

## REFERENCES

Abderahmene, A. *et al.* (2022) 'The pharmacogenetics of mycophenolate mofetil in Tunisian renal transplant patients', *Personalized Medicine*, 19(5), pp. 383–393. Available at: <https://doi.org/10.2217/pme-2021-0092>.

Alejandro Madrigal, J. and Barber, L.D. (2016) 'Matching inside and outside the HLA molecule in allogeneic hematopoietic stem cell transplantation.', *Haematologica*. Italy, pp. 1131–1132. Available at: <https://doi.org/10.3324/haematol.2016.150995>.

Alelign, T. *et al.* (2018) 'Kidney Transplantation: The Challenge of Human Leukocyte Antigen and Its Therapeutic Strategies.', *Journal of immunology research*, 2018, p. 5986740. Available at: <https://doi.org/10.1155/2018/5986740>.

Alsaqa'aby, M. *et al.* (2023) 'Cost-Utility of Immunosuppressive Therapy Post-renal Transplantation in Saudi Arabia: The Saudi Ministry of Health Perspective', *Value in Health Regional Issues*, 33, pp. 56–64. Available at: <https://doi.org/10.1016/j.vhri.2022.08.014>.

Anwar, I.J. *et al.* (2022) 'Harnessing the B Cell Response in Kidney Transplantation - Current State and Future Directions.', *Frontiers in immunology*, 13, p. 903068. Available at: <https://doi.org/10.3389/fimmu.2022.903068>.

Ardiansyah, E. *et al.* (2024) 'Sequencing whole genomes of the West Javanese population in Indonesia reveals novel variants and improves imputation accuracy', *Frontiers in Genetics*, 15(February), pp. 1–9. Available at: <https://doi.org/10.3389/fgene.2024.1492602>.

Arns, W. (2007) 'Noninfectious Gastrointestinal (GI) Complications of Mycophenolic Acid Therapy: A Consequence of Local GI Toxicity?', *Transplantation Proceedings*, 39(1), pp. 88–93. Available at: <https://doi.org/10.1016/j.transproceed.2006.10.189>.

Basappa, J. *et al.* (2024) 'Inosine Monophosphate Dehydrogenase-2 (IMPDH2) As the Potential Novel Therapeutic Target in Mantle Cell Lymphoma (MCL): The Underlying Tyrosine Phosphorylation-Based Activation Mechanism and Translational Implications', *Blood*, 144(Supplement 1), p. 1602. Available at: <https://doi.org/10.1182/blood-2024-203257>.

Basu Editor, C. (no date) *PCR Primer Design Second Edition Methods in Molecular Biology 1275*. Available at: <http://www.springer.com/series/7651>.

Benjanuwattra, J. *et al.* (2020) 'Therapeutic potential and molecular mechanisms of mycophenolic acid as an anticancer agent', *European Journal of Pharmacology*, 887, p. 173580. Available at: <https://doi.org/https://doi.org/10.1016/j.ejphar.2020.173580>.

Benjanuwattra, J., Pruksakorn, D. and Koonrunsesomboon, N. (2020) 'Mycophenolic Acid and Its Pharmacokinetic Drug-Drug Interactions in Humans: Review of the Evidence and Clinical Implications.', *Journal of clinical pharmacology*, 60(3), pp. 295–311. Available at: <https://doi.org/10.1002/jcph.1565>.

Cengiz, B. *et al.* (2015) 'Differential expression of the UGT1A family of genes in stomach cancer tissues', *Tumour biology: the journal of the International Society for Oncodevelopmental Biology and Medicine*, 36(8), pp. 5831–5837. Available at: <https://doi.org/10.1007/S13277-015-3253-1>.

Chaudhary, R. and Maurya, G. (2020) 'Encyclopedia of Animal Cognition and Behavior',

*Encyclopedia of Animal Cognition and Behavior* [Preprint], (April). Available at: <https://doi.org/10.1007/978-3-319-47829-6>.

Coscia, L.A. *et al.* (2015) 'Update on the Teratogenicity of Maternal Mycophenolate Mofetil.', *Journal of pediatric genetics*, 4(2), pp. 42–55. Available at: <https://doi.org/10.1055/s-0035-1556743>.

