



South Eastern Area Laboratory Services (SEALS)

*Department of Clinical Haematology
(The St George Hospital)*

*Department of Haematology
(Prince of Wales Hospital)*

**Blood and Marrow Transplant Unit
Centre for Thrombosis and Vascular Research
Gene Therapy and Bone Marrow Laboratory
Molecular and Cytogenetics Unit**

Department of Microbiology

The Sutherland Centre for Immunology



South Eastern Area Laboratory Services (SEALS)

South Eastern Area Laboratory Services (SEALS), located in three major sites: The Prince of Wales Hospital, The St George Hospital and The Sutherland Hospital, provides a comprehensive clinical laboratory service for SEH. Research and development is regarded as an integral part of this service for its contribution to the knowledge base of disease processes; rapid translation of developments and technology for the improvement in care of the population served by SEH; and to support clinical researchers in other departments and institutions in the Area by providing free or discounted pathology testing where appropriate.

The majority of basic research is funded by peer reviewed, competitive research grants, while the more applied research and development technology is supported by industry or partnerships between industry and Commonwealth research bodies.

A particular strength of SEALS research is the association, through full-time and conjoint academic staff, with the UNSW School of Pathology. From this relationship flows infrastructure funding, laboratory facilities and collaborations with other UNSW Departments.

Department of Clinical Haematology

(The St George Hospital)

During 2000 there was an ongoing study on apoptosis in leukaemia induced by low level of cytotoxics. This clinical project has been adopted by the Australian-wide Leukaemia Study Group, and hopefully the laboratory study can be widened to include samples from other Centres. A number of collaborative clinical trials are in progress, including treatment of a variety of haematological malignancies, and various thrombotic disorders – these are under the auspices of the Clinical Haematology Unit (Cancer Care). Baseline studies are being performed on in-vitro expansion of megakaryocytes.

Published Works

Refereed Journal Articles

Brighton TA, Chesterman CN. The clinical significance of antiphospholipid antibodies in patients without autoimmune disease. *Aust NZ J Med* 2000;30:693-703.

Department of Haematology

(Prince of Wales Hospital)

The Haematology Department undertakes research under the auspices of several distinct research groups. These are the UNSW Centre for Thrombosis and Vascular Research; the Gene Therapy Institute; the Molecular and Cytogenetics Unit and the Bone Marrow Transplant Unit.

The Centre for Thrombosis and Vascular Research has focused on the causation and treatment of the blockage of blood vessels. The redundancy of biological systems results in commonality in mechanisms of disease. Because of this, projects undertaken relate directly to three national and state health priorities: cardiovascular disease, cancer and gene therapy.

The focus of research in the Molecular and Cytogenetics Unit is the genetic basis of human disease and normal variation. The projects currently under way in the Unit fall into two broad groups, molecular cytogenetics in which fluorescent in situ hybridisation to chromosomes is the primary research tool and studies based on genetic linkage analysis.

The Bone Marrow Transplant Unit has focused largely on statistical analysis of outcomes following transplants in a variety of haematological and other malignancies. In addition to collaboration within the Prince of Wales Hospital and UNSW, the Department has contracts with the pharmaceutical industry, both for clinical trials and for drug and diagnostics development programmes.

Research Statement

Blood and Marrow Transplant Unit

Researchers: Rowlings P, Greenstein V.
Title: Establishing a database to determine therapies leading to longer survival and greater quality of life for patients with leukaemia and related diseases.
Funding: Amgen Australia (\$10,000).

Centre for Thrombosis and Vascular Research

Researchers: Chesterman CN, Chong BH, Hogg PJ, Khachigian LM, Owensby DA.
Title: Vascular biology in thrombosis.
Funding: NHMRC Programme Grant (Total 5 years \$3,500,000; 2000 \$813,385).

Researchers: Hogg PJ, Parish CR (ANU), Altin JG (ANU), Chesterman CN.
Title: Tumour angiogenesis.
Funding: NSW Cancer Council Programme Grant (Total 5 years \$1,000,000; 2000 \$200,000).

Researchers: Chesterman CN, Khachigian LM.
Title: Mechanisms of TGF-beta-inducible growth factor gene expression and apoptosis in vascular endothelial cells.
Funding: National Heart Foundation of Australia (Total 2 years \$103,374; 2000 \$51,687).

