

## DAFTAR PUSTAKA

- Agustin, M. 2021. Microscopic Profile of Mice Liver Tissue (*Mus musculus*) Fixed with *Neutral Buffered Formalin* (NBF 10%) and Helly Solution. *Jurnal Laboratorium Medis*, 3(2): 90-95.
- Ajileye, A. B., & Esan, E. O. 2022. Fixation and Fixatives in Histopathology: A Review. *Jurnal Sains Murni dan Terapan Bayero*, 15(1): 231-243.
- Alexandru, I. 2011. Experimental Use of Animals in Research Spa. *Balneo Research Journal*, 2(1): 65-69.
- Al-Hamdany, M. Z., & Al-Hubaity, A. Y. 2014. The Histological and Histochemical Changes of the Rat's Liver Induced by 5-fluorouracil. *Iraqi Journal of Veterinary Sciences*, 28(2): 95-103.
- Allimi, H. S., Septhya, S. R. V., Apriliyani, T., Nuriliani, A., Retnoaji, B., Saragih, H., & Rohmah, Z. 2023. Larutan Fiksatif Makromolekul pada Sediaan Histologis. *Berkala Ilmiah Biologi*, 14(3): 41-49.
- Ami, D., Di, S. M., Forcella, M., Meraviglia, V., Baccarin, M., Doglia, S. M., & Terzoli, G. 2014. Role of Water in Chromosome Spreading and Swelling Induced by Acetic Acid Treatment: A FTIR Spectroscopy Study. *European Journal of Histochemistry*, 58(1): 33-39.
- Anthony, L., & Mescher, L. C. U. J. 2016. *Junqueira's Basic Histology Text and Atlas 14<sup>th</sup> Edition*. Mc Graw Hill Education, New York.
- Arapahni, S. J., Mahmud, D., Gusnandjar, A., & Durachim, A. 2019. Perbandingan Fiksasi Menggunakan NBF 10% dan Madu terhadap Keutuhan Komponen Jaringan Hati dengan Pewarnaan HE. *Jurnal Riset Kesehatan Depkes Bandung*, 11(2): 224-231.
- Aryadi, T., & Suryono, H., 2017. Kualitas Sediaan Jaringan Kulit Metode *Microwave* dan *Conventional Histoprocesing* Pewarnaan Hematoksilin Eosin. *Jurnal Labora Medika*, 1(1): 7-11.
- Atik, R. 2019. Perbandingan Fiksasi Larutan Bouin dan Formalin pada Sediaan Preparat Histologi Testis Marmut. *Jurnal Kedokteran*, 4(2): 5-9.
- Bancroft, J. D., Suvarna, K. S., & Layton, C. 2018. *Bancroft's Theory and Practice of Histological Techniques 8<sup>th</sup> Edition*. Churchill Livingstone, Elsevier, USA.

- Bhat, A. H., & Samiea, H. 2021. Fixation and Different Type of Fixatives: Their Role and Function: A Review. *International Journal of Clinical and Diagnostic Patologi*, 4(4): 113-119.
- Bhattachryya, A., Gupta, B., Singh, A., Sah, K., & Gupta, V. 2018. Probing Natural Substitute for Formalin: Comparing Honey, Sugar and Jaggery Syrup as Fixative. *National Journal of Maxillofacial Surgery*, 9(1): 14-21.
- Carson, F. L., & Capellano, C. H. 2015. *Histotechnology. A Self-Instructional Text*. American Society Clinical Pathology, Chicago.
- Chen, H., Xiao, H., & Pang, J. 2020. Parameter Optimization and Potential Bioactivity Evaluation of a Betulin Extract from White Birch Bark. *Plants*, 9(3): 1-15.
- Chung, J.Y., Song J. S., Ylaya, K., Sears, J. D., Choi, L., Cho, H., Rosenberg, A. Z., & Hewitt, S. M. 2018. Histomorphological and Molecular Assessments of the Fixation Times Comparing Formalin and Ethanol-Based Fixatives. *Journal of Histochemistry & Cytochemistry*, 66(2): 121-135.
- Dafrita, I. E., & Sari, M. 2020. Senduduk dan Ubi Jalar Ungu sebagai Pewarna Preparat Squash Akar Bawang Merah. *Jurnal Pendidikan Biologi*, 5(1): 46-55.