Cox, M.P. (2004) 'Genetic patterning at Austronesian contact zones', *Journal and proceedings of the Royal Society of New South Wales*, 137(1–2), pp. 48–48. Available at: <https://doi.org/10.5962/p.361522>.

Dalal, P. *et al.* (2009) 'Mycophenolate mofetil: safety and efficacy in the prophylaxis of acute kidney transplantation rejection.', *Therapeutics and clinical risk management*, 5(1), pp. 139–149. Available at: <https://doi.org/10.2147/tcrm.s3068>.

David, V. *et al.* (2021) 'An Analysis of Pharmacogenomic-Guided Pathways and Their Effect on Medication Changes and Hospital Admissions: A Systematic Review and Meta-Analysis.', *Frontiers in genetics*, 12, p. 698148. Available at: <https://doi.org/10.3389/fgene.2021.698148>.

Dunn, A.M. *et al.* (2011) 'Cloaking malware with the trusted platform module', *Proceedings of the 20th USENIX Security Symposium*, pp. 395–410.

Earnshaw, S.R. *et al.* (2008) 'Lifetime cost-effectiveness of calcineurin inhibitor withdrawal after de novo renal transplantation', *Journal of the American Society of Nephrology*, 19(9), pp. 1807–1816. Available at: <https://doi.org/10.1681/ASN.2007040495>.

Felipe, C. *et al.* (2017) 'Cost-Effectiveness Analysis of Everolimus versus Mycophenolate in Kidney Transplant Recipients Receiving No Pharmacological Prophylaxis for Cytomegalovirus Infection: A Short-Term Pharmacoeconomic Evaluation (12 Months)', *Value in Health Regional Issues*, 14, pp. 108–115. Available at: <https://doi.org/10.1016/j.vhri.2017.08.009>.

Ferguson, L.R. *et al.* (2016) 'Guide and Position of the International Society of Nutrigenetics/Nutrigenomics on Personalised Nutrition: Part 1 - Fields of Precision Nutrition.', *Journal of nutrigenetics and nutrigenomics*, 9(1), pp. 12–27. Available at: <https://doi.org/10.1159/000445350>.

Ferreira, P.C.L. *et al.* (2020) 'A short overview on mycophenolic acid pharmacology and pharmacokinetics.', *Clinical transplantation*, 34(8), p. e13997. Available at: <https://doi.org/10.1111/ctr.13997>.

de Fijter, J.W. (2005) 'The impact of age on rejection in kidney transplantation.', *Drugs & aging*, 22(5), pp. 433–449. Available at: <https://doi.org/10.2165/00002512-200522050-00007>.

Fragoulakis, V. *et al.* (2025) 'Cost-utility analysis of pharmacogenomics-guided tacrolimus treatment of Slovenian patients undergoing kidney transplantation in the U-PGx PREPARE study', *Pharmacogenomics Journal*, 25(1). Available at: <https://doi.org/10.1038/s41397-025-00365-2>.

Fukuda, T. *et al.* (2012) 'UGT1A9, UGT2B7, and MRP2 Genotypes Can Predict Mycophenolic Acid Pharmacokinetic Variability in Pediatric Kidney Transplant Recipients', *Therapeutic Drug Monitoring*, 34(6). Available at: [https://journals.lww.com/drug-monitoring/fulltext/2012/12000/ugt1a9\\_ugt2b7\\_and\\_mrp2\\_genotypes\\_can\\_predict.7.aspx](https://journals.lww.com/drug-monitoring/fulltext/2012/12000/ugt1a9_ugt2b7_and_mrp2_genotypes_can_predict.7.aspx).

Gardiner, K.M., Tett, S.E. and Staatz, C.E. (2018) 'Is Conversion from Mycophenolate Mofetil to Enteric-Coated Mycophenolate Sodium Justifiable for Gastrointestinal Quality of Life?', *Drugs in R&D*, 18(4), pp. 271–282. Available at: <https://doi.org/10.1007/s40268-018-0254-8>.

