

DAFTAR PUSTAKA

- Abbas, K.A., Lichtman, A.H., dan Pillai, S. (2023). *Basic Immunology: Functions and Disorders of the Immune System*. Elsevier :London
- Abdulateef, S. A., Aal Owaif, H. A., & Hussein, M. H. (2023). Importance of Virulence Factors in Bacterial Pathogenicity: A Review. *International Journal Of Medical Science and Clinical Research Studies*, 03(04). <https://doi.org/10.47191/ijmscrs/v3-i4-35>
- Acke, E., Midwinter, A. C., Lawrence, K., Gordon, S. J. G., Moore, S., Rasiah, I., Steward, K., French, N., & Waller, A. (2015). Prevalence of *Streptococcus dysgalactiae* subsp. *equisimilis* and *S. equi* subsp. *zooepidemicus* in A Sample of Healthy Dogs, Cats and Horses. *New Zealand Veterinary Journal*, 63(5), 265–271. <https://doi.org/10.1080/00480169.2015.1016133>
- Adler, K., Radeloff, I., Stephan, B., Greife, H., & Hellmann, K. (2007). Bakteriologischer Und Virologischer Status Bei Katzen Mit Erkrankungen Der Oberen Atemwege (Katzenschnupfenkomplex). *Berliner Und Munchener Tierarztliche Wochenschrift*, 120(3–4), 120–125. <https://doi.org/10.2376/0005-9366-120-120>
- Aghili, Z. S., Magnani, M., Ghatrehsamani, M., Nourian Dehkordi, A., Mirzaei, S. A., & Banitalebi Dehkordi, M. (2024). Intelligent Berberine-Loaded Erythrocytes Attenuated Inflammatory Cytokine Productions In Macrophages. *Scientific Reports*, 14(1), 1–13. <https://doi.org/10.1038/s41598-024-60103-9>
- Anggraeni, H. E., Primayani, R., & Nihaya, K. (2025). Prevalence of Upper Respiratory Tract Infection in Cats at Satwagia Intensive Care Bogor Prevalensi Infeksi Saluran Pernapasan Atas pada Kucing di Satwagia Intensive Care Bogor. *Journal of Applied Veterinary Science And Technology*, 06(1), 64–69.
- Barnett, T. C., Cole, J. N., Rivera-Hernandez, T., Henningham, A., Paton, J. C., Nizet, V., & Walker, M. J. (2015). Streptococcal Toxins: Role in Pathogenesis and Disease. *Cellular Microbiology*, 17(12), 1721–1741. <https://doi.org/10.1111/cmi.12531>
- Bergmann, S., Eichhorn, I., Kohler, T. P., Hammerschmidt, S., Goldmann, O., Rohde, M., & Fulde, M. (2017). SCM, the M protein of *Streptococcus canis* binds immunoglobulin G. *Frontiers in Cellular and Infection Microbiology*, 7(MAR). <https://doi.org/10.3389/fcimb.2017.00080>
- Bergmann, S., Fulde, M., & Siemens, N. (2022). Editorial: Streptococci in Infectious Diseases – Pathogenic Mechanisms and Host Immune Responses. *Frontiers in Microbiology*, 13. <https://doi.org/10.3389/fmicb.2022.988671>
- Bhattacharya, S., Ploplis, V. A., & Castellino, F. J. (2012). System for Effective Invasion and Dissemination. *Journal of Biomedicine and Biotechnology*. <https://doi.org/10.1155/2012/482096>