Researcher: Hogg PJ.
Title: Redox control of CD4.
Funding: Australian Research Council Large Grant (Total 3 years \$182,787; 2000 \$60,929).

Researcher: Khachigian LM.
Title: Early growth response factor-1 as a key transcriptional mediator in vascular disease and diabetes mellitus.
Funding: ARC small grant (\$6,000).

Researchers: Chesterman CN, Chong BH, Hogg PJ, Khachigian LM, Owensby DA, Wang XL, et al.
Title: Infrastructure funding for the Centre for Thrombosis and Vascular Research.
Funding: NSW Health (Total 3 years \$1,935,000; 2000 \$645,000).

Researchers: Chong BH, Ward RL, Chisholm OT.
Title: Generation of recombinant anti-platelet antibodies for treatment of coronary artery disease.
Funding: National Heart Foundation (Total 3 years \$139,450; 2000 \$46,486).

Researcher: Khachigian LM.
Title: Molecular strategies to control vascular cell proliferation.
Funding: ARC (SPIRT) (Total 3 years \$292,220; 2000 \$101,200).

Researchers: Chong BH, Gao R-L.
Title: Drug development from Chinese medicinal herbs for the treatment of blood diseases.
Funding: AusAid-sponsored Australia-China Institutional Link Programme Grant (\$63,322).

Gene Therapy and Bone Marrow Laboratory

Researchers: Hicks C, Lindeman R.
Title: Phase I study of immunotherapy with autologous cells transduced with human IL2 and B7-1 in acute non-lymphoblastic leukaemia in adults unsuitable for combination chemotherapy.
Funding: Private Practice.

Researchers: Poole M, Lindeman R, Roman S.
Title: Angiogenesis in rat flaps following injection of VEGF-b-secreting cells.
Funding: Department of Plastics and Reconstructive Surgery, The St George Hospital and supported by Amrad Australia.

Researchers: Wong R, Lindeman R, Tuch B.
Title: Expression of the human insulin gene in haemopoietic cells following retroviral transduction.
Funding: Rebecca Capo Foundation (\$17,000).

Molecular and Cytogenetics Unit

Researchers: Buckley MF, Taylor PJ, Ryan MM, North KN.
Title: Investigations into the genetic basis of a novel neuromuscular disease.
Funding: NHMRC (Total 3 years \$150,000; 2000 \$50,000).

Researchers: Buckley MF, Cheung C, Lindeman R, Martin ICA, Donald J.

Title: Identification of quantitative trait loci for platelet count in mice and humans.

Researchers: Turner A, Coroneo M, Buckley M.

Title: Identification of genes responsible for X-linked and autosomal dominant retinitis pigmentosa.

Funding: Sydney Children's Hospital Foundation (\$10,000), Australian Retinitis Pigmentosa Association (\$28,000).

Researchers: Mowat D, Mullan G, Buckley MF.

Title: Molecular genetic diagnosis of cryptic subtelomeric chromosomal translocations.

Funding: Sydney Children's Hospital Foundation (\$10,000).

Researchers: Kirk E, MacKenzie F, Buckley MF, Glass I.

Title: Localisation of a gene for autosomal dominant atrial and ventricular septal defects.

Published Works

Chapters in Books

Khachigian LM, Geczy CL. Cytokines and growth factors in atherogenesis. In: Dean R, Kelly D, editors. Review volume on atherosclerosis. Oxford University, 2000.

Lowe HC, Rafty LA, Collins T, Khachigian LM. Platelet-derived growth factors. In: Canalis E, editor. Skeletal growth factors. Philadelphia:Lippincott-Raven, 2000.

Sobocinski KA, Rowlings PA, Zhang MJ, Klein JP, Horowitz MM, et al. International bone marrow transplant registry/autologous blood and marrow transplant registry. In: Atkinson K, editor. Clinical Bone Marrow and Blood Stem Cell Transplantation. A Reference Textbook. Second Edition. Cambridge: Cambridge University Press, 2000.

Refereed Journal Articles

Buckley MF, James JW, Brown DE, Whyte GS, Dean MG, Chesterman CN, et al. A novel approach to the assessment of variations in the human platelet count. *Thromb Haemost* 2000;83:480-484.