Gaziano, L. *et al.* (2022) 'Mild-to-Moderate Kidney Dysfunction and Cardiovascular Disease: Observational and Mendelian Randomization Analyses.', *Circulation*, 146(20), pp. 1507–1517. Available at: <https://doi.org/10.1161/CIRCULATIONAHA.122.060700>.

Girard, H. *et al.* (2004) 'Identification of common polymorphisms in the promoter of the UGT1A9 gene: Evidence that UGT1A9 protein and activity levels are strongly genetically controlled in the liver', *Pharmacogenetics*, 14(8), pp. 501–515. Available at: <https://doi.org/10.1097/01.fpc.0000114754.08559.27>.

Golshayan, D., Pascual, M. and Vogt, B. (2009) 'Mycophenolic acid formulations in adult renal transplantation - Update on efficacy and tolerability', *Therapeutics and Clinical Risk Management*, 5(1), pp. 341–351.

Gupta, N. (2019) 'DNA Extraction and Polymerase Chain Reaction.', *Journal of cytology*, 36(2), pp. 116–117. Available at: [https://doi.org/10.4103/JOC.JOC\\_110\\_18](https://doi.org/10.4103/JOC.JOC_110_18).

HALDANE, J.B. (1956) 'The estimation and significance of the logarithm of a ratio of frequencies.', *Annals of human genetics*, 20(4), pp. 309–311. Available at: <https://doi.org/10.1111/j.1469-1809.1955.tb01285.x>.

Hart, A. *et al.* (2021) 'OPTN/SRTR 2019 Annual Data Report: Kidney', *American Journal of Transplantation*, 21(S2), pp. 21–137. Available at: <https://doi.org/10.1111/ajt.16502>.

Hashmi, M.F., Benjamin, O. and Lappin, S.L. (2025) 'End-Stage Renal Disease.', in. Treasure Island (FL).

Hautz, T. *et al.* (2020) 'Long-term outcome after hand and forearm transplantation - a retrospective study.', *Transplant international : official journal of the European Society for Organ Transplantation*, 33(12), pp. 1762–1778. Available at: <https://doi.org/10.1111/tri.13752>.

Holt, C.D. (2017) 'Overview of Immunosuppressive Therapy in Solid Organ Transplantation', *Anesthesiology Clinics*, 35(3), pp. 365–380. Available at: <https://doi.org/https://doi.org/10.1016/j.anclin.2017.04.001>.

Hussain, Y. and Khan, H. (2022) 'Immunosuppressive Drugs', in *Encyclopedia of Infection and Immunity*. Elsevier, pp. 726–740. Available at: <https://doi.org/10.1016/B978-0-12-818731-9.00068-9>.

Ji, Q. *et al.* (2024) 'Post-transplant complications revealed by mycophenolate mofetil related transporters and metabolic enzymes gene polymorphisms in pediatric patients with hematological disorders.', *BMC cancer*, 24(1), p. 1516. Available at: <https://doi.org/10.1186/s12885-024-13227-0>.

Jiao, Z. *et al.* (2008) 'Population pharmacokinetic modelling for enterohepatic circulation of mycophenolic acid in healthy Chinese and the influence of polymorphisms in UGT1A9', *British Journal of Clinical Pharmacology*, 65(6), pp. 893–907. Available at: <https://doi.org/10.1111/j.1365-2125.2008.03109.x>.

Jung, H.Y. *et al.* (2020) 'Mycophenolic acid trough concentration and dose are associated with hematologic abnormalities but not rejection in kidney transplant recipients', *Journal of Korean Medical Science*, 35(24). Available at: <https://doi.org/10.3346/JKMS.2020.35.E185>.

Justiz Vaillant, A.A., Misra, S. and Fitzgerald, B.M. (2025) 'Acute Transplantation Rejection.', in. Treasure Island (FL).

Juvale, K., Shaik, A. and Kirubakaran, S. (2019) 'Inhibitors of inosine 5'-monophosphate dehydrogenase as emerging new generation antimicrobial agents', *MedChemComm*. Royal Society of Chemistry, pp. 1290–1301. Available at: <https://doi.org/10.1039/c9md00179d>.

