

St. Vincent's Department of Haematology continues to foster clinical trials and has an active involvement in translational and laboratory-based research.

About us

The Department of Haematology has a long tradition of academic leadership and research excellence. We are a clinical unit at the forefront of patient-related research, and our specialist staff contribute to national and international peer groups for the organisation and running of clinical trials. Clinical research complements our growing patient referral practice, which extends to suburban and country outreach clinics. We are also commencing investigator-initiated trials of new therapeutics in the area of malignant haematology. We have made progress in establishing a Molecular Pathology laboratory to harness the latest scientific advances and develop new pathology tests that improve diagnostic accuracy of diseases and permit prognostic predictions. The department also has a strong focus on basic science research and our interests include inflammation/thrombosis, identification of new oncogenes and characterisation of intracellular signalling pathways.

Projects in progress or completed

- Anti-platelet and anti-inflammatory effects of a soluble CD39 fusion protein.
- Protective effects of CD39 in ischemia reperfusion injury.
- Novel anti-inflammatory actions of thrombomodulin.
- Clinical trials in myeloma, lymphoma and acute leukaemias: new trials opened: 6; ongoing active trials: 19; trials closed: 6.

The team

Assoc. Prof Harshal Nandurkar, Director; Bridget Ady, Clinical Research Coordinator; Dr Kritika Chaiwatanatorn, Haematologist; Dr Merrole Cole-Sinclair, Haematologist and Head of Laboratory Haematology; Dr Shala Dezfouli, Postdoctoral Fellow; Dr Anne Dykes, Haematologist; Dr Robin Filshie, Haematologist; Prof Frank Firkin, Haematologist; Dr Newton Lee, Haematologist; Anushka Samudra, Postgraduate Student; Carly Selan, Research Assistant; Anup Sharma, Postgraduate Student; Patricia Susanto, Research Assistant; Dr Constatine Si Lun Tam, Haematologist; Helen Worland, Clinical Research Coordinator; Dr Xiang-Ming Zhang, Postdoctoral Fellow

Grants

Campbell, Nandurkar H, MacKinnon Identifications of new oncogenes in acute myeloid leukaemia and myelodysplasias. Leukaemia Foundation, (2008), \$100,000

Dwyer K, d'Apice AJ, Cowan P, Nandurkar H

CD39 protects against renal ischaemia reperfusion injury. NHMRC, (2007-2009), \$391,875

Kile B, Alexander W, Nandurkar H

The genetic control of platelet production and function. NHMRC, (2007-2009), \$537,000

Nandurkar H, Mitchell A

Regulation of myotubularin function by the novel 3-phosphatase adapter molecule 3-PAP. NHMRC, (2006-2008), \$477,750

Nandurkar H, d'Apice AJ, Cowan P

Development of recombinant rsolCD39-PSGL as a novel therapeutic with anti-thrombotic and anti-inflammatory effects. NHMRC, (2008-2009), \$181,250

Nandurkar H, Campbell, MacKinnon

Identifications of new oncogenes in acute myeloid leukaemia and myelodysplasias. Cancer Council of Victoria, (2008-2009), \$63,000

Nandurkar H, Wilson A

CD39 polymorphisms in cardiovascular disease. St. Vincent's Research Endowment Fund, (2008), \$29,000

Nandurkar H, Kelly D

Novel approach to inhibit RAGE and protect from diabetic nephropathy. JDRF-International, (2008), (USD)\$101,000

Nandurkar H, Robson S, d'Apice AJ, Cowan P, Enjoyji K

A novel approach to target inflammation and thrombosis. National Institutes of Health, (2005-2008), (USD)\$800,000

O'Brien S, Tam CS

A pilot study of plasma DNA minimal residual disease assessment in patients receiving chemoimmunotherapy for treatment of chronic lymphocytic leukaemia. CLL Global Research Foundation, (2008), \$100,000

Presentations

Borthakur G, Tam CS, Kantarjian H, Lin E, Cortes J, O'Brien S, Koller C, Pierce S, Keating MJ

– 'Chromosome 17 abnormalities are associated with worse overall and relapse free survival in patients with acute myelogenous leukaemia', American Society of Hematology, Annual Meeting, 2008