- Boero, E., Brinkman, I., Juliet, T., van Yperen, E., van Strijp, J. A. G., Rooijackers, S. H. M., & van Kessel, K. P. M. (2021). Use of Flow Cytometry to Evaluate Phagocytosis of *Staphylococcus aureus* by Human Neutrophils. *Frontiers in Immunology*, *12*(February), 1–15. <https://doi.org/10.3389/fimmu.2021.635825>
- Brouwer, S., Rivera-Hernandez, T., Curren, B. F., Harbison-Price, N., De Oliveira, D. M. P., Jespersen, M. G., Davies, M. R., & Walker, M. J. (2023). Pathogenesis, epidemiology and control of Group A *Streptococcus* infection. *Nature Reviews Microbiology*, *21*(7), 431–447. <https://doi.org/10.1038/s41579-023-00865-7>
- Bryan, A. M., You, J. K., Li, G., Kim, J. H., Singh, A., Morstein, J., Trauner, D., de Sá, N. P., Normile, T. G., Farnoud, A. M., London, E., & Del Poeta, M. (2021). Cholesterol and Sphingomyelin are Critical for Fcγ Receptor-Mediated Phagocytosis of *Cryptococcus Neoformans* by Macrophages. *Journal of Biological Chemistry*, *297*(6), 101411. <https://doi.org/10.1016/j.jbc.2021.101411>
- Byrne, S. J., Butler, C. A., Reynolds, E. C., & Dashper, S. G. (2018). Taxonomy of Oral Bacteria. *Methods in Microbiology*, *45*, 171–201. <https://doi.org/10.1016/BS.MIM.2018.07.001>
- Cantelmi, M. C., Merola, C., Averaimo, D., Chiaverini, A., Cito, F., Cocco, A., Di Teodoro, G., De Angelis, M. E., Di Bernardo, D., Auzino, D., & Petrini, A. (2023). Identification of the Novel *Streptococcus equi subsp. zooepidemicus* Sequence Type 525 in Donkeys of Abruzzo Region, Italy. *Pathogens*, *12*(6). <https://doi.org/10.3390/pathogens12060750>
- Chen, P., Qiu, Y., Liu, G., Li, X., Cheng, J., Liu, K., Qu, W., Zhu, C., Kastelic, J. P., Han, B., & Gao, J. (2021). Characterization of *Streptococcus lutetiensis* Isolated from Clinical Mastitis of Dairy Cows. *Journal of Dairy Science*, *104*(1), 702–714. <https://doi.org/10.3168/jds.2020-18347>
- Chiarot, E., Faralla, C., Chiappini, N., Tuscano, G., Falugi, F., Gambellini, G., & Taddei, A. (2013). Targeted amino acid substitutions impair streptolysin O toxicity and group A *Streptococcus* virulence. *mBio* *4*(1):e00387-12. 1–9. <https://doi.org/10.1128/mBio.00387-12.Invited>
- Ciszewski, M., Zegarski, K., & Szewczyk, E. M. (2016). *Streptococcus dysgalactiae subsp. equisimilis* Isolated From Infections in Dogs and Humans: Are Current Subspecies Identification Criteria accurate? *Current Microbiology*, *73*(5), 684–688. <https://doi.org/10.1007/s00284-016-1113-x>
- Cornax, I., Zulk, J., Olson, J., Fulde, M., Nizet, V., & Patras, K. A. (2021). Novel Models of *Streptococcus canis* Colonization and Disease Reveal Modest Contributions of M-like (SCM) protein. *Microorganisms*, *9*(1), 1–16. <https://doi.org/10.3390/microorganisms9010183>
- Cota, A. L. S., & Alvim, R. G. (2018). Effect of Storage Temperature On

- Streptococcus mutans* Viability. *Revista de Odontologia Da UNESP*, 47(2), 74–78. <https://doi.org/10.1590/1807-2577.08317>
- Day, M. J., Carey, S., Clercx, C., Kohn, B., Marsilio, F., Thiry, E., Freyburger, L., Schulz, B., & Walker, D. J. (2020). Aetiology of Canine Infectious Respiratory Disease Complex and Prevalence of its Pathogens in Europe. *Journal of Comparative Pathology*, 176, 86–108. <https://doi.org/10.1016/j.jcpa.2020.02.005>
- Delost, M.D.D. 2022. *Introduction to Diagnostic Microbiology for the Laboratory Sciences* 2nd ed. New York : Jones & Bartlett Publishers
- Denzer, L., Schrotten, H., & Schwerk, C. (2020). From Gene to Protein—how Bacterial Virulence Factors Manipulate Host Gene Expression During Infection. *International Journal of Molecular Sciences*, 21(10), 1–37. <https://doi.org/10.3390/ijms21103730>
- Döhrmann, S., Cole, J. N., & Nizet, V. (2016). Conquering Neutrophils. *PLoS Pathogens*, 12(7), 1–8. <https://doi.org/10.1371/journal.ppat.1005682>
- Efstratiou, A., Lamagni, T., & Turner, C. E. (2017). Definition for Streptococcal Toxic Shock-Like Syndrome. In *Infectious Diseases, 2-Volume Set* (pp. 1523-1536.e2). Elsevier. <https://doi.org/10.1016/B978-0-7020-6285-8.00177-5>
- Elfil, M., & Negida, A. (2017). Sampling methods in Clinical Research; an Educational Review. *Emergency* 5(1), 3–5.
- Fieber, C., & Kovarik, P. (2014). Responses of Innate Immune Cells To Group A *Streptococcus*. *Frontiers in Cellular and Infection Microbiology*, 4(OCT), 1–7. <https://doi.org/10.3389/fcimb.2014.00140>
- Frymus, T., Addie, D. D., Boucraut-Baralon, C., Egberink, H., Gruffydd-Jones, T., Hartmann, K., Horzinek, M. C., Hosie, M. J., Lloret, A., Lutz, H., Marsilio, F., Pennisi, M. G., Radford, A. D., Thiry, E., Truyen, U., & Möstl, K. (2015). Streptococcal infections in cats: ABCD guidelines on prevention and management. *Journal of Feline Medicine and Surgery*, 17(7), 620–625. <https://doi.org/10.1177/1098612X15588454>
- Fukuda, K., Ogawa, M., Taniguchi, H., & Saito, M. (2016). Molecular Approaches to Studying Microbial Communities: Targeting the 16S ribosomal RNA gene. *Journal of UOEH*, 38(3), 223–232. <https://doi.org/10.7888/juoeh.38.223>
- Fulde, M., Rohde, M., Hitzmann, A., Preissner, K. T., Nitsche-schmitz, D. P., Nerlich, A., Chhatwal, G. S., & Bergmann, S. (2011). SCM , A Novel M-like Protein from *Streptococcus canis* , Binds (Mini) -Plasminogen with High Affinity and Facilitates Bacterial Transmigration. *Biochem J*, 535, 523–535. <https://doi.org/10.1042/BJ20101121>
- Fulde, M., Rohde, M., Polok, A., Preissner, K. T., & Chhatwal, S. (2013). Cooperative Plasminogen Recruitment to the Surface of *Streptococcus canis*