Kaballo, M.A. *et al.* (2018) 'A comparative analysis of survival of patients on dialysis and after kidney transplantation', *Clinical Kidney Journal*, 11(3), pp. 389–393. Available at: <https://doi.org/10.1093/ckj/sfx117>.

Kaput, J. *et al.* (2004) 'Identification of genes contributing to the obese yellow Avy phenotype: caloric restriction, genotype, diet x genotype interactions.', *Physiological genomics*, 18(3 PG-316–24), pp. 316–324. Available at: <https://doi.org/https://dx.doi.org/10.1152/physiolgenomics.00065.2003>.

Kaye, A.D. *et al.* (2024) 'Tacrolimus- and Mycophenolate-Mediated Toxicity: Clinical Considerations and Options in Management of Post-Transplant Patients.', *Current issues in molecular biology*, 47(1). Available at: <https://doi.org/10.3390/cimb47010002>.

Kim, K.S. *et al.* (2004) 'Effects of peroxisome proliferator-activated receptor-gamma 2 Pro12Ala polymorphism on body fat distribution in female Korean subjects.', *Metabolism: clinical and experimental*, 53(12 PG-1538–43), pp. 1538–1543. Available at: <https://doi.org/https://dx.doi.org/10.1016/j.metabol.2004.06.019>.

Krall, P. *et al.* (2021) 'CYP3A5 and UGT1A9 Polymorphisms Influence Immunosuppressive Therapy in Pediatric Kidney Transplant Recipients', *Frontiers in Pharmacology*, 12. Available at: <https://doi.org/10.3389/fphar.2021.653525>.

Kuypers, D.R.J. *et al.* (2005) 'The impact of uridine diphosphate-glucuronosyltransferase 1A9 (UGT1A9) gene promoter region single-nucleotide polymorphisms T-275A and C-2152T on early mycophenolic acid dose-interval exposure in de novo renal allograft recipients', *Clinical Pharmacology and Therapeutics*, 78(4), pp. 351–361. Available at: <https://doi.org/10.1016/j.clpt.2005.06.007>.

Kuypers, D.R.J. *et al.* (2008) 'Current target ranges of mycophenolic acid exposure and drug-related adverse events: a 5-year, open-label, prospective, clinical follow-up study in renal allograft recipients.', *Clinical therapeutics*, 30(4), pp. 673–683. Available at: <https://doi.org/10.1016/j.clinthera.2008.04.014>.

Lamba, V. *et al.* (2014) 'PharmGKB summary: mycophenolic acid pathway.', *Pharmacogenetics and genomics*, 24(1), pp. 73–79. Available at: <https://doi.org/10.1097/FPC.000000000000010>.

Lentine, K.L. *et al.* (no date) *OPTN/SRTR 2021 Annual Data Report: Kidney Organ Procurement and Transplantation Network, United Network for Organ Sharing*.

Li, Q. and Lan, P. (2023) 'Activation of immune signals during organ transplantation', *Signal Transduction and Targeted Therapy*, 8(1), p. 110. Available at: <https://doi.org/10.1038/s41392-023-01377-9>.

Mancilla, V.J. *et al.* (2020) 'Understanding the Interplay Between Health Disparities and Epigenomics.', *Frontiers in genetics*, 11, p. 903. Available at: <https://doi.org/10.3389/fgene.2020.00903>.

Martinez-Mier, G. and Salazar-Ramirez, A. (2016) 'The Cost of Gastrointestinal Adverse Events and the Impact of Dose-Reductions/Discontinuations on Acute Rejection in Kidney Transplant Patients of Mycophenolate Mofetil-Related Compared to Enteric-

Coated Mycophenolate Sodium: A Pharmacoeconomic Study', *Transplantation Proceedings*, 48(2), pp. 588–595. Available at: <https://doi.org/10.1016/j.transproceed.2016.02.017>.

Mazidi, T. *et al.* (2013) *Impact of UGT1A9 Polymorphism on Mycophenolic Acid Pharmacokinetic Parameters in Stable Renal Transplant Patients*, *Shaheed Beheshti University of Medical Sciences and Health Services Iranian Journal of Pharmaceutical Research*.