Henderson JD, O'Brien S, Wang X, Faderl S, Ferrajoli A, Garcia-Manero G, Tam CS, Burger JA, Abruzzo LV, Schlette E, Lerner S, Keating MJ, Wierda WG

– 'Integrating newer prognostic factors in evaluation of previously treated patients with CLL receiving salvage treatment', American Society of Hematology, Annual Meeting, 2008

Nandurkar H

– Invited Speaker, 'Update on inflammation and thrombosis', National Institute of Health, 2008

Schlette E, Tam CS, Herling M, Bueso-Ramos C, Wierda W, Ferrajoli A, O'Brien S, Keating MJ, Jones D

– 'High T-Cell lymphoma breakpoint 1 (TCL1) levels are associated with lack of response and inferior outcome following fludarabine, cyclophosphamide and rituximab (FCR) frontline therapy in patients with chronic lymphocytic leukemia', American Society of Hematology, Annual Meeting, 2008

Talwalker SS, Tam CS, Keating MJ, Abruzzo LV

– 'Der(17;18)(q10;q10): a new non-random chromosomal abnormality associated with poor prognosis in chronic lymphocytic leukemia / small lymphocytic lymphoma', United States and Canadian Academy of Pathology, Annual Meeting, 2008

Tam CS, Wierda WG, O'Brien S, Lerner S, Khouri IF, Kantarjian HM, Keating MJ

– 'Life after fludarabine, cyclophosphamide and rituximab (FCR) – the clinical outcome of patients with chronic lymphocytic leukemia who receive salvage treatment after frontline FCR', American Society of Hematology, Annual Meeting, 2008

Tam CS, Wierda W, O'Brien S, Lerner S, Abruzzo LV, Ferrajoli A, Kantarjian H, Keating MJ

– 'The clinical significance of chromosome 17p deletion in chronic lymphocytic leukemia: a study of 180 consecutive patients', American Society of Clinical Oncology, Annual Meeting, 2008

Tam CS, Shanafelt TD, Wierda WG, Abruzzo LV, Van DD, Lerner S, Lynn A, Kay NE, Keating MJ

– 'De Novo deletion 17p13.1 chronic lymphocytic leukemia shows significant clinical heterogeneity: the MD Anderson / Mayo Clinic experience', American Society of Hematology, Annual Meeting, 2008

Tam CS, Bassett R, Ledesma C, Korbling MJ, Okoroji GJ, Harrell R, Hsu Y, De Padua Silva L, Alousi AM, Hosing CM, Kebriaei P, Rondon G, Giralt S, De Lima M, Anderlini P, Popat U, Qazilbash MH, Samuels B, Champlin RE, Khouri IF

– 'Rituximab containing autologous stem cell transplantation may be curative in mantle cell lymphoma for patients in first remission, but not for patients with recurrent disease', American Society of Hematology, Annual Meeting, 2008

Wierda WG, O'Brien S, Wang X, Faderl SH, Ferrajoli A, Garcia-Manero G, Cortes J, Tam CS, Burger JA, Abruzzo LV, Schlette E, Lerner S, Keating MJ

– 'Integrating newer with traditional prognostic factors in evaluating patients with CLL receiving frontline chemoimmunotherapy', American Society of Hematology, Annual Meeting, 2008

Publications for 2008

Awais A, Tam CS, Kontoyiannis D, Ferrajoli A, Duvic M, Cortes J, Keating MJ, Awais A, Tam CS, Kontoyiannis D, Ferrajoli A, Duvic M, Cortes J, Keating MJ 2008, 'Rapid resolution of *Mycobacterium marinum* chronic skin infection during lenalidomide therapy for chronic lymphocytic leukemia', *Clinical Infectious Diseases*, 46, 7, e69-71

El Rassi FA, Tam CS, Carwile J, Verstovsek S 2008, 'Thrombosis of the corpora cavernosa complicating lenalidomide therapy of myelofibrosis', *Leukemia Research*, 32, 5, 821-2

Gandhi V, Tam CS, O'Brien S, Jewell RC, Rodriguez CO, Lerner S, Plunkett W, Keating MJ 2008, 'Phase I evaluation of Nelarabine in indolent leukemias: Clinical Response, Pharmacokinetics and Pharmacodynamics in Leukemia Cells', *Journal of Clinical Oncology*, 26, 7, 1098-1105