via M Protein and Enolase Enhances Bacterial Survival. *mBio* 4(2), 1–12.
<https://doi.org/10.1128/mBio.00629-12>. Editor

Garaeva, N., Fatkhullin, B., Murzakhanov, F., Gafurov, M., Golubev, A., Bikmullin, A., Glazyrin, M., Kieffer, B., Jenner, L., Klochkov, V., Aganov, A., Rogachev, A., Ivankov, O., Validov, S., Yusupov, M., & Usachev, K. (2024). Structural Aspects of Rimp Binding on Small Ribosomal Subunit from *Staphylococcus aureus*. *Structure*, 32(1), 74–82.e5.
<https://doi.org/10.1016/J.STR.2023.10.014>

Gergova, R., Boyanov, V., Muhtarova, A., & Alexandrova, A. (2024). A Review of the Impact of Streptococcal Infections and Antimicrobial Resistance on Human Health. *Antibiotics*, 13(4).
<https://doi.org/10.3390/antibiotics13040360>

Ginders, M., Leschnik, M., Künzel, F., Kampner, D., Mikula, C., Steindl, G., Eichhorn, I., Feßler, A. T., Schwarz, S., Spersger, J., & Loncaric, I. (2017). Characterization of *Streptococcus pneumoniae* isolates from Austrian companion animals and horses. *Acta Veterinaria Scandinavica*, 59(1), 1–5.
<https://doi.org/10.1186/s13028-017-0348-2>

Haenni, M., Lupo, A., & Madec, J.-Y. (2018). Antimicrobial Resistance in *Streptococcus* spp. *Microbiology Spectrum*, 6(2).
<https://doi.org/10.1128/microbiolspec.arba-0008-2017>

Hassan, A. A., Khan, I. U., Abdulmawjood, A., & Lämmler, C. (2003). Inter- and intraspecies variations of the 16S-23S rDNA intergenic spacer region of various streptococcal species. *Systematic and Applied Microbiology*, 26(1), 97–103. <https://doi.org/10.1078/072320203322337371>

Henningham, A., Döhrmann, S., Nizet, V., & Cole, J. N. (2015). Mechanisms of Group A *Streptococcus* Resistance to Reactive Oxygen Species. *FEMS Microbiology Reviews*, 39(4), 488–508.
<https://doi.org/10.1093/femsre/fuu009>

Herb, M., Schatz, V., Hadrian, K., Hos, D., Holoborodko, B., Jantsch, J., & Brigo, N. (2024). Macrophage Variants in laboratory research: Most are Well Done, but Some are RAW. *Frontiers in Cellular and Infection Microbiology*, 14(October), 1–25. <https://doi.org/10.3389/fcimb.2024.1457323>

Huang, K., Yang, M., Wu, Y., & Wei, M. (2025). Journal of Traditional and Complementary Medicine Anti-inflammatory and polarization-modulating effects of Houttuynia. *Journal of Traditional and Complementary Medicine*, May, 1–10. <https://doi.org/10.1016/j.jtcme.2025.05.001>

Hurst, J. R., Shannon, B. A., Craig, H. C., Rishi, A., Tuffs, S. W., & McCormick, J. K. (2022). The *Streptococcus pyogenes* Hyaluronic Acid Capsule Promotes Experimental Nasal and Skin Infection by Preventing Neutrophil-Mediated Clearance. *PLoS Pathogens*, 18(11), 1–23.
<https://doi.org/10.1371/journal.ppat.1011013>