Brighton TA, Chesterman CN. The clinical significance of antiphospholipid antibodies in patients without autoimmune disease. *Aust NZ J Med* 2000;30:693-703.

Burgess JK, Gaudry LE, Lopez J, Chong BH. Rifampicin-dependent antibodies bind a similar or identical epitope to glycoprotein IX-specific quinine-dependent antibodies. *Blood* 2000;95:1988-1992.

Burgess JK, Hotchkiss KA, Dudman NPB, Szollosi J, Chesterman CN, Chong BH, et al. Physical proximity and functional association between glycoprotein Ib and protein disulfide isomerase on the platelet plasma membrane. *J Biol Chem* 2000;275:9758-9766.

Champlin RE, Schmitz N, Horowitz MM, Chapuis B, Chopra R, Cornelissen JJ, et al (on behalf of the IBMTR Histocompatibility and Stem Cell Sources Working Committee and the European Group for Blood and Marrow Transplantation). Blood stem cells compared with bone marrow as a source of hematopoietic cells for allogeneic transplantation. *Blood* 2000;95:3702-3709.

Champlin RE, Passweg JR, Zhang MJ, Rowlings PA, Pelz CJ, Atkinson KA, et al. T-cell depletion of bone marrow transplants for leukemia from donors other than HLA-identical siblings: advantage of T-cell antibodies with narrow specificities. *Blood* 2000;95(12):3996-4003.

Chan DKY, Hu G, Tao H, Owens D, Vun CM, Woo J, et al. A comparison of polymorphism in the 3'-untranslated region of the Prothrombin Gene between Chinese and Caucasians in Australia. *Brit J Haematol* 2000;222:1253-1255.

Chong BH, Keng TB. Advances in the diagnosis of ITP. *Sem in Haematol* 2000;37:249-260.

Donoghue N, Yam PTW, Jiang X-M, Hogg PJ. Presence of closely-spaced protein thiols on the surface of mammalian cells. *Protein Science* 2000;9:2436-2445.

Faradz SMH, Pattiha MZ, Leigh DA, Jenkins M, Leggo J, Buckley MF, et al. Genetic diversity at the FMR1 locus in the Indonesian population. *Annals of Human Genetics* 2000;64(4):329-339.

Field SL, Chesterman CN, Hogg PJ. Dependence of prothrombin for inhibition of activated protein C activity by Lupus antibodies. *Thrombosis and Haemostasis* 2000;84:1132-1133.

Gallus A, Baker R, Chong BH, Ockelford P, Street A. A position statement on warfarin therapy. Recommendations from the Australasian Society of Thrombosis and Haemostasis. *MJA* 2000;172:600-604.

Giralt S, Szydlo R, Goldman JM, Veum JS, Biggs JC, Herzig RH, et al. Effect of short-term interferon therapy on the outcome of HLA-identical sibling bone marrow transplantation for chronic myelogenous leukemia: an analysis from the International Bone Marrow Transplant Registry. *Blood* 2000;95:410-415.

Khachigian LM. Catalytic DNA as therapeutic agents and molecular tools to dissect biological function. *J Clin Invest* 2000;106:1189-1195.

Khachigian LM, Takuwa Y, Collins T. Mechanisms of angiotensin II-induced platelet-derived growth factor gene expression. *Molecular and Cellular Biochemistry* 2000;212:183-186.

Larkin L, Khachigian LM, Jessup W. Regulation of apolipoprotein E production in macrophages. *International Journal of Molecular Medicine* 2000;6:253-258.

Lay AJ, Jiang X-M, Kisker O, Flynn E, Underwood A, Condron R, et al. Phosphoglycerate kinase acts in tumor angiogenesis as a disulfide reductase. *Nature* 2000;408:869-873.

Lowe HC, Murray B, Chong BH, Chesterman CN, Khachigian LM. Intracoronary blood sampling using the multifunction probing catheter does not cause platelet activation. *Journal of Invasive Cardiology* 2000;12:144-146.

Malm J, Hellman J, Hogg PJ, Lilja H. Enzymatic action of prostate-specific antigen (PSA or hK3): Substrate specificity and regulation by Zn²⁺, a tight-binding inhibitor. *The Prostate* 2000;45:132-139.