- Daningsih, E., & Mardiyyaningsih, A. N. 2021. Peningkatan Kompetensi Mahasiswa Prodi Pendidikan Biologi melalui Pembimbingan Pembuatan Preparat Awetan. *Pena Kreatif: Jurnal Pendidikan*, 10(2): 52-59.
- Delaney, M. A., Piper, M. Treuting., & Jamie, L. Rothenburger. 2018. *Rodentia. Pathology of Wildlife and Zoo Animals*. Elsevier, USA.
- Dewi, A. K., & Komohara, C. A. 2020. Brain Structure Morphology after Being Fixated with Ethanol on Electron Microscope. *International Journal Morphol*, 38(2): 305-308.
- Ellenburg, J. L., Kolettis, P., Drwiega, J. C., Posey, A. M., Goldberg, M., Mehrad, M., Giannico, G., & Gordetsky, J. 2020. Formalin Versus Bouin Solution for Testis Biopsies: Which Is the Better Fixative? *Clinical Patologi*, 13(2): 1-4.
- Ellywati. 2018. Penentuan Waktu yang Tepat pada Proses *Staining* dalam Pembuatan Preparat Hitologi Hati. *Journal on Biology of Andalas University (JbioUA)*, 1(1): 28-30.
- Eroschenko. V. P., & Mariano, S. H. 2013. *diFiore's Atlas of Histology with Functional Correlations*. Lippincott Williams & Wilkins, Philadelphia.

- Fan, S., Yang, G., Zhang, J., Li, J., & Bai, B. 2020. Optimization of Ultrasound-Assisted Extraction Using Response Surface Methodology for Simultaneous Quantitation of Six Flavonoids in Flos Sophorae Immaturus and Antioxidant Activity. *Molecules*, 25(8): 2-24.
- García, M., Victory, N., Navarro-Sempere, A., & Segovia, Y. 2019. Students' Views on Difficulties in Learning Histology. *Anatomical Sciences Education*, 12(5): 541-549.
- Harijati, N., Samino, S., Indriyani, S., & Soewondo, A. 2017. *Mikroteknik Dasar*. UB Press, Malang.
- Haq, H. N., Aris, R., & Dini, S. D. 2022. Efek Infusa Daun Sirsak (*Annona muricata L.*) terhadap Jumlah Nekrosis dan Diameter Kardiomyosit serta Densitas Kolagen Jantung Tikus Model Obesitas. *Jurnal Bio Komplementer Medicine*, 9(1): 1-12.
- Hoffman, E. A., Brian, L. F., Llyod, M. S., David, T. A. 2015. Formaldehyde Crosslinking: A Tool for the Study of Chromatin Complexes. *The Journal of Biological Chemistry*, 290(44): 26404-26411.
- Howard, W., & Wilson, B. 2014. Tissue Fixation and the Effect of Molecular Fixatives on Downstream Staining Procedures. *Methods*, 70(1): 12-19.
- Iriani, D., & Yusfiati. 2015. *Buku Ajar Mikroteknik*. UR Press, Pekanbaru.
- Inderiati, D., & Pratiwi, B. E. 2021. Perbandingan Larutan Fiksatif Nafs dengan Alkohol 96%-NBF 10% dalam Pembuatan Blok Sel pada Sampel Cairan Pleura. *Jurnal of Indonesian Medical Laboratory and Science*, 2(1): 39-54.
- Integrated Taxonomic Information System (ITIS). 2023. *Rattus norvegicus* (Berkenhout, 1769). Diakses 25 Januari 2025, dari <https://www.gbif.org/species/102121574>.
- Jayadi, G. T., Erick, K., & Lilis, P. F. 2021. Penggunaan Metanol sebagai Larutan Fiksatif Alternatif dalam Proses Fiksasi. *Technology in Medical Laboratory for Environmental Disease*, 2(1): 32-38.
- Jiménez-Moreno, N., Volpe, F., Moler, J. A., Esparza, I., & Ancín-Azpilicueta, C. 2019. Impact of Extraction Conditions on the Phenolic Composition and Antioxidant Capacity of Grape Stem Extracts. *Antioxidants*, 8(12): 1-17.