- Itzek, A., Weißbach, V., Meintrup, D., Rieß, B., van der Linden, M., & Borgmann, S. (2023). Epidemiological and Clinical Features of *Streptococcus dysgalactiae* ssp. *equisimilis* stG62647 and Other emm Types in Germany. *Pathogens*, *12*(4). <https://doi.org/10.3390/pathogens12040589>
- Jantsch, J., Gerlach, R. G., Ensser, A., Dahesh, S., Popp, I., Heeg, C., Bleiziffer, O., Merz, T., Schulz, T., Horch, R. E., Bogdan, C., Nizet, V., & Van Der Linden, M. (2013). Severe Soft Tissue Infection Caused by a non-beta-Hemolytic *Streptococcus pyogenes* strain harboring a Premature Stop Mutation in the sagC Gene. *Journal of Clinical Microbiology*, *51*(6), 1962–1965. <https://doi.org/10.1128/JCM.00175-13>
- Janžič, L., Repas, J., Pavlin, M., Zemljic-Jokhadar, Š., Ihan, A., & Kopitar, A. N. (2023). Macrophage Polarization During *Streptococcus agalactiae* Infection is Isolate Specific. *Frontiers in Microbiology*, *14*(May), 1–17. <https://doi.org/10.3389/fmicb.2023.1186087>
- Kampff, Z., van Sinderen, D., & Mahony, J. (2023). Cell Wall Polysaccharides of Streptococci: A genetic and Structural Perspective. *Biotechnology Advances*, *69*(February), 108279. <https://doi.org/10.1016/j.biotechadv.2023.108279>
- Kuryłek, A., Stasiak, M., & Kern-Zdanowicz, I. (2022). Virulence Factors of *Streptococcus anginosus* – A Molecular Perspective. *Frontiers in Microbiology*, *13*(October), 1–15. <https://doi.org/10.3389/fmicb.2022.1025136>
- Lapschies, A. M., Aubry, E., Kohler, T. P., Goldmann, O., Hammerschmidt, S., Nerlich, A., Eichhorn, I., van Vorst, K., & Fulde, M. (2023). The type-2 *Streptococcus canis* M protein SCM-2 Binds Fibrinogen and facilitates Antiphagocytic Properties. *Frontiers in Microbiology*, *14*(October), 1–9. <https://doi.org/10.3389/fmicb.2023.1228472>
- Lee, K., Afiff, U., Safika, S., & Sunartatie, T. (2022). Antimicrobial Sensitivity of Most Commonly Isolated Bacteria from Feline Upper Respiratory Infection. *ARSHI Veterinary Letters*, *5*(3), 55–56. <https://doi.org/10.29244/avl.5.3.55-56>
- Leo, J. C., & Goldman, A. (2009). The Immunoglobulin-binding Eib Proteins from *Escherichia coli* are Receptors for IgG Fc. *Molecular Immunology*, *46*, 1860–1866. <https://doi.org/10.1016/j.molimm.2009.02.024>
- Lesbats, J., Brillac, A., Reisz, J. A., Mukherjee, P., Lhuissier, C., Fernández-Monreal, M., Dupuy, J. W., Sequeira, A., Tioli, G., De La Calle Arregui, C., Pinson, B., Wendisch, D., Rousseau, B., Efeyan, A., Sander, L. E., D'Alessandro, A., & Garaude, J. (2025). Macrophages Recycle Phagocytosed Bacteria to Fuel Immunometabolic Responses. *Nature*, *640*(8058), 524–533. <https://doi.org/10.1038/s41586-025-08629-4>
- Lewis, M. J., Meehan, M., Owen, P., & Woof, J. M. (2008). A Common Theme in Interaction of Bacterial Immunoglobulin-binding Proteins with Immunoglobulins Illustrated in the Equine System. *Journal of Biological*

