada Anak Sekolah Dasar. AMMA: Jurnal Pengabdian Masyarakat. **2022**, 1(5): 390-393.

Tan, S., and Machrumnizar, M. Peranan Musca domestica sebagai Vektor Mekanik Telur Infektif Ascaris lumbricoides. Jurnal Penelitian dan Karya Ilmiah. **2018**, 2(1): 1-13.

Machrumnizar, M., Sjamsuridzal, W., Wahyuningsih, R. Cryptococcus neoformans: Ekologi, Faktor virulensi, Patogenesis, dan Identifikasi. Majalah Kedokteran UKI. **2016**, 32(2): 100-111.

Monograph

Machrumnizar, M., and Tan, S. Helminthology: Infeksi Trematoda. Juli **2024**.

PRESENTATIONS

Poster Presentation, "Isolation of Cryptococcus neoformans from HIV-infected patient home environment in urban area, Indonesia, A first report," Asean Neglected Tropical Disease Conference in Khon Kaen (NTDASIA 2016), Thailand, January 11-15, 2016.

Poster Presentation, "Comparison of Conventional Methods with Integral System Yeasts Plus to Identify Environmental Isolates of Cryptococcus neoformans," The 6th Asia Pacific Society for Medical Mycology Congress, Kuta-Bali, Indonesia, October 20-22, 2016.

Poster Presentation, "Identifying VEGF-460 Gene Polymorphisms in Filariasis Patients in South Borneo, Indonesia," Joint International Tropical Medicine Meeting (JITMM), Bangkok, Thailand, December 7-9, 2016.

Poster Presentation, "Correlation of clinical and environmental isolates of Cryptococcus neoformans in urban area, Indonesia," Joint International Tropical Medicine Meeting (JITMM), Bangkok, Thailand, December 6-8, 2017.

Oral Presentation, "Lead and Selenium Level among Lymphatic Filariasis Subject: Where does the Lead come from?" Lawa 2018: International Conference on Cellular and Molecular Biology of Neglected Tropical Diseases, Khon Kaen, Thailand, March 21-22, 2018.

Oral Presentation, "Risk factors of Pulmonary Tuberculosis in Children (0 – 14 Years): Systematic Literature Review", International Conference of Public Health, Bangkok, Thailand, August 15-16, 2024.

PEER REVIEWS

Frontiers in Public Health. Decrease in the reported incidence of bacteriologically confirmed pulmonary tuberculosis in Hunan Province, China between 2009 and 2023: A joinpoint regression and age-period-cohort model analysis. 2025.

Vetenary World. Differential diagnosis of opisthorchiasis and metorchiasis in fish. 2025.

Infection and Drug Resistance. Cryptococcosis in Southern China: Insights from a Six-Year Retrospective Study in Eastern Guangdong. Original Research. 2023.

Infection and Drug Resistance. Timing of Whole Lung Lavage in Autoimmune Pulmonary Alveolar Proteinosis with Concurrent Opportunistic Infection: A Case Report and Systematic Review. Case Report. 2025.

Infection and Drug Resistance. Comparing the Performance of Two Cryptococcal Antigen Detection Tests: Chemiluminescence vs Colloidal Gold Methods. Original Research. 2024.

Trends in Sciences. Molecular Dynamics Simulation of Bioactive Compounds from Moringa oleifera Leaf Powder Extract as Antidiabetic by Inhibiting α-Amylase and α-Glucosidase Enzymes. 2025.

Journal of Multidisciplinary Healthcare. Psychometric properties of self-reported measures of dietary adherence in persons with type 2 diabetes mellitus: a systematic review. Review. 2025.

Risk Management and Healthcare Policy. Exploring Health-Related Quality of Life and Correlates Among Patients with Type 2 Diabetes Mellitus Attending Primary Health Centers in Aljouf Province, Saudi Arabia: A Multi-Site Cross-Sectional Study. Original Research. 2025.

Risk Management and Healthcare Policy. Concomitant of Cryptococcal Meningitis and COVID-19 in a Female Patient with Primary Nephrotic Syndrome and Type 2 Diabetes. Case Report. 2024.