- Kareem, D. A & Majdy, F. M. 2024. A Brief Overview of the Role and Function of Fixative and Fixation: Review. 2024. *Thi-Qar Journal of Agricultural Research*, 13(1): 265-272.

- Khristian, E., & Inderiati, D. 2017. *Bahan Ajar Teknologi Laboratorium Medis Sitohistoteknologi*. Pusat Pendidikan Sumber Daya Manusia Kesehatan Kementrian Kesehatan RI, Jakarta.
- Litviňuková, M., Carlos, T. L., Henrike, M., Daniel, R., Catherine, L. W., Eric, L. L., Masatoshi, K., Krzysztof, P., Matthias, H., Michael, L., Emily, R. N., Kenny, R., Liz, T., Eirini, S. F., Daniel, M. D., Barbara, M., Hiroko, W., Joshua, M. G., Sara, S., Krishnaa, T. M., Kourosh, S., Giannino, P., Joseph, J. B., Hongbo, Z., Hao, Z., Annisa, V., Gavin, Y. O., Omer, A. B., Seidman, Christine, E. S., Michela, N., Norbert, H., & Sarah, A. T. 2020. Cells and Gene Expression Programs in the Adult Human Heart. *Nature*, 588(7838): 466-472.
- Lum, A. Y. W., Phyu, S. O., Saint, N. A., Lim, W., Valerie, C. C. X., & Purusotham, K. 2023. Natural Fixatives Alternative to Formalin in Histopathology: A Systematic Review. *Med Journal Malaysia*, 78(1): 98-108.
- Mardiati, S. M., & Saraswati, T. R. 2014. *Buku Penuntun Praktikum Mikroteknik Hewan*. Universitas Diponegoro, Semarang.
- Mescher, A.L. 2010. *Junqueira's Basic Histology: Text & Atlas*. 12<sup>th</sup> Edition, McGraw Hill Companies, New York.
- Mescher, A. L. 2015. *Junqueira's Basic Histology: Text & Atlas*. 14<sup>th</sup> Edition, McGraw Hill Companies, New York.
- Mitrut, R., Stepan, A. E., & Pirici, D. 2018. Histopathological Aspects of the Myocardium in Dilated Cardiomyopathy. *Current Health Sciences Journal*, 44(3): 243-249.
- Murphy, C., & Lazzara, R. 2016. Current Concepts of Anatomy and Electrophysiology the Sinus Node. *Journal of Interventional Cardiac Electrophysiology*, 46(1): 9-18.
- Mustami, M. K. 2017. Validitas Pengembangan Penuntun Praktikum Ilustratif Mikroteknik Hewan Berbasis Guided Inquiry. *Jurnal Ilmiah Pena*, 11(1): 75-83.
- Musyarifah, Z., & Agus, S. 2018. Proses Fiksasi pada Pemeriksaan Histopatologik. *Jurnal Kesehatan Andalas*, 7(3): 443-453.
- Nuralim, E. R., Rahayu, I. D., & Becti, R. S. 2017. Comparative Analysis of Fixation Using Carnoy Solution and Formalin Solution in Chicken Embryo's Somites, Neutral Tube, and Vascular Age of 48 Hours with Hematoksilin-Eosin Staining. *Majalah Kesehatan FKUB*, 4(1): 9-16.
- Patel, M. D., & Kathleen, J. G. 2014. Desmosomes in the Heart: A Review of

- Clinical and Mechanistic Analyses. *Cell Communication & Adhesion*, 21(1): 109-128.
- Pawlina, W., & Drake, R. L. 2016. Authentic Learning in Anatomy: A Primer on Pragmatism. *Anatomical Sciences Education*, 9(1): 5-7.
- Peckham, M. 2014. *Histologi at a Glance*. Erlangga Press, Jakarta.
- Perry, C., Chung J.Y., Ylaya, K., Choi C.H., Simpson, A., Matsumoto K.T., Smith, W.A., & Hewitt, S.M. 2016. A Buffered Alcohol-Based Fixative for Histomorphologic and Molecular Applications. *Journal of Histochemistry and Cytochemistry*, 64(7): 425-440.