Chemistry 283(25), 17615–17623. <https://doi.org/10.1074/jbc.M709844200>

- Li, Y., Hao, N., Zou, S., Meng, T., Tao, H., Ming, P., Li, M., Ding, H., Li, J., Feng, S., Wang, X., & Wu, J. (2018). Immune Regulation of RAW264 . 7 Cells In Vitro by Flavonoids from *Astragalus complanatus* via Activating the NF- κ B Signalling Pathway. *Journal of Immunology Research* 1–9. <https://doi.org/10.1155/2018/7948068>
- Li, Y., Zhang, P., Huang, Y., Yu, J., Liu, Y., Li, S., Sun, Q., & Fu, Q. (2024). SzM Protein of *Streptococcus equi* ssp. *zooepidemicus* Triggers the Release of Neutrophil Extracellular Traps Depending on GSDMD. *Microbial Pathogenesis*, 192(1), 106703. <https://doi.org/10.1016/j.micpath.2024.106703>
- Liao, C., Mao, F., Qian, M., & Wang, X. (2022). Pathogen-Derived Nucleases: An Effective Weapon for Escaping Extracellular Traps. *Frontiers in Immunology*, 13(July), 1–14. <https://doi.org/10.3389/fimmu.2022.899890>
- Lin, A. E., Beasley, F. C., Keller, N., Hollands, A., Urbano, R., Troemel, E. R., Hoffman, H. M., & Nizet, V. (2015). A group A *Streptococcus* ADP-Ribosyltransferase Toxin Stimulates A Protective Interleukin 1 β -Dependent Macrophage Immune Response. *MBio*, 6(2). <https://doi.org/10.1128/mBio.00133-15>
- Lucia, M., Rahayu, S., Haerah, D., & Wahyuni, D. (2017). Detection of *Staphylococcus aureus* and *Streptococcus agalactiae*: Subclinical Mastitis Causes in Dairy Cow and Dairy Buffalo (*Bubalus Bubalis*). *American Journal of Biomedical Research*, 5(1), 8–13. <https://doi.org/10.12691/ajbr-5-1-2>
- Lynskey, N. N., Reglinski, M., Calay, D., Siggins, M. K., Mason, J. C., Botto, M., & Sriskandan, S. (2017). Multi-functional Mechanisms of Immune Evasion by the Streptococcal Complement Inhibitor C5a peptidase. *PLoS Pathogens*, 13(8), 1–29. <https://doi.org/10.1371/journal.ppat.1006493>
- Ma, F., Guo, X., & Fan, H. (2017). Extracellular Nucleases of *Streptococcus equi* subsp. *zooepidemicus* Degrade Neutrophil Extracellular Traps and impair Macrophage Activity of the Host. *Applied and Environmental Microbiology*, 83(2), 1–15. <https://doi.org/10.1128/AEM.02468-16>
- Maboni, G., Che, S., Tallmadge, R., De Luca, E., Goodman, L. B., Weese, J. S., & Sanchez, S. (2024). Feline Respiratory Disease Complex: Insights Into the Role of Viral and Bacterial Co-Infections. *Frontiers in Microbiology*, 15(September), 1–10. <https://doi.org/10.3389/fmicb.2024.1455453>
- Maeda, T., Tsuyuki, Y., Fujita, T., Fukushima, Y., & Goto, M. (2020). Comparison of *Streptococcus agalactiae* Isolates from Humans and Companion Animals Reveals Genotypic and Phenotypic Differences. *Jpn J. Infect Disease ii*, 308–315. <https://doi.org/10.7883/yoken.JJID.2019.441>
- Mangano, E. R., Jones, G. M. C., Suarez-Bonnet, A., Waller, A. S., & Priestnall, S. L. (2024). *Streptococcus zooepidemicus* in dogs: Exploring a canine pathogen

- through multilocus sequence typing. *Veterinary Microbiology*, 292, 110059. <https://doi.org/10.1016/J.VETMIC.2024.110059>
- Markey, B., Leonard, F., Archambault, M., Culinane, A., dan Maguire, D. 2013. *Clinical Veterinary Microbiology*. London: Elsevier
- Marshall, J. S., Warrington, R., Watson, W., & Kim, H. L. (2018). An Introduction to Immunology and Immunopathology. *Allergy, Asthma and Clinical Immunology*, 14(s2), 1–10. <https://doi.org/10.1186/s13223-018-0278-1>
- Mcvey, D.S., Kennedy, M. and Chengappa, M.M. 2022. *Veterinary Microbiology*. 4th Edition, Wiley, Hoboken
- Mills, J. O., & Ghosh, P. (2021). Nonimmune Antibody Interactions of Group A *Streptococcus* M and M-like Proteins. *PLoS Pathogens*, 17(2), 1–15. <https://doi.org/10.1371/JOURNAL.PPAT.1009248>
- Moon, D. C., Choi, J. H., Bobby, N., Kim, S. J., Song, H. J., Park, H. S., Gil, M. C., Yoon, S. S., & Lim, S. K. (2022). Prevalence of Bacterial Species in Skin, Urine, Diarrheal Stool, and Respiratory Samples in Cats. *Pathogens*, 11(3), 1–12. <https://doi.org/10.3390/pathogens11030324>
- Moriconi, M., Acke, E., Petrelli, D., & Preziuso, S. (2017). Multiplex PCR-based Identification of *Streptococcus canis*, *Streptococcus zooepidemicus* and *Streptococcus dysgalactiae* subspecies from Dogs. *Comparative Immunology, Microbiology and Infectious Diseases*, 50, 48–53. <https://doi.org/10.1016/j.cimid.2016.11.011>
- Morrow, B. L., McNatt, R., Joyce, L., McBride, S., Morgan, D., Tressler, C., & Mellits, C. (2016). Highly Pathogenic Beta-hemolytic Streptococcal Infections in Cats from An Institutionalized Hoarding Facility and A Multi-Species Comparison. *Journal of Feline Medicine and Surgery*, 18(4), 318–327. <https://doi.org/10.1177/1098612X15582233>
- Munawaroh, R., Siswadi., Setyowatim E.P., Murwanti, R., Hertiani, T. (2018). Correlation Between Total Flavonoid Contents and Macrophage Phagocytosis Activity of Fractions From Faloak (*Sterculia quadrifida* R.Br.) Barks Ethanolic Extract In Vitro. *Trad med J* 23, 47-55
- Nanayakkara, U., Khan, M. A., Hargun, D. K., Sivagnanam, S., & Samarawickrama, C. (2023). Ocular Streptococcal Infections: A Clinical and Microbiological Review. *Survey of Ophthalmology*, 68(4), 678–696. <https://doi.org/10.1016/J.SURVOPHTHAL.2023.02.001>
- Nasef, M., Parker, L., Kizziah, J., & Dokland, T. (2023). Structure of the *Streptococcus pneumoniae* 70S Ribosome at 2.9 Å Resolution using Cryo-EM. *Microscopy and Microanalysis*, 29(1), 938–940. <https://doi.org/10.1093/micmic/ozad067.467>
- Nugroho, M. P., Hartady, T., & Lesmana, R. (2022). Hubungan Karakteristik Individu Terhadap Tingkat Pengetahuan dan Penerapan Kesejahteraan Hewan