Moore GT, Brown SJ, Winterhalter AC, Lust M, Salvaris EJ, Selan C, Nandurkar HH, Desmond PV, Cowan PJ, d'Apice AJ 2008, 'Glycosylation changes in hFUT1 transgenic mice increase TCR signalling and apoptosis resulting in thymocyte maturation arrest', *Mol Immunol*, 45, 8, 2401-10

Roussel JC, Moran CJ, Salvaris EJ, Nandurkar HH, d'Apice AJ, Cowan PJ 2008, 'Pig thrombomodulin binds human thrombin but is a poor cofactor for activation of human protein C and TAFI', *Am J Transplant*, 8, 6, 1101-12

Tam CS, Tam CS 2008, 'The rare entity of chronic lymphocytic leukemia in Chinese patients: is it the same disease as in Western patients?' *Leukemia & Lymphoma*, 49, 10, 1841-2

Tam CS, Seymour JF 2008, 'Fludarabine', *Encyclopedia of Cancer*, Springer-Verlag, Berlin, 1137-9

Tam CS, Kantarjian H, Garcia-Manero G, Borthakur G, O'Brien S, Ravandi F, Shan J, Cortes J 2008, 'Failure to achieve a major cytogenetic response by 12 months defines inadequate response in patients receiving nilotinib or dasatinib as second or subsequent line therapy for chronic myeloid leukemia', *Blood*, 112, 3, 516-8

Tam CS, O'Brien S, Wierda W, Kantarjian H, Wen S, Do K, Thomas DA, Cortes J, Lerner S, Keating MJ 2008, 'Long-term results of the fludarabine, cyclophosphamide, and rituximab regimen as initial therapy of chronic lymphocytic leukemia', *Blood*, 112, 4, 975-80

Tam CS, Nussenzveig RM, Popat U, Bueso-Ramos CE, Thomas DA, Cortes JA, Champlin RE, Ciurea SE, Manshour T, Pierce SM, Kantarjian HM, Verstovsek S 2008, 'The natural history and treatment outcome of blast phase BCR-ABL- myeloproliferative neoplasms', *Blood*, 112, 5, 1628-37

Valaydon ZS, Lee P, Dale GL, Januszewski AS, Rowley KG, Nandurkar H, Karschmikus C, Best JD, Lyons TJ, Jenkins AJ 2008, 'Increased coated-platelet levels in chronic haemodialysis patients', *Nephrology (Carlton) In print*.

Polizzotto MN, Neo H, Spelman D, Shortt J, Cole-Sinclair MF, Borosak M, Wong P, Wood EM. 'Streptococcus pneumoniae septicemia associated with red blood cell transfusion', 2008 *Transfusion*. 48(7):1520-1. Case reports letter

Polizzotto MN, Shortt J, Cole-Sinclair MF. 'Acute splenic sequestration complicating sickle cell disease', 2008 *Eur J Haematol* 81(1):81.

Polizzotto MN, Shortt J, Opat SS, Cole-Sinclair MF. 'A drop of vitriol: microspherocytosis following sulphuric acid exposure', 2008 *Br J Haematol* 140(6):596.

Shortt J, Polizzotto MN, Opat SS, Cole-Sinclair MF. 'Oxidative haemolysis due to poppers', 2008 *Br J Haematol* 142(3):328.

Shortt J, Westall GP, Roxby D, Chen JW, Snell GI, Polizzotto MN, Magrin G, Webb A, Street AM, Borosak M, Wood EM, Cole-Sinclair MF. 'A 'dangerous' group O donor: severe hemolysis in all recipients of organs from a donor with multiple red cell alloantibodies', 2008 *Am J Transplant* 8(3):711-4.

Hughes TP, Branford S, White DL, Reynolds J, Koelmeyer R, Seymour JF, Taylor K, Arthur C, Schwarzer A, Morton J, Cooney J, Leahy MF, Rowlings P, Catalano J, Hertzberg M, Filshie R, Mills AK, Fay K, Durrant S, Januszewicz H, Joske D, Underhill C, Dunkley S, Lynch K, Grigg A; Australasian Leukaemia and Lymphoma Group. Impact of early dose intensity on cytogenetic and molecular responses in chronic-phase CML patients receiving 600 mg/day of imatinib as initial therapy', 2008 *Blood*. Nov 15;112(10):3965-73.