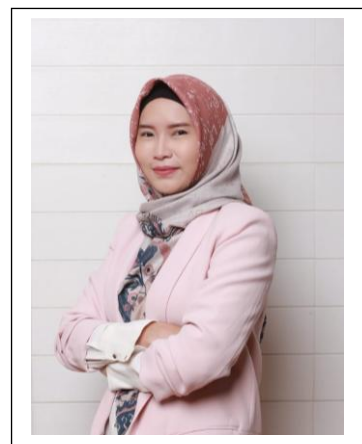


Curriculum Vitae

Name : Nuruliarizki Shinta Pandupuspitasari S.Pt., M.Sc., M.Si., Ph.D
Date of birth : Brebes, 23 August 1987
Address : Jl. Erowati Raya no.57A Semarang
Designation : Assistant Professor, Universitas Diponegoro (Feb. 2021- Present)
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Current Employment

1. Assistant Professor, Animal Science Department, Faculty of Animal and Agricultural Sciences, Universitas Diponegoro, Semarang, Indonesia (Feb. 2021- present)
2. International Office, Faculty of Animal and Agricultural Sciences, Universitas Diponegoro, Semarang, Indonesia (2022- present)

Educational Qualification

Degree	University	Granted Year	CGPA
PhD	Huazhong Agricultural University China	30 June 2016	4.0/4.0
MSc	Huazhong Agricultural University China	30 June 2012	4.0/4.0
MSi	Diponegoro University Indonesia	22/10/ 2012	4.0/4.0
BSc	Diponegoro University Indonesia	23 April 2009	3.7/4.0

Scholarships/Awards

1. Huazhong Agricultural University President Scholarship for PhD (2012-2016)
2. Superior Scholarship from Higher Education Department, Ministry of Education Indonesia For Masters (2010-2012)
3. Fulbright Visiting Scholar MIT USA (2022-2023)
4. Visiting Professor MIT USA (August- Sept 2025)

PhD Dissertation

Role of TREM-1 Gene in Immunity Against Inflammatory Diseases

MS Thesis

Effect of Diludine on Performance and Antioxidative Status of Transition Cows

Research Projects as PI

1. Microbiome Diversity at Various Spots of Gastrointestinal Tract and Its Functional Association in Indigenous Goats From Central Java, Indonesia
2. Application of Fermented Banana, Peel by Averrhoa Bilimbi Fruit Filtrate Improves Growth Performance, Immunity, and Meat Quality in Broiler
3. The Invisible Allies: Microbiomes Driving Sustainable Food Production

As PI in 2023:

1. Manipulasi Pakan Berbasis Mikrobiota melalui Aplikasi FMT (Fecal Microbiota Transplantation) untuk Produksi Ternak yang Efisien (RIIM)
2. Investigation and Selection of Indigenous Goat Microbiota for Low Methane Emission and High Productivity

As member in 2025:

1. Karakteristik nutritif dan fungsional daging ayam Kedu dibandingkan dengan daging ayam broiler dalam kondisi stres panas
2. Assessment of PfRh5-Based Malaria Vaccine Efficacy in an Asymptomatic Rural Community in Purworejo Menoreh Hill
3. Spatial Microbiome Diversity and Its Functional Association in Local Indonesian Tropical Goats'
4. Identifikasi Profil Fisiologis Saluran Pencernaan: Inovasi untuk Menunjang Produktivitas Ayam Lokal
5. Decoding the Microbiome of Indonesian Chicken
6. Prevalence and Antimicrobial Resistance of Extended Spectrum Beta-lactamase (ESBL) producing Escherichia coli from Chicken Meat in Indonesia

As member in 2024:

1. Evaluasi Enzim Mikrobial Rumen dan Bakteri Asam Laktat untuk Proses Biokonversi Limbah Biomassa Lignoselulosa Pertanian-Peternakan Menjadi Bioetanol (RIIM)

Other Research Projects Carried out

6. The EU FP7 Program, Marie Curie Action (A genomic approach to increase disease resistance in dairy cows through improvement of innate immunity)
7. Anastasis a novel cell survival mechanism to rescue beta cells in autoimmune diabetes
8. Investigation and Selection of Indigenous Goat Microbiota for Low Methane Emission and High Productivity
9. Comparison of microbial populations that play a role in increasing milk fat production in goats supplemented with protected oil
10. Microbiota-Based Feed Manipulation Through Applications FMT (Fecal Microbiota Transplantation) for Efficient Livestock Production

11. The Effectiveness of Encapsulation of Herbs (*Peperomia pellucida*) to Increase the Productivity of Broiler
12. Application of Metagenomic Sequencing Technology to Increase The Performance of Dairy Cow Production in Coastal Regions
13. Genetic Merit of Indonesian Local Rabbit
14. Increasing Food Self-Sufficiency in Urban Fringe Areas through Cultivating Dairy Goats with Feed based on Black Soldier Fly (BSF) from the results of the bioconversion process of organic waste
15. Development of Black Soldier Fly-Based Milk Replacer to Increase Efficiency in the Rearing Program of Dairy Goats