- pada Mahasiswa Universitas Padjadjaran. *Acta VETERINARIA Indonesiana*, 10(2), 133–141. <https://doi.org/10.29244/avi.10.2.133-141>
- Nurmi, R., Soedarmanto, N., & Alfarisa, Y. (2022). Case Report : Therapy of *Streptococcal pneumonia* in a Cat. *Atlantis Press 22(Icbs 2021)*, 626–628.
- Oehmcke, S., Shannon, O., Mörgelin, M., & Herwald, H. (2010). Clinica Chimica Acta Streptococcal M proteins and Their Role as Virulence Determinants. *Clinica Chimica Acta*, 411(17–18), 1172–1180. <https://doi.org/10.1016/j.cca.2010.04.032>
- Pagnossin, D., Smith, A., Oravcová, K., & Weir, W. (2022). *Streptococcus canis*, the Underdog of the Genus. *Veterinary Microbiology*, 273, 109524. <https://doi.org/10.1016/J.VETMIC.2022.109524>
- Pinho, M. D., Foster, G., Pomba, C., MacHado, M. P., Baily, J. L., Kuiken, T., Melo-Cristino, J., & Ramirez, M. (2019). *Streptococcus canis* are a single population infecting multiple animal hosts despite the diversity of the Universally Present M-Like Protein SCM. *Frontiers in Microbiology*, 10(MAR), 1–10. <https://doi.org/10.3389/fmicb.2019.00631>
- Prakarsa, C. P., Bodhi, W., & Datu, O. S. (2024). Uji Aktivitas Fagositosis Makrofag Ekstrak Tanaman Gedi (*Ablemoschus Manihot* L.) sebagai Imunomodulator. *Pharmacon* 13, 419–430. <https://doi.org/10.35799/pha.13.2024.49698>
- Pesavento, P., Bannasch, M.J., Bachmann, R., Byrne, B.A., dan Hurley, K.F. (2007). Fatal *Streptococcus canis* Infections in Intensively Housed Shelter Cats. *Vet Pathol* 44
- Richards, V. P., Zadoks, R. N., Bitar, P. D. P., Lefébure, T., Lang, P., Werner, B., Tikofsky, L., Moroni, P., & Stanhope, M. J. (2012). Genome Characterization and Population Genetic Structure of The Zoonotic Pathogen , *Streptococcus canis*. *BMC Microbiology* 1–16.
- Şababoğlu, E., Öztürk, D., & Türütoğlu, H. (2021). Isolation and antimicrobial Susceptibility Of *Streptococcus canis* From Dogs. *Etlik Veteriner Mikrobiyoloji Dergisi*, 32(1), 6–13. <https://doi.org/10.35864/evmd.756567>
- Saha, U. S., Misra, R., Tiwari, D., & Prasad, K. N. (2016). A Cost-effective Anaerobic Culture Method & Its Comparison with A Standard Method. *Indian Journal of Medical Research*, 144(OCTOBER), 611–613. <https://doi.org/10.4103/0971-5916.200881>
- Samanta, I., & Bandyopadhyay, S. (2020). *Streptococcus* in *Antimicrobial Resistance in Agriculture* (pp. 217–232). Elsevier. <https://doi.org/10.1016/B978-0-12-815770-1.00017-1>
- Sanchez-Rosario, Y., & Johnson, M. D. L. (2021). Media Matters, Examining Historical and Modern *Streptococcus pneumoniae* Growth Media and the Experiments They Affect. *Frontiers in Cellular and Infection Microbiology*,