- Piper, M. T., Suzanne, M. D., & Kathleen, S. M. 2017. *Comparative Anatomy and Histology: A Mouse and Human Atlas*. United Kingdom, Elsevier.
- Pratiwi, H. C., & Manan, A. 2015. Teknik Dasar Histologi pada Ikan Gurami (*Osfrophonemus gourami*). *Jurnal Ilmiah Perikanan dan Kelautan*, 7(2): 153-157.
- Purba, E. E. D. A. M., Marbun, D. I., Lubis, A., Harianja, D., Herawati, N., & Sitorus, M. S. 2023. Perbandingan Efektivitas Fiksasi Alami Ekstrak Daun Kelor 75% dan NBF 10% pada Gambaran Makroskopis dan Mikroskopis Organ Manusia. *Mahesa: Malahayati Health Student Journal*, 3(9): 2858- 2875.
- Putri, A., Mulia, Y. S., Sulaeman, S., & Wiryanti, W. 2023. Pengaruh Variasi Waktu Perendaman dengan Alkohol terhadap Kualitas Preparat Permanen Larva *Culex* sp. *Jurnal Kesehatan Siliwangi*, 4(1): 340-345.
- Roth, G. M., David, M. B., & Elise, R. P. 2014. Isolation and Physiological Analysis of Mouse Cardiomyocytes. *Journal of Visualized Experiments*, 5(1): 2-9.
- Rubina, M. P., Khrisnan, A. M., Basheer, R., Safeer, M., & Soumya, V. 2020. Assesment of Staining Quality of Curcumin as as Substitute for Eosin in Hematoxyline and Eosin Staining in Histopathology. *Journal of Research in Medical and Dental Science*, 8(5): 146-150.
- Ruegg, M., & Meinen, S. 2014. Histopathology in Hematoxylin & Eosin Stained Muscle Sections. *Congenital Muscular Dystrophy*, 1(2): 1-9.
- Rusmiatik. 2019. Perbandingan Fiksasi Larutan Bouin dan Formalin pada Sediaan Preparat Histologi Testis Marmut. *Jurnal Kedokteran*, 4(2): 5-9.
- Rukminingsih, A. G., & Latief, M. A. 2020. Metode Penelitian Pendidikan. Penelitian Kuantitatif, Penelitian Kualitatif, Penelitian Tindakan Kelas. *In Journal of Chemical Information and Modeling*, 53(9): 29-37.

- Salsabila, Q., Adang, D., Wiwin, W., & Mamat, R. 2023. Perbandingan Kualitas Hasil Preparat Histologi Jaringan Ginjal dengan Fiksasi Menggunakan *Neutral Buffer Formalin* 10% dan Etanol 50%. *Jurnal Kesehatan Siliwangi*, 4(1): 327-333.
- Santana, G. S., Fabio, A. A., Licinio, E., Maria L. B., Jemima F. R., Alexia, G., Ana L. M., & Katia, C. L. 2019. *Compared Anatomy and Histology between Mus musculus Mice (Swiss) and Rattus norvegicus Rats (Wistar)*. University of Rio de Janeiro, Brazil
- Santoso, S. 2020. *Panduan Lengkap SPSS 26*. Elex Media Komputindo, Jakarta.
- Schroder, H., Moser, N., & Huggenberger, S. 2020. *Nerooanatomy of the Mouse: an Introduction*. Springer.
- Sengupta, P. 2013. The Laboratory Rat: Relating its Age with Human's. *International Journal Prev Med*, 4(6): 30-624.
- Singh, H., Bishen, K.A. Garg, D. Sukhija, H. Sharma, D., & Tomar, U. 2019. Fixation and Fixatives: Roles and Functions: A Short Review. *Dental Journal of Advance Studies*, 7(2): 51-55.
- Singh, G., & Nayak, B. 2022. Processing of Tissue Specimen with Special Reference to Fatty Tissue. *Tissue Scaffolds*, 2(2): 493-503.
- Sinha, N., Meghanand, T. N., Sunitha, J. D., Geetanshu, D., Neelakshi, R., & Shreya, G. 2017. Comparative Efficacies of a Natural Fixative with a Conventional Fixative. *Journal of Oral & Maxillofacial Patologi*, 21(3): 1-5.