Intellectual Property Rights

1. Dairy cow Fecal Microbiota Transplantation procedure
2. Unlocking Gut Microbiota Potential of Dairy Cows in Varied Environmental Conditions Using Shotgun Metagenomic Approach
3. Calf Rearing Management
4. Genetic Characteristic of Complete Mt-DNA Genome Sequence of Indonesian Local Rabbit

Experience

1. Postdoctoral Fellowship at Tongji Hospital Wuhan China
2. Fulbright Visiting Scholar 2022-2023 at Massachusetts Institute of Technology
3. Assistant Professor at Faculty of Animal and Agricultural Sciences, Diponegoro University

Techniques Learned

1. Metagenomics, Metatranscriptomics
2. Animal Cell culture including stem cell
3. Basic Molecular Biology techniques (Plasmid extraction, Plant/Animal DNA/RNA extraction, Gel electrophoresis, PCR, qPCR and western blot, qPCR)
4. Advance Molecular Biology Techniques Co IP, IB, IF, Flow cytometry
5. Basic Microbiological techniques (Media preparation, Agar Well Diffusion Assay, ELISA etc.)
6. Advance cloning and genome editing techniques CRISPR/Cas9.
7. In vivo recombinant DNA technology techniques Cre/Loxp system.
8. Experience in handling animal models.

Conference Proceedings

1. Insilico Analysis Of Functional Nssnp In Bovine Trem-1 Gene In Immunity. Nature Conference on Inflammatory Diseases. Beijing September 17-20, 2017.
2. Methylation sites of UBC9 knockout mice leads to type 1 diabetes. *Singapore Symposium on Metabolic Diseases. 2017.*
3. SUMOylation sites of UBC9 knock out mice. *4th Tongji Diabetes summit Meeting. 2018.*
4. Comparative gut microbiota analysis of industrially pollutes and cleaner regions. International Seminar on Sustainable Ruminant and Poultry Production in the Tropics. 2021

Co-curricular and Extra-Curricular Activities

1. Remained active member of Department of Research and Development for International Students in Volunteer Cell of Huazhong Agricultural University Wuhan
2. Participated in China exploration competition among all international students representing Huazhong Agricultural University Wuhan China at national level
3. Slected as president Alumni association Indonesia for Huazhong Agricultural University
4. Performed and served as organizer in New year Gala of Huazhong Agricultural University Wuhan China (2010-2016) in various role

Selected Community Services

1. Management of Sheep Raising to Increase the Productivity and Welfare of Farmers in Jagapura Village, Kersana District, Brebes Regency
2. Health Problems in Quail and Their Prevention in Bawu Village, Kemusu District, Boyolali Regency
3. Maintenance of Beef Calves in Sukorejo Village, Sambirejo District, Sragen Regency
4. Provision of local feed-based heifer feed in Sukorejo Village, Kec. Sambirejo Kab. Sragen to Support SDG's
5. Handling of Livestock Products Related to PMK in Livestock Farmer Group Margo Mulyo Dukun Dungus Dusun Mundu
6. Introduction of Complete Feed Based on Agricultural Plant By-Products and the Agricultural Industry for Beef Cattle Breeders in Pangon Maliter, Jepara Regency
7. Formulation of sheep rations based on local raw materials in Batang Regency
8. Formulation of sheep rations based on local raw materials in Blado District, Batang Regency for achieving SDGs goals
9. Increasing the productivity of beef cattle with probiotic supplementation at the Rejo Makmur Summit, Sumurejo Village, Gunungpati District, Semarang City
10. Counseling on Prevention, Handling and Treatment of Mouth and Nail Disease in Bendung Village, Semin District, Gunungkidul Regency, Special Region of Yogyakarta

Selected Publications (Scopus h index 14)

1. Wu, D., Zeng, H., Tan, J., Xu, Q., Khan, F.A., Pandupuspitasari, N.S., Yang, S. and Huang, C., 2025. Repurposing Artemisinin-Based Drugs from Antimalarial to Pan-Therapeutic: Pharmacological Promise and Therapeutic Challenges. *Drug Design, Development and Therapy*, pp.9199-9226.
2. Wu D, Xu Q, Wu S, Tan J, Khan FA, Pandupuspitasari NS, Huang C. Pursuing healthy aging and longevity through natural product and stem cell-driven rejuvenation. *Biochem Pharmacol*. 2025 Sep 23;117359. doi:10.1016/j.bcp.2025.117359.
3. Wu D, Zeng H, Tan J, Xu Q, Khan FA, Pandupuspitasari NS, Yang S, Huang C. Repurposing Artemisinin-Based Drugs from Antimalarial to Pan-Therapeutic:

Pharmacological Promise and Therapeutic Challenges. *Drug Des Devel Ther.* 2025;19:9199-9226. <https://doi.org/10.2147/DDDT.S545163>

4. Tan J, Xu Q, Pandupuspitasari NS, **Khan FA**, Wu D, Sun F, Huang C. Non-coding RNAs-glycolysis axis in cancer therapy resistance: Insight into mechanism to therapeutic solution. *Biochem Pharmacol.* 2025 Sep 1:117286. doi: 10.1016/j.bcp.2025.117286.
5. Khan, F.A., **Pandupuspitasari, N.S.**, Huang, C. et al. Unlocking gut microbiota potential of dairy cows in varied environmental conditions using shotgun metagenomic approach. *BMC Microbiol* 23, 344 (2023). <https://doi.org/10.1186/s12866-023-03101-7>.
6. Xu, Q., Wu, D., Tan, J., Khan, F. A., Pandupuspitasari, N. S., & Huang, C. (2025). Therapeutic Implications of Traditional Chinese Medicine in Clinically Relevant Diseases: Perspectives From microRNA-Modulated Apoptotic Signaling. *Drug Design, Development and Therapy*, 19, 6719–6749. <https://doi.org/10.2147/DDDT.S511521>
7. Khan, F.A., Ali, A., Wu, D., Huang, C., Zulfiqar, H., Ali, M., Ahmed, B., Yousaf, M.R., Putri, E.M., Negara, W., Imran, M., and **Pandupuspitasari N.S.** 2024. Editing microbes to mitigate enteric methane emissions in livestock. *World Journal of Microbiology and Biotechnology*, 40(10), pp.1-17.
8. Ahmed, B., Setiaji, A., Praharani, L., Khan, F.A., **Pandupuspitasari, N.S.**, Sholikin, M.M., Negara, W., Ali, A., Yousaf, M.R., Zulfiqar, H. and Munawar, A., 2024. Unlocking insights into *Saccharomyces cerevisiae* and milk yields: A meta-analysis. *Adv. Anim. Vet. Sci.*, 12(8), pp.1517-1524.
9. Ali, A., Khan, F.A., Di, W., Chunjie, H., Yousaf, M.R., Ahmed, B., Shakeel, F., **Pandupuspitasari, N.S.**, Negara, W. and Prasetyono, B.W.H.E., 2024. Analysis of diversity and distribution of antibiotic resistance genes in Holstein Friesian dairy cattle feces by shotgun metagenomic approach. *Adv. Anim. Vet. Sci.*, 12(8), pp.1465-1473.
10. Wu, D., Zhang, K., Guan, K., Khan, F.A., **Pandupuspitasari, N.S.**, Negara, W., Sun, F. and Huang, C., 2024. Future in the past: paternal reprogramming of offspring phenotype and the epigenetic mechanisms. *Archives of Toxicology*, pp.1-19.
11. D. Wu, K. Zhang, F.A. Khan, **N.S. Pandupuspitasari**, K. Guan, F. Sun, and C. Huang. 2024. A comprehensive review on signaling attributes of serine and serine metabolism in health and disease, *International Journal of Biological Macromolecules*. <https://doi.org/10.1016/j.ijbiomac.2024.129607>.
12. Ali A, Khan FA, Di W, Chunjie H, Yousaf MR, Ahmed B, Shakeel F, **Pandupuspitasari NS**, Negara W, Prasetyono BWHE (2024). Analysis of diversity and distribution of antibiotic resistance genes in Holstein Friesian dairy cattle feces by shotgun metagenomic approach. *Adv. Anim. Vet. Sci.*, 12(8):1465-1473.
13. Ahmed B, Setiaji A, Praharani L, Khan FA, **Pandupuspitasari NS**, Sholikin MM, Negara W, Ali A, Yousaf MR, Zulfiqar H, Munawar A (2024). Unlocking insights into *Saccharomyces cerevisiae* and milk yields: A meta-analysis. *Adv. Anim. Vet. Sci.*, 12(8):1517-1524.