11(March), 1–15. <https://doi.org/10.3389/fcimb.2021.613623>

- Sastalla, I., Monack, D. M., & Kubatzky, K. F. (2016). Editorial: Bacterial exotoxins: How bacteria fight the immune system. *Frontiers in Immunology*, 7(AUG), 10–12. <https://doi.org/10.3389/fimmu.2016.00300>
- Seid, U., & Demeke, A. (2018). Review on Major Virulence Factors of Pathogenic *Streptococcus* Species. *International Journal of Research Studies in Microbiology and Biotechnology*, 4(2), 11–37. <https://doi.org/10.20431/2454-9428.0402003>
- Seo, M. G., Han, K. Y., Kim, S. H., Kang, C. K., Kim, J. H., & Hong, I. H. (2023). Fibrinous Pleuritis Associated with *Streptococcus canis* in A Leopard Cat (*Prionailurus bengalensis euptilurus*). *Journal of Veterinary Science*, 24(5), 4–9. <https://doi.org/10.4142/jvs.23080>
- Slarve, M., Nielsen, T., Spellberg, B., & Luna, B. (2025). Evaluating Antibody Mediated Opsonophagocytosis of Bacteria via Lab Protocol : RAW 264 .7 Cell Phagocytosis Assay. *PLoS One* 1–6. <https://doi.org/10.1371/journal.pone.0331445>
- Soku, Y. K., Etzioni, A. L., & Mohamed, A. (2023). Case Report: Multidrug-Resistant *Streptococcus pseudoporcinus* Isolated from An Infected Surgical Wound Of A 9-Year-Old Spayed Female Great Dane Dog. *Frontiers in Veterinary Science*, 10(3). <https://doi.org/10.3389/fvets.2023.1139381>
- Spellerberg, B., & Brandt, C. (2016). Laboratory Diagnosis of *Streptococcus pyogenes* (group A Streptococci) Culturing Techniques. 2016 Feb 10. In: Ferretti JJ, Stevens DL, Fischetti VA, editors. *Streptococcus pyogenes : Basic Biology to Clinical Manifestations* [Internet]. Oklahoma City (OK): University of Oklahoma Health Sciences Center; 2016
- Srinivasan, R., Karaoz, U., Volegova, M., MacKichan, J., Kato-Maeda, M., Miller, S., Nadarajan, R., Brodie, E. L., & Lynch, S. V. (2015). Use of 16S rRNA Gene for Identification of A Broad Range of Clinically Relevant Bacterial Pathogens. *PLoS ONE*, 10(2), 1–22. <https://doi.org/10.1371/journal.pone.0117617>
- Su, M. S.-W., Cheng, Y.-L., Lin, Y.-S., & Wu, J.-J. (2024). Interplay Between Group A *Streptococcus* and Host Innate Immune Responses . *Microbiology and Molecular Biology Reviews*, 88(1). <https://doi.org/10.1128/mmbr.00052-22>
- Suwito, W., Wahyuni, A., Sri Nugroho, W., Sumiarto, B., (2018). Isolasi dan Sensitifitas Antibiotika terhadap *Streptococcus* spp dari Kambing PE Mastitis Subklinis Kronis (Isolation and Antibiotic Sensitivity against *Streptococcus* spp from PE Goat Chronic Subclinical Mastitis). *Acta Veterinaria IndonesianA*, 6(1), 8–15. <http://www.journal.ipb.ac.id/indeks.php/actavetindonesia>