- Sumiwi, Y. A. A., Rina, S., Dewajani, P., Dewi, K. P., Jajah, F., Dian, E. S & Satrio, A. W. 2023. *Buku Ajar Histologi*. Gadjah Mada University Press, Yogyakarta.
- Sun, Y., Seung, M. L., & Myung, J. M. 2020. Fine Structure of the Intercalated Disc and Cardiac Junctions in the Black Widow Spider *Latrodectus mactans*. *Appl microsc*, 50(20): 2-9.
- Suvarna, K. S., Layton, C., & Bancroft, J. D. 2019. *Bancroft's Theory and Practice of Histological Techniques, Ophthalmic Pathology: The Evolution of Modern Concepts*. Elsevier, Amsterdam.
- Suyatno., & Gio, P. U. 2017. *Statistika Nonparametrik dengan SPSS, Minitab, dan R*. USU Press, Medan.
- Suzuki, Y., Imada, T., Yamaguchi, I., Yoshitake, H., Sanada, H., Kashiwagi, T., & Takaba, K. 2012. Effects of Prolonged Water Washing of Tissue Samples

- Fixed in Formalin on Histological Staining. *Biotechnic & Histochemistry*, 87(4): 241-248.
- Thavarajah, R., Mudimbaimannar, V. K., Joshua, E., Umadevi, K. R., & Kannan, R. 2012. Chemical and Physical Basics of Routine Formaldehyde Fixation. *Journal Oral Maxillofac Pathol*, 16(3): 400-405.
- Tominik, V. I. T., & Haiti, M. 2020. Limbah Air AC sebagai Pelarut Media *Sobouraud Dextrose Agar* (SDA) pada Jamur *Candida Albicans*. *Masker Medika*, 8(1): 121-132.
- Treuting. P. M., Dintzis. S. M., & Montine. K. S. 2018. *Comparative Anatomy and Histology A Mouse, Rat and Human Atlas 2<sup>nd</sup> Edition*. Elsevier, Chennai.
- Tsuroyya, F. A., Khotimah, N. R., Elsa, O. R., & Liss, D. D. A. 2025. Tinjauan Organ Jantung sebagai Pusat Kehidupan dalam Sistem Kardiovaskular. *Jurnal Mahasiswa Ilmu Farmasi dan Kesehatan*, 3(1): 6-11.
- Ubruangge, Tonci., Sunny, W., Sonny, J. R. K. 2016. Gambaran Histologik Otot Jantung pada Hewan Coba *Postmortem*. *Jurnal e-Biomedik (eBm)*, 4(2): 1-6.
- Veuthey T., Herrera G., & Doderro. 2014. Dyes and Stains: from Molecular Structure to Histological Application. *Front Biosci*, 19(1): 91-112.
- Wibowo, T., & Maulani, Y. 2024. Perbedaan Hasil Pewarnaan Hematoksilin Eosin Preparat Limfonodi pada Proses *Clearing* Menggunakan *Xylol* dan Minyak Zaitun. *Plenary Health: Jurnal Kesehatan Paripurna*, 1(3): 197-201.
- Widiartini, W., Siswati, E., Setiyawati, A., Rohmah, I. M., & Prastyo, E. 2015. Pengembangan Usaha Produksi Tikus Putih (*Rattus norvegicus*) Tersertifikasi dalam Memenuhi Kebutuhan Hewan Laboratorium. *Jurnal Ilmiah*, 2(3): 1-8.
- Wulansari, N., Hasna, D., Rita, H., Tia, W. E., & Erisca, A. U. 2024. Analisis Kualitas Sediaan Histologi menggunakan *Beeswax* Super Grade sebagai Alternatif Pengganti Parafin dalam Proses *Embedding*. *Journal of Medical Studies*, 4(2): 97-104.
- Yohana, W. 2017. Perbandingan Cairan Fiksasi Bouin dengan *Buffer* Formalin terhadap Hepar Tikus Putih. *Journal of Syiah Kuala Dentistry Society*, 2(2): 97-101.
- Yunalda, I. 2016. Kerusakan Jaringan Histopatologi Akibat Fiksasi Formalin 10%. *Tesis*. Universitas Sriwijaya, Palembang.