

Staff Handbook

Name	<i>Nuruliarizki Shinta Pandupuspitasari S.Pt., M.Si., M.Sc., Ph.D.</i>		
Post	<i>Animal Nutrition and Feed Science</i>		
Academic career	<i>Visiting Researcher</i>	<i>Massachusetts Institute of Technology</i>	<i>2023</i>
	<i>Postdoctoral Research Fellow</i>	<i>Tongji Hospital</i>	<i>2019</i>
	<i>Ph.D in Animal Breeding, Genetics, and Reproduction</i>	<i>Huazhong Agriculturaal University</i>	<i>2016</i>
	<i>Master in Animal Science</i>	<i>Huazhong Agriculturaal University</i>	<i>2012</i>
	<i>Master in Animal Science</i>	<i>Universitas Diponegoro</i>	<i>2012</i>
	<i>Bachelor in Animal Husbandary</i>	<i>Universitas Diponegoro</i>	<i>2009</i>
Employment	<i>Assistant Professor</i>	<i>Universitas Diponegoro</i>	<i>2021-present</i>
Research and development projects over the last 5 years	<i>Dr. Nuruliarizki Shinta Pandupuspitasari is an Assistant Professor at Diponegoro University, Indonesia, specializing in animal biotechnology and microbiome research. She is a recognized expert in metagenomics and microbial applications, Dr. Shinta's research focuses on developing sustainable livestock solutions through advanced NGS technologies, CRISPR/Cas9 genome editing, and Fecal Microbiota Transplantation (FMT). She has led key projects including EU FP7 Marie Curie Actions on dairy cow immunity, two RIIM (Riset dan Inovasi untuk Indonesia Maju) initiatives, and participates in the TUNE-ERASMUS program. Her innovations include patented microbiota transplantation techniques and methane-reduction strategies for ruminants.</i> <i>With over 30 publications in journals like BMC Microbiology and Archives of Toxicology, she regularly presents at international forums such as the Nature Conference on Inflammatory Diseases (2017) and Tongji Diabetes Summit (2018). Beyond research, she implements community programs aligning livestock production with SDGs, improving rural livelihoods across Indonesia. Dr. Shinta bridges cutting-edge science with practical agriculture, positioning Indonesia at the forefront of sustainable animal production.</i>		
Industry collaborations over the last 5 years	<i>A genomic approach to increase disease resistance in dairy cows through improvement of innate immunity</i> <i>EU FP7 Program, Marie Curie Action</i> <i>Fulbright Visiting Scholar</i> <i>Massachusetts Institute of Technology (MIT), USA</i>		

	<i>Application of Metagenomic Sequencing Technology to Increase Dairy Cow Production in Coastal Regions</i> Universitas Diponegoro <i>Investigation and Selection of Indigenous Goat Microbiota for Low Methane Emission and High Productivity</i> Universitas Diponegoro <i>FMT-based Microbiota Feed Manipulation</i> LPDP Indonesia
Patents and proprietary rights	Year
Important publications over the last 5 years	- Lathifa, A.D., Pandupuspitasari, N.S., Khan, F.A., Ali, A., Fadillah, N.A.M., Prasetyono, B.W.H.E. (2025). Improved immune status by fecal microbiota transplant mediated gut microbiota modulation in late lactation cows in a low land. <i>Journal of the Indonesian Tropical Animal Agriculture</i>. 50(2), pp. 131–143. (10.14710/jitaa.50.2.131-143) - Muktiani, A., Widiyanto, W., Pandupuspitasari, N.S. (2025). Correction to: Supplementation of Zinc Palm Oil Soap Improves Feed Fermentability and Unsaturated Fatty Acid Profile in Rumen Liquid. <i>Tropical Animal Science Journal</i>, 48(3). (10.5398/tasj.2025.48.3.279) - Wu, D., Li, X., Khan, F.A., Yuan, C., Pandupuspitasari, N.S., Huang, C., Sun, F., Guan, K. (2024). tRNA modifications and tRNA-derived small RNAs: new insights of tRNA in human disease. <i>Cell Biology and Toxicology</i>. 40(1), 76. (10.1007/s10565-024-09919-9) - Lestari, D.A., Sutopo, S., Kurnianto, E., Dagong, M.I.A., Bugiwati, S.R.A., Mamat-Hamidi, K., Yakubu, A., Pandupuspitasari, N.S., Agusetyaningsih, I., Kamila, F.T., Setiaji, A. (2024). Quantifying of morphological character for Kacang goat using principal component factor analysis. <i>Journal of the Indonesian Tropical Animal Agriculture</i>. 49(4), pp. 316–322. (10.14710/jitaa.49.4.316-322) - Ahmed, B., Khan, F.A., Pandupuspitasari, N.S., Yousaf, M.R., Setiaji, A. (2024). Methane Emissions and Dry Matter Intake under Impact of <i>Saccharomyces cerevisiae</i> Supplementation on Dairy Cow. <i>Pakistan Journal of Agricultural Research</i>. 37(3), pp. 260–266. (10.17582/journal.pjar/2024/37.3.260.266) - Setiaji, A., Lestari, D.A., Pandupuspitasari, N.S., Agusetyaningsih, I., Sutopo, S., Kurnianto, E. (2024). Crossbreeding experiment on Indonesian local rabbits: the heterosis effect on growth performance. <i>Archives Animal Breeding</i>. 67(2), pp. 231–236. (10.5194/aab-67-231-2024) - Muktiani, A., Widiyanto, W., Pandupuspitasari, N.S. (2024). Supplementation of Zinc Palm Oil Soap Improves Feed Fermentability and Unsaturated Fatty Acid Profile in Rumen Liquid. <i>Tropical Animal Science Journal</i>, 47(3), pp. 371–380. (10.5398/tasj.2024.47.3.371) - Pandupuspitasari, N.S., Khan, F.A., Setiaji, A., Lestari, D.A., Shujun, Z. (2023). SNPs in splicing region and miRNA binding region of <i>Bos taurus</i> TREM-1 gene reveals its association with mastitis. <i>Journal of the Indonesian Tropical Animal Agriculture</i>, 48(4), pp. 306–314. (10.14710/jitaa.48.4.306-314) - Setiaji, A., Lestari, D.A., Pandupuspitasari, N.S., Agusetyaningsih, I., Khan, F.A. (2023). Genetic characteristics of complete mtDNA genome sequence