Newman P, Chong BH. Heparin-induced thrombocytopenia: New evidence for the dynamic binding of purified anti-PF4-heparin antibodies to platelets and the resulting activation. *Blood* 2000;96:182-187.

Rafty LA, Khachigian LM. Identification of a novel negative regulatory element in the proximal region of the platelet-derived growth factor B-chain promoter. *J Biol Chem* 2000;275:11478-11483.

The Rembrandt Investigators (Chong BH member). Treatment of proximal deep vein thrombosis with a novel synthetic compound (SR90107A/ORG 31540) with pure anti-factor Xa activity. A Phase II evaluation. *Circulation* 2000;102:2726-2731.

Socié G, Curtis RE, Deeg HJ, Sobocinski KA, Filipovich AH, Travis LB, et al. New malignant diseases after allogeneic marrow transplantation for childhood acute leukemia. *J Clin Oncol* 2000;18:348-357.

Sungaran R, Chisholm OT, Markovic B, Khachigian LM, Chong BH. Platelet alpha-granular proteins regulate thrombopoietin mRNA expression in human bone marrow stromal cells. *Blood* 2000;95:3094-3101.

Taylor LM, Khachigian LM. Induction of platelet-derived growth factor B-chain expression by transforming growth factor-beta involves transactivation by Smads. *J Biol Chem* 2000;275:16709-16716.

Tallman MS, Rowlings PA, Milline G, Zhang MJJ, Perez WS, Weisdorf D, et al. Effect of post-remission chemotherapy prior to HLA-identical sibling transplantation for acute myelogenous leukemia in first complete remission. *Blood* 2000;96:1254-1258.

Xie L, Chesterman CN, Hogg PJ. Reduction of von Willebrand factor by endothelial cells. *Thrombosis and Haemostasis* 2000;84:506-513.

Department of Microbiology

The Department of Microbiology conducts research in three main areas of microbiology and virology namely, antibiotic susceptibility testing, neisseria and virology. The Antibiotic Reference Laboratory is the National Reference Centre for antimicrobial agar disc diffusion testing using the Calibrated Dichotomous Sensitivity (CDS) method. During 2000, two new quinolone antibiotics were calibrated. The calibration of antibiotics for use in Veterinary Medicine was finalised and Veterinarians can now test additional antibiotics using a standardised method. A comprehensive classification of the β -lactamases of *Yersinia enterocolitica* was completed in collaboration with the WHO Collaborating Centre in Paris. The Neisseria Reference Laboratory continued analysis of trends in gonococcal and meningococcal disease and of antibiotic susceptibility in NSW and the WHO Western Pacific and South East Asian regions. Additional studies were performed in collaboration with clinical and laboratory colleagues within SEH, interstate and overseas. Studies in the Virology Research Laboratory have continued in the areas of herpes viruses (particularly cytomegalovirus), hepatitis viruses (particularly hepatitis C virus), endogenous retroviruses (in xenotransplantation and breast cancer), integrons and gastrointestinal viruses. New techniques developed during 2000 allow simpler mapping of repetitive genetic loci and detection of mixed viral infection where this was previously not possible.

Research Statement

Researchers: Deng Y-M, Tuch B, Kumar G, Rawlinson W.
Title: Viruses of risk in xenotransplantation.
Funding: Juvenile Diabetes Foundation International (Total 2 years \$100,000; 2000 \$50,000).

Researchers: Ford C, Trincado D, Rawlinson W.
Title: In situ PCR viral studies.
Funding: Rebecca L Cooper Foundation (\$15,000).

Researchers: Isaacs M, Rawlinson W.
Title: UL97 Genotyping of Cytomegalovirus (CMV) isolates.

Researchers: McIver C, White P, Ferson M, Rawlinson W.
Title: Agents of Gastroenteritis - Norwalk Virus.

Researchers: Rawlinson W, Ford C, Tranh D, Lawson J.
Title: Human homologue of mouse mammary tumour virus in the aetiology of breast cancer.
Funding: Cancer Council (Total 3 years \$220,000; 2000 \$73,333), Australian Postgraduate Award Scholarship to Caroline Ford (Total 3 years \$54,000; 2000 \$18,000).

Researchers: Scott G, Rawlinson W.
Title: Generation of murine cytomegalovirus (MCMV) antiviral resistant mutants.