Meech, R. and Mackenzie, P.I. (2010) 'UGT3A: novel UDP-glycosyltransferases of the UGT superfamily.', *Drug metabolism reviews*, 42(1), pp. 45–54. Available at: <https://doi.org/10.3109/03602530903205823>.

Merrigan, S.D. *et al.* (2017) 'LC–MS/MS method for quantitation of mycophenolic acid, mycophenolic acid acyl-glucuronide, and 7-O-mycophenolic acid glucuronide in serum', *Clinical Mass Spectrometry*, 3, pp. 41–48. Available at: <https://doi.org/https://doi.org/10.1016/j.clinms.2017.07.001>.

Metz, D.K. *et al.* (2019) 'Optimizing Mycophenolic Acid Exposure in Kidney Transplant Recipients: Time for Target Concentration Intervention.', *Transplantation*, 103(10), pp. 2012–2030. Available at: <https://doi.org/10.1097/TP.0000000000002762>.

Michelon, H. *et al.* (2010) 'SLCO1B1 genetic polymorphism influences mycophenolic acid tolerance in renal transplant recipients', *Pharmacogenomics*, 11(12), pp. 1703–1713. Available at: <https://doi.org/10.2217/pgs.10.132>.

Montgomery, R.A. *et al.* (2018) 'HLA in transplantation', *Nature Reviews Nephrology*, 14(9), pp. 558–570. Available at: <https://doi.org/10.1038/s41581-018-0039-x>.

Morris, P.J., Knechtle, S.J. and Marson, L.P. (no date) *Kidney transplantation : principles and practice*.

Na Takuathung, M., Sakuludomkan, W. and Koonrungsesomboon, N. (2021) 'The Impact of Genetic Polymorphisms on the Pharmacokinetics and Pharmacodynamics of Mycophenolic Acid: Systematic Review and Meta-analysis', *Clinical Pharmacokinetics*. Adis, pp. 1291–1302. Available at: <https://doi.org/10.1007/s40262-021-01037-7>.

Naik, R.H. and Shawar, S.H. (2023) 'Renal Transplantation Rejection', *StatPearls Publishing*, 01, p. 1. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK553074/> (Accessed: 11 May 2024).

Najafov, A. and Hoxhaj, G. (2017) *PCR Guru: An Ultimate Benchtop Reference for Molecular Biologists*.

Nguyen, T.T. *et al.* (2020) 'Pharmacogenomics in kidney transplant recipients and potential for integration into practice.', *Journal of clinical pharmacy and therapeutics*, 45(6), pp. 1457–1465. Available at: <https://doi.org/10.1111/jcpt.13223>.

P. Verma, S. *et al.* (2015) 'Validated, Stability Indicating HPTLC Method for the Determination of Mycophenolate Mofetil in Human Plasma', *Current Analytical Chemistry*, 7(3), pp. 216–219. Available at: <https://doi.org/10.2174/1573411011107030216>.

Pilch, N.A., Bowman, L.J. and Taber, D.J. (2021) 'Immunosuppression trends in solid organ transplantation: The future of individualization, monitoring, and management.', *Pharmacotherapy*, 41(1), pp. 119–131. Available at: <https://doi.org/10.1002/phar.2481>.

Primorac, D., Höppner, W. and Bach-Rojecky, L. (no date) *Pharmacogenomics in Clinical Practice*.

Redondo-Pachón, D. *et al.* (2023) 'Evolution of kidney allograft loss causes over 40 years

(1979-2019).', *Nefrologia*, 43(3), pp. 316–327. Available at: <https://doi.org/10.1016/j.nefro.2023.07.003>.

'Riskesdas 2018' (no date).

Roufosse, C. *et al.* (2018) 'A 2018 Reference Guide to the Banff Classification of Renal Allograft Pathology', *Transplantation*, 102(11), pp. 1795–1814. Available at: <https://doi.org/10.1097/TP.0000000000002366>.

Rousseau, A. *et al.* (2010) 'Cost-effectiveness analysis of individualized mycophenolate mofetil dosing in kidney transplant patients in the APOMYGRE trial', *Transplantation*, 89(10), pp. 1255–1262. Available at: <https://doi.org/10.1097/TP.0b013e3181d75952>.

