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Gut environment and socioeconomic status: a study of children in urban area of Makassar

Amaruddin, A.I.

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CURRICULUM VITAE

Aldian Irma Amaruddin was born in Ujung Pandang, Indonesia, on 21st of October 1985. She completed her secondary education in SMUN 17 Makassar in 2003, and in the same year she enrolled in the Faculty of Medicine at Hasanuddin University (FKUH), Indonesia. In December 2008, she obtained her medical degree. And in June 2009, she started working as a GP in a remote area under the PTT Program of Ministry of Health. Under this program, she was appointed as GP in Puskesmas Pembantu Kaledupa in Wakatobi Island (June-December 2009) and in Puskesmas Poli-polia, Kolaka Regency (December 2009 – November 2010). In December 2010, she moved back to FKUH and was employed as a lecturer at the Faculty of Medicine.

During the first two years of her academic career, she was involved in the Medical Education Unit and the Student Assessment Unit. In 2012, she also became involved in the development of Quality Assurance Unit of the Faculty of Medicine. In 2014, she was assigned as a lecturer to the Department of Parasitology at FKUH.

In December 2013, she was selected as a PhD candidate at Leiden University, which was funded by the Indonesian DIKTI program (2013-2016) and by Leiden University (2017). For her PhD, she worked on two projects in urban Makassar: 1) BCG scar responses in infants from high and low socioeconomic status families (2014-2016), and 2) intestinal permeability in helminth infected children (2017-2021). During her PhD, she was supervised by Professor Maria Yazdanbakhsh and Dr. Erliyani Sartono of Leiden University Medical Center and by Dr. Sitti Wahyuni and Dr. Firdaus Hamid.

In conducting these projects, she collaborated with Dr Romy Zwittink and Professor Ed Kuijper from Center for Microbiome Analyses and Therapeutics (CMAT), Dr. Kaatje Lenaerts and Dr Hans HM Eijk from Maastricht University and Professor Ronald Van Ree from University of Amsterdam.

After completion and submission of her PhD thesis, she returned to her post as a lecturer and will direct research at the Department of Parasitology. Currently, she is also involved in Clinical Epidemiology, Research Development and Publication (CRP) Unit of FKUH. In addition, to ensure academic quality at FKUH, she was appointed as Secretary of Quality Assurance Unit of FKUH (2021-2022). She was recently appointed as the Manager of Vice Dean of Planning, Finance and Resources at the Faculty (2022 till present).

This year, she would like to pursue a new path as a clinician and therefore she is starting her residency at the Department of Internal Medicine of Faculty of Medicine, Hasanuddin University.

LIST OF PUBLICATIONS

Amaruddin, A. I., Koopman, J. P. R., Muhammad, M., Lenaerts, K., van Eijk, H. M. H., Brienens, E. A. T., Geelen, A. R., van Lieshout, L., Wahyuni, S., Kuijper, E. J., Zwitterink, R. D., Hamid, F., Sartono, E., & Yazdanbakhsh, M. (2022). Intestinal permeability before and after albendazole treatment in low and high socioeconomic status schoolchildren in Makassar, Indonesia. *Sci Rep*, 12(1), 3394. <https://doi.org/10.1038/s41598-022-07086-7>

van Dorst, M., Azimi, S., Wahyuni, S., **Amaruddin, A. I.**, Sartono, E., Wammes, L. J., Yazdanbakhsh, M., & Jochems, S. P. (2022). Differences in Bacterial Colonization and Mucosal Responses Between High and Low SES Children in Indonesia. *Pediatr Infect Dis J*, 41(6), 496-506. <https://doi.org/10.1097/inf.0000000000003525>

Amaruddin, A. I., Koopman, J. P. R., Muhammad, M., Versteeg, S. A., Wahyuni, S., van Ree, R., Yazdanbakhsh, M., Hamid, F., & Sartono, E. (2021). Bee- and Wasp-Venom Sensitization in Schoolchildren of High- and Low-Socioeconomic Status Living in an Urban Area of Indonesia. *Int Arch Allergy Immunol*, 182(11), 1036-1045. <https://doi.org/10.1159/000516155>

Wahyuni, S., van Dorst, M., **Amaruddin, A. I.**, Muhammad, M., Yazdanbakhsh, M., Hamid, F., Koopman, J. P. R., & Sartono, E. (2021). The relationship between malnutrition and T(H) 2 immune markers: a study in school-aged children of different socio-economic backgrounds in Makassar, Indonesia. *Trop Med Int Health*, 26(2), 195-203. <https://doi.org/10.1111/tmi.13513>

Hamid, F., Munawir, M., **Amaruddin, A. I.**, Hapsari, B. K., Sultan, A. R., & Amiruddin, D. (2020). Prevalence of Fecal Carriage of Extended-Spectrum β -Lactamase-Producing Enterobacteriaceae Among School Children in South Sulawesi, Indonesia. *ARCHIVES OF CLINICAL INFECTIOUS DISEASES*, 15(2), -. <https://www.sid.ir/en/Journal/ViewPaper.aspx?ID=762065>

Amaruddin, A. I., Hamid, F., Koopman, J. P. R., Muhammad, M., Brienens, E. A., van Lieshout, L., Geelen, A. R., Wahyuni, S., Kuijper, E. J., Sartono, E., Yazdanbakhsh, M., & Zwitterink, R. D. (2020). The Bacterial Gut Microbiota of Schoolchildren from High and Low Socioeconomic Status: A Study in an Urban Area of Makassar, Indonesia. *Microorganisms*, 8(6). <https://doi.org/10.3390/microorganisms8060961>

Amaruddin, A. I., Wahyuni, S., Hamid, F., Chalid, M. T., Yazdanbakhsh, M., & Sartono, E. (2019). BCG scar, socioeconomic and nutritional status: a study of newborns in urban area of Makassar, Indonesia. *Trop Med Int Health*, 24(6), 736-746. <https://doi.org/10.1111/tmi.13232>

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