14. **Pandupuspitasari, 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. and Kustiawan, L., 2023. Recent advances in chromosome capture techniques unraveling 3D genome architecture in germ cells, health, and disease. *Functional & Integrative Genomics*, 23(3), p.214.
15. Setiaji, A., Lestari, D.A., **Pandupuspitasari, N.S.**, Agusetyaningsih, I. and Khan, F.A., 2023. Genetic characteristics of complete mtDNA genome sequence of Indonesian local rabbit (*Oryctolagus cuniculus*). *Journal of Genetic Engineering and Biotechnology*, 21(1), p.96.
16. **Nuruliarizki Shinta Pandupuspitasari**, Faheem Ahmed Khan, Chun-Jie Huang, Xing Chen, Shujun Zhang: Novel Attributions of TREMs in Immunity. *Current issues in molecular biology* 01/2016; 20:47-54.
17. Faheem Ahmed Khan, **Nuruliarizki Shinta Pandupuspitasari**, Chun-Jie Huang, Xingjie Hao, ShuJun Zhang: SUMOylation: A link to future therapeutics. *Current issues in molecular biology* 08/2015; 18(1):49-56.
18. Faheem Ahmed Khan., **Pandupuspitasari, NS.**, Chun-Jie, H., Ao, Z., Jamal, M., Zohaib, A., Khan, FA., Hakim, MR., and Zhang, S., (2016). CRISPR/Cas9 Therapeutics: A cure for cancer and other genetic diseases. 2016, *Oncotarget*.
19. Guo YC, Zhang M, Wang FX, Pei GC, Sun F, Zhang Y, He X, Wang Y, Song J, Zhu FM, **Pandupuspitasari NS., et al** (2017) Macrophages Regulate Unilateral Ureteral Obstruction-Induced Renal Lymphangiogenesis through CC Motif Chemokine Receptor 2–Dependent Phosphatidylinositol 3-Kinase-AKT–Mechanistic Target of Rapamycin Signaling and Hypoxia-Inducible Factor-1 α /Vascular Endothelial Growth Factor-C Expression. *The American Journal of Pathology*. 2017;187(8):1736-49.
20. Zhang L, Wang Y, Pandupuspitasari NS, Wu G, Xiang X, Gong Q, Xiong W, Wang CY, Yang P, Ren B. Endoplasmic reticulum stress, a new wrestler, in the pathogenesis of idiopathic pulmonary fibrosis. *American journal of translational research*. 2017;9(2):722.
21. Khan FA, Pandupuspitasari NS, ChunJie H, Ahmad HI, Wang K, Ahmad MJ, Zhang S. Applications of CRISPR/Cas9 in reproductive biology. *Curr Issues Mol Biol*. 2018 Jan 1;26:93-102.
22. Yuwei Ren, Faheem Ahmed Khan, **Nuruliarizki Shinta Pandupuspitasari**, Shuaifeng Li, Xingjie Hao, Xing Chen, Jiajun Xiong, Liguang Yang, Mingxia Fan, Shujun Zhang. 2016. Highly Pathogenic Porcine Reproductive and Respiratory Syndrome Virus modulates interferon (IFN)- β expression mainly through attenuating IRF3 phosphorylation. *DNA and Cell biology*, 35:1-9.
23. Yuwei Ren, Faheem Ahmed Khan, **Nuruliarizki Shinta Pandupuspitasari**, Shujun Zhang: Immune Evasion Strategies of Pathogens in Macrophages: the Potential for Limiting Pathogen Transmission. *Current issues in molecular biology* 2016; 21:21-40.
24. Yibo Jiang, Faheem Ahmed Khan, **Nuruliarizki Shinta Pandupuspitasari**, Ishwari Kadariya, Zhangrui Cheng, Yuwei Ren, Xing Chen, Ao Zhou, Liguang Yang, Dexin Kong, Shujun Zhang: Analysis of the Binding Sites of Porcine Sialoadhesin Receptor with PRRSV. *International Journal of Molecular Sciences* 12/2013; 14(12):23955-79. DOI:10.3390/ijms141223955.

25. Fahad S, Khan FA, **Pandupuspitasari NS**, Hussain S, Khan IA, Saeed M, Saud S, Hassan S, Adnan M, Arif M, Alam M. Suppressing photorespiration for the improvement in photosynthesis and crop yields: A review on the role of S-allantoin as a nitrogen source. *Journal of environmental management*. 2019;237:644-51.
26. **Pandupuspitasari, N.S.**, Khan, F.A., Sameeullah, M., Rehman, Z.U., Sudjatmogo, A.M. and Yi, J., 2015. Effects of diludine on the production, oxidative status, and biochemical parameters in transition cows. *J Environ Agric Sci*, 6, pp.3-9.
27. Di Wu CJ, Khan FA, Jiao XF, Liu XM, **Pandupuspitasari NS**, Brohi RD, Huo LJ. SENP3 grants tight junction integrity and cytoskeleton architecture in mouse Sertoli cells. *Oncotarget*. 2017 Aug 29;8(35):58430.
28. Fahad S, Khan FA, **Pandupuspitasari NS**, Ahmed MM, Liao YC, Waheed MT, Sameeullah M, Hussain S, Saud S, Hassan S, Jan A. Recent developments in therapeutic protein expression technologies in plants. *Biotechnology letters*. 2015 Feb 1;37(2):265-79.