Ruschel, L.R. *et al.* (2017) 'Study on the association of UGT1A9 gene c.98T>C polymorphism and mycophenolic acid plasma levels in renal transplant patients.', *Genetics and molecular research: GMR*, 16(2). Available at: <https://doi.org/10.4238/gmr16029598>.

Sánchez-Fructuoso, A.I. *et al.* (2009) 'The Prevalence of Uridine Diphosphate-Glucuronosyltransferase 1A9 (UGT1A9) Gene Promoter Region Single-Nucleotide Polymorphisms T-275A and C-2152T and Its Influence on Mycophenolic Acid Pharmacokinetics in Stable Renal Transplant Patients', *Transplantation Proceedings*, 41(6), pp. 2313–2316. Available at: <https://doi.org/10.1016/j.transproceed.2009.06.038>.

Sarkar, M. *et al.* (2015) 'Outcomes in liver transplantation: Does sex matter?', *Journal of Hepatology*, 62(4), pp. 946–955. Available at: <https://doi.org/https://doi.org/10.1016/j.jhep.2014.11.023>.

Scalzotto, E. *et al.* (2017) 'Single Nucleotide Polymorphism Profiles of Patients with Acute Renal Rejection to Personalize Immunosuppressive Therapy: Preliminary Results from An On-Going, Italian Study', *Journal of Organ Transplantation*, 1(1), pp. 17–31. Available at: <https://doi.org/10.14302/issn.2576-9359.jot-17-1603>.

van Schaik, R.H.N. *et al.* (2009) 'UGT1A9 -275T>A/-2152C>T polymorphisms correlate with low MPA exposure and acute rejection in MMF/tacrolimus-treated kidney transplant patients.', *Clinical pharmacology and therapeutics*, 86(3), pp. 319–327. Available at: <https://doi.org/10.1038/clpt.2009.83>.

Van Schaik, R.H.N. *et al.* (2009) 'UGT1A9 -275T>A/-2152C>T polymorphisms correlate with low MPA exposure and acute rejection in MMF/tacrolimus-treated kidney transplant patients', *Clinical Pharmacology and Therapeutics*, 86(3), pp. 319–327. Available at: <https://doi.org/10.1038/clpt.2009.83>.

Shaw, L.M. *et al.* (2003) 'Mycophenolic Acid Pharmacodynamics and Pharmacokinetics Provide a Basis for Rational Monitoring Strategies', *American Journal of Transplantation*, 3(5), pp. 534–542. Available at: <https://doi.org/10.1034/j.1600-6143.2003.00079.x>.

Shivaswamy, V., Boerner, B. and Larsen, J. (2016) 'Post-Transplant Diabetes Mellitus: Causes, Treatment, and Impact on Outcomes.', *Endocrine reviews*, 37(1), pp. 37–61. Available at: <https://doi.org/10.1210/er.2015-1084>.

Shu, Q. *et al.* (2021) 'Influence of SLCO1B1 521T>C, UGT2B7 802C>T and IMPDH1 -106G>A Genetic Polymorphisms on Mycophenolic Acid Levels and Adverse Reactions in Chinese Autoimmune Disease Patients.', *Pharmacogenomics and personalized medicine*, 14, pp. 713–722. Available at: <https://doi.org/10.2147/PGPM.S295964>.

Sombogaard, F. *et al.* (2009) 'Interpatient variability in IMPDH activity in MMF-treated renal transplant patients is correlated with IMPDH type II 3757T > C polymorphism.',

*Pharmacogenetics and genomics*, 19(8), pp. 626–634. Available at: <https://doi.org/10.1097/FPC.0b013e32832f5f1b>.

Soraru, J. *et al.* (2022) ‘The Evolving Role of Diagnostic Genomics in Kidney Transplantation’, *Kidney International Reports*. Elsevier Inc., pp. 1758–1771. Available at: <https://doi.org/10.1016/j.ekir.2022.05.019>.