	of Indonesian local rabbit (<i>Oryctolagus cuniculus</i>). <i>Journal of Genetic Engineering and Biotechnology</i>, 21(1), 96. (10.1186/s43141-023-00546-1) - Khan, F.A., Panduspitasari, N.S., Huang, C., Negara, W., Ahmed, B., Putri, E.M., Lestari, P., Priyanto, T.P., Prima, A., Restitrisnani, V., Surachman, M., Akhadiarto, D., Darmawan, I.W.A., Wahyuni, D.S., Herdis, H. (2023). Unlocking gut microbiota potential of dairy cows in varied environmental conditions using shotgun metagenomic approach. <i>BMC Microbiology</i>. 23(1), 344. (10.1186/s12866-023-03101-7) - Panduspitasari, N.S., Khan, F.A., Huang, C., Ali, A., Yousaf, M.R., Shakeel, F., Putri, E.M., Negara, W., Muktiani, A., Prasetyono, B.W.H.E., Kustiawan, L., Wahyuni, D.S. (2023). Recent advances in chromosome capture techniques unraveling 3D genome architecture in germ cells, health, and disease. <i>Functional and Integrative Genomics</i>. 23(3), 214. (10.1007/s10142-023-01146-5) - Wu, D., Panduspitasari, N.S., Zhang, K., Tang, Y., Khan, F.A., Li, H., Huang, C., Sun, F. (2023). Cytoskeletal orchestration of glucose uptake in Sertoli cell to support efferocytosis of apoptotic germ cells. <i>Biochimica et Biophysica Acta - Molecular Cell Research</i>. 1870(4), 119434. (10.1016/j.bbamcr.2023.119434) - Ahmad, H.I., Khan, F.A., Khan, M.A., Imran, S., Akhtar, R.W., Panduspitasari, N.S., Negara, W., Chen, J. (2023). Molecular Evolution of the Bactericidal/Permeability-Increasing Protein (BPIFA1) Regulating the Innate Immune Responses in Mammals. <i>Genes</i>. 14(1), 15. (10.3390/genes14010015) - Prasetyono, B.W.H.E., Widiyanto, W., Panduspitasari, N.S. (2022). Gut Microbiota Profiles in Dairy Cattle from Highland and Coastal Regions Using Shotgun Metagenomic Approach. <i>Biomed Research International</i>, 2022, 3659052. (10.1155/2022/3659052) - Farmanullah, F., Gouda, M., Min, Z., Sutong, X., Kakar, M.U., Khan, S.U., Salim, M., Khan, M., Rehman, Z.U., Talpu, H.S., Khan, F.A., Panduspitasari, N.S., Shujun, Z. (2021). The variation in promoter sequences of the Akt3 gene between cow and buffalo revealed different responses against mastitis. <i>Journal of Genetic Engineering and Biotechnology</i>. 19(1), 164. (10.1186/s43141-021-00258-4)		
Activities in specialist bodies over the last 5 years	<i>Organisation</i> Alumni Huazhong Agricultural University <i>Forum Ilmiah Diaspora Indonesia – BRIN</i>	<i>Role</i> President of Alumni Association Indonesia Keynote Speaker	<i>Period</i> 2016-present 2023