Researchers: Scott G, Rawlinson W.
Title: Molecular biology of HCMV and MCMV.
Funding: NHMRC Project Grant (Total 3 years \$138,000; 2000 \$46,000), NHMRC Dora Lush Scholarship (Total 3 years \$56,000; 2000 \$18,667).

Researchers: Trincado D, Rawlinson W.
Title: Study of congenital infection with human cytomegalovirus (HCMV) and transplacental transmission.
Funding: Sydney Children's Hospital Foundation (\$20,000), NHMRC Dora Lush Scholarship to Daniel Trincado (Total 3 years \$56,000; 2000 \$18,667).

Researchers: White P, Clancy L, Rawlinson W.
Title: Molecular biology of human hepatitis C virus.
Funding: NHMRC (Total 3 years \$130,000), Australian Postgraduate Award Scholarship to Leighton Clancy (Total 3 years \$54,000; 2000 \$18,000).

Researchers: White P, McIver C, Jones L, Rawlinson W.
Title: Integrons.

Published Works

Refereed Journal Articles

Australian gonococcal surveillance programme. Annual report of the Australian gonococcal surveillance programme 1999. *Commun Dis Intell* 2000;24:113-117.

Australian meningococcal surveillance programme. Annual report of the Australian meningococcal surveillance programme 1999. *Commun Dis Intell* 2000;24:181-189.

Bell SM, Gatus BJ, Pham JN. The Calibrated Dichotomous Sensitivity test. *Microbiology Australia* 2000;21(1):23-24.

Deng Y-M, Lee JH, Moran C, Jin J-H, Tuch BE, Rawlinson WD. Mapping dispersed repetitive loci using semi-specific PCR cloning and somatic cell hybrid mapping. *Nucleic Acids Research* 2000;28(23):e103.

Deng Y-M, Tuch BE, Rawlinson WD. Transmission of porcine endogenous retroviruses in severe combined immunodeficient mice xenotransplanted with fetal porcine pancreatic cells. *Transplantation* 2000;70:1010-1016.

Donovan B, Bodsworth NJ, Rohrsheim R, McNulty A, Tapsall JW. Increasing gonorrhoea reports – not only in London. *Lancet* 2000;335:1908.

Ferson MJ, Ressler K-A, McIver CJ, Isaacs M, Rawlinson WD. Norwalk-like virus as a cause of a gastroenteritis outbreak in a childcare centre. *Aust NZ J Public Health* 2000;24(3):342-343.

Freeman AJ, Zekry A, Whybin LR, Harvey CE, van Beek IA, de Kantzow SL, et al. Hepatitis C prevalence among Australian injecting drug users in the 1970s and profiles of virus genotypes in the 1970s and 1990s. *MJA* 2000;172:588-591.

Gosbell I, Turnidge JD, Tapsall JW, Benn RAV. Toxicities of flucloxacillin and dicloxacillin – is there really a difference? *MJA* 2000;173:500.

McIver CJ, Palombo EA, Doultree JC, Mustafa H, Marshall JA, Rawlinson WD. Detection of astrovirus gastroenteritis in children. *J Virological Methods* 2000;84:99-105.

Morlet N, Graham GG, Gatus B, McLachlan AJ, Salonikas C, Naidoo D, et al. Pharmacokinetics of ciprofloxacin in the human eye: A clinical study and population pharmacokinetic analysis. *Antimicrob Agents Chemother* 2000;44(6):1674-1679.

Pham JN, Bell SM, Martin L, Carniel E. The b-lactamases and b-lactam antibiotic susceptibility of *Yersinia enterocolitica*. *J Antimicrobial Chemotherapy* 2000;46:951-957.

Scott GM, Ratnamohan VM, Rawlinson WD. Improving permissive infection of human cytomegalovirus in cell culture. *Archives of Virology* 2000;145:2431-2438.

Shultz TR, Tapsall JW, White PA, Newton PJ. An invasive isolate of *Neisseria meningitidis* showing decreased susceptibility to quinolones. *Antimicrob Agents Chemother* 2000;44:1116.

Tapsall JW. The biology of *Neisseria gonorrhoea*: a model of adaptation and survival. *Venereology* 2000;13:63-69.

The National *Neisseria* Network 1979-2000. *Communicable Diseases Intelligence* 2000;24:190-193.

The WHO Western Pacific Region Gonococcal antimicrobial surveillance programme. Surveillance of antibiotic resistance in *Neisseria gonorrhoea* in the WHO Western Pacific Region, 1998 and 1999. *Communicable Diseases Intelligence* 2000;24:1-4 and 268-270.

Trincado D, Scott GM, White PA, Hunt C, Rasmussen L, Rawlinson WD. Human cytomegalovirus (HCMV) strains associated with congenital and perinatal infections. *J Med Virol* 2000;61:481-487.

Tuch B, Rawlinson W. Xenotransplantation in diabetes. *Today's Life Science* 2000;12(6):30-33.

Tuch BE, Rawlinson WD, Collignon P. Xenotransplantation into humans. *Aust NZ J Med* 2000;30(2):264-266.

White PA, Li Z, Zhai X, Marinos G, Rawlinson WD. Mixed viral infection identified using heteroduplex mobility analysis (HMA). *Virology* 2000;271:382-389.

White PA, McIver C, Deng Y-M, Rawlinson WD. Characterisation of two new gene cassettes, *aadA5* and *dfr A17*. *FEMS Microbiology Letters* 2000;82(2):265-269.

White PA, Zhai X, Carter I, Zhao Y, Rawlinson WD. Simplified hepatitis C virus genotyping by heteroduplex mobility analysis. *J Clin Microbiol* 2000;38:477-482.

The Sutherland Centre of Immunology

The Sutherland Centre of Immunology (SCI) provides a comprehensive service in diagnostic immunology and protein chemistry for SEH and acts as a reference laboratory for various specialised immunology tests, particularly complement chemistry. The Centre has three specialty Immunology laboratories with established research and development programmes and is closely linked with the School of Pathology, UNSW. Members have continued to be successful in attracting external peer reviewed research grant funding.

The overall aim of research at SCI is to foster the interdisciplinary study of inflammation.

Research Statement

Researchers: Beck R, Wakefield D, Lloyd A.

Title: Gene therapy for eye disease.

Funding: NHMRC project grant.

Researchers: Berry D, Balcar VJ, Barden J, Bennett MR, Keogh A, Dos Remedios CG.

Title: P2X class of receptors.

Researchers: Berry D, Yao M, Barden J, Balcar VJ, Hansen MA, Bennett MR, et al.

Title: Dystrophin and Dystrophin associated proteins.

Researchers: Flaskas A, Berry DA, Theodorakopoulos A, Saba J, Marshall J.

Title: Comparison of two solutions of carrier ampholytes for the separation of oligoclonal bands in cerebrospinal fluids by isoelectric focussing.

Researchers: Lloyd A, Wakefield D, Hickie I.

Title: Post infective fatigue - the Dubbo study.

Funding: NHMRC project grant.

Researchers: Tedla N, Palladinetti P, Lloyd A, Wakefield D.

Title: Expression of p2x class receptors in dilated cardiomyopathy.

Researchers: Wakefield D, Coroneo M, Di Girolamo N.

Title: The pathogenesis of pterygia.

Funding: NHMRC project grant.

Researchers: Wakefield D, McCluskey P, Cuello C, Di Girolamo N.

Title: Inflammatory eye diseases.

Funding: NHMRC – two project grants.

Researchers: Wakefield D, Cuello C, Kabir N.

Title: Sjogren's syndrome pathogenesis

Funding: Commonwealth research scholarship.

Published Works

Chapters in Books

Wakefield D, Kumar RK. Inflammation: chronic. Article 944. In: <http://www.els.net/author>. Encyclopaedia of Life Sciences. London: Macmillan, 2000.

Refereed Journal Articles

Di Girolamo N, McCluskey P, Lloyd A, Coroneo MT, Wakefield D. Expression of MMPs and TIMPs in human pterygia and cultured pterygium epithelial cells. *Inv Opth Vis Sci* 2000;671-679.

Di Girolamo N, Wakefield D. In vitro and in vivo Expression of interstitial collagenase/MMP-1 by human mast cells. *Dev Immunol* 2000;7:131-142.

Wakefield D, Jennings A, McCluskey PJ. Intravenous pulse methylprednisolone in the treatment of uveitis associated with multiple sclerosis. *