Spellman, S.R. (2022) ‘Hematology 2022-what is complete HLA match in 2022?’, *Hematology. American Society of Hematology. Education Program*, 2022(1), pp. 83–89. Available at: <https://doi.org/10.1182/hematology.2022000326>.

Supit, T. *et al.* (2019) ‘Kidney transplantation in Indonesia: An update’, *Asian Journal of Urology*, 6(4), pp. 305–311. Available at: <https://doi.org/10.1016/j.ajur.2019.02.003>.

Tamargo, C.L. and Kant, S. (2023) ‘Pathophysiology of Rejection in Kidney Transplantation’, *Journal of Clinical Medicine*. Multidisciplinary Digital Publishing Institute (MDPI). Available at: <https://doi.org/10.3390/jcm12124130>.

Tantisattamo, E. *et al.* (2020) ‘Approach and Management of Hypertension After Kidney Transplantation.’, *Frontiers in medicine*, 7, p. 229. Available at: <https://doi.org/10.3389/fmed.2020.00229>.

Tett, S.E. *et al.* (2011) ‘Mycophenolate, clinical pharmacokinetics, formulations, and methods for assessing drug exposure.’, *Transplantation reviews (Orlando, Fla.)*, 25(2), pp. 47–57. Available at: <https://doi.org/10.1016/j.trre.2010.06.001>.

The World Bank (2023) ‘A New Era in Development ANNUAL REPORT 2023’, *World Bank Group* [Preprint], (March).

Thongprayoon, C. *et al.* (2020) ‘Recent Advances and Clinical Outcomes of Kidney Transplantation.’, *Journal of clinical medicine*. Switzerland. Available at: <https://doi.org/10.3390/jcm9041193>.

Thurlow, J.S. *et al.* (2021) ‘Global Epidemiology of End-Stage Kidney Disease and Disparities in Kidney Replacement Therapy.’, *American journal of nephrology*, 52(2), pp. 98–107. Available at: <https://doi.org/10.1159/000514550>.

Tumonggor, M.K. *et al.* (2013) ‘The Indonesian archipelago: An ancient genetic highway linking Asia and the Pacific’, *Journal of Human Genetics*, 58(3), pp. 165–173. Available at: <https://doi.org/10.1038/jhg.2012.154>.

‘UGT1A9 Gene - GeneCards \_ UD19 Protein \_ UD19 Antibody’ (no date).

Verbelen, M., Weale, M.E. and Lewis, C.M. (2017) ‘Cost-effectiveness of pharmacogenetic-guided treatment: are we there yet?’, *The pharmacogenomics journal*, 17(5), pp. 395–402. Available at: <https://doi.org/10.1038/tpj.2017.21>.

Wiebe, C. *et al.* (2017) ‘Class II Eplet Mismatch Modulates Tacrolimus Trough Levels Required to Prevent Donor-Specific Antibody Development.’, *Journal of the American Society of Nephrology: JASN*, 28(11), pp. 3353–3362. Available at: <https://doi.org/10.1681/ASN.2017030287>.

Xie, X. *et al.* (2015) ‘Associations of UDP-glucuronosyltransferases polymorphisms with mycophenolate mofetil pharmacokinetics in Chinese renal transplant patients.’, *Acta pharmacologica Sinica*, 36(5), pp. 644–650. Available at: <https://doi.org/10.1038/aps.2015.7>.

Yow, H.Y. *et al.* (2024) ‘Influence of genetic polymorphisms on pharmacokinetics and treatment response of mycophenolic acid: a scoping review’, *Pharmacogenomics*, 25(5–6), pp. 259–288. Available at: <https://doi.org/10.1080/14622416.2024.2344430>.

Ziegler, A., Steen, K. and Wellek, S. (2010) ‘Investigating Hardy–Weinberg equilibrium



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**The Association of UGT1A9 -2152 (C>T) Gene Polymorphism With Allograft Rejection Among Kidney Transplant Recipients Receiving Mycophenolic Acid In Indonesia: A Case Control Study**

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in case-control or cohort studies or meta-analysis', *Breast cancer research and treatment*, 128, pp. 197–201. Available at: <https://doi.org/10.1007/s10549-010-1295-z>.