- Sykers, J. E. (2023). *Greene's Infectious Diseases of the Dog and Cat*. Elsevier
- Taniyama, D., Abe, Y., Sakai, T., Kikuchi, T., & Takahashi, T. (2017). Human Case of acteremia Caused by *Streptococcus canis* Sequence Type 9 Harboring The Scm Gene. *IDCases*, 7, 48–52. <https://doi.org/10.1016/J.IDCR.2017.01.002>
- Thapa, R., Goh, K. G. K., Desai, D., Copeman, E., Acharya, D., Sullivan, M. J., & Ulett, G. C. (2024). Alterations in Cell Arrangements of Group B *Streptococcus* Due to Virulence Factor Expression Can Bias Estimates Of Bacterial Populations Based on Colony Count Measures. *Microbiology (United Kingdom)*, 170(4), 1–10. <https://doi.org/10.1099/mic.0.001453>
- Timoney, J. F., Velineni, S., Ulrich, B., & Blanchard, P. (n.d.). Biotypes and SCM Types of isolates of *Streptococcus canis* from Diseased and Healthy Cats. *Veterinary Record*. <https://doi.org/10.1136/vr.103868>
- Uribe-querol, E., & Rosales, C. (2020). Phagocytosis : Our Current Understanding of a Universal Biological Process. *Front. Immunol* 1–13. <https://doi.org/10.3389/fimmu.2020.01066>
- Uruén, C., García, C., Fraile, L., Tommassen, J., & Arenas, J. (2022). How *Streptococcus suis* Escapes Antibiotic Treatments. *Veterinary Research BioMed Central*. <https://doi.org/10.1186/s13567-022-01111-3>
- Valderrama, J. A., & Nizet, V. (2018). Group A *Streptococcus* Encounters with Host Macrophages. *Future Microbiology*, 13(1), 119–134. <https://doi.org/10.2217/fmb-2017-0142>
- Wang, G., Zhao, J., Zhao, Y., Wang, S., Feng, S., & Gu, G. (2021). Immunogenicity Assessment of Different Segments and Domains Of Group A Streptococcal C5a Peptidase and Their Application Potential as Carrier Protein for Glycoconjugate Vaccine Development. *Vaccines*, 9(2), 1–14. <https://doi.org/10.3390/vaccines9020139>
- Wang, M. S., Huaringa, M., Feld, L., Ochiai, K., Whelan, T., & Frazier, N. M. (2024). *Streptococcus canis* native Aortic Valve Endocarditis Linked to Cat Exposure: A Case Report and Review. *Journal of Community Hospital Internal Medicine Perspectives*, 14(2). <https://doi.org/10.55729/2000-9666.1318>
- Wasissa, M., Lestari, F. B., & Salasia, S. I. O. (2021). *Streptococcus equi* subsp. *zooepidemicus* Finding in confirmed Feline Infectious Peritonitis Cat Patient. *Heliyon*, 7(6). <https://doi.org/10.1016/j.heliyon.2021.e07268>
- Wataradee, S., Boonserm, T., Samngamn, S., & Ajariyakhajorn, K. (2024). Characterization of Virulence Factors and Antimicrobial Susceptibility of *Streptococcus agalactiae* Associated with Bovine Mastitis Cases in Thailand. *Animals*, 14(3). <https://doi.org/10.3390/ani14030447>
- Wittmeier, P., & Hummel, S. (2022). Agarose Gel Electrophoresis to Assess PCR Product Yield: Comparison With Spectrophotometry, Fluorometry and qPCR.

BioTechniques, 72(4), 155–158. <https://doi.org/10.2144/btn-2021-0094>

- Wood, J., Reagan, K. L., Gunther-harrington, C., & Sykes, J. E. (2021). Identification of *Streptococcus suis* in A Cat with Endomyocarditis. *Journal of Feline Medicine and Surgery Open Reports* 1–6. <https://doi.org/10.1177/20551169211012346>
- Wrighton, S., Ahnslide, V. K., & André, O. (2023). Group A Streptococci Induce Stronger M Protein-Fibronectin Interaction When Specific Human Antibodies are Bound. *Front Mucrobiol*, 14 1–15. <https://doi.org/10.3389/fmicb.2023.1069789>
- Wulandari, I. G. A. I., Nainggolan, H. H., Tafroji, W., & Safari, D. (2022). Bacterial Growth Comparison of Vaccine and Non-Vaccine Type *Streptococcus pneumoniae* in Different Enrichment Broths. *Journal of Microbiological Methods*, 200, 106539. <https://doi.org/10.1016/J.MIMET.2022.106539>
- Xia, X., Qin, W., Zhu, H., Wang, X., Jiang, J., & Hu, J. (2019). How *Streptococcus suis* serotype 2 Attempts To Avoid Attack By Host Immune Defenses. *Journal of Microbiology, Immunology and Infection*, 52(4), 516–525. <https://doi.org/10.1016/j.jmii.2019.03.003>
- Yan, Q., Ahn, S.H., dan Fowler Jr, V.G. (2015). Macrophage Phagocytosis Assay of *Staphylococcus aureus* by Flow Cytometry. *Bio protocol vol 5*
- Yang, J., Liu, Y., Xu, J., & Li, B. (2010). Characterization of A New Protective Antigen of *Streptococcus canis*. *Vet res Commun* 413–421. <https://doi.org/10.1007/s11259-010-9414-1>
- Yoshida, H., Goto, M., Tsuyuki, Y., Kim, J. S., & Takahashi, T. (2024). *Streptococcus canis* Transcriptomic Modifications in Host Cell Entry Environments of Human Keratinocytes. *BMC Genomics*, 25(1), 1028. <https://doi.org/10.1186/s12864-024-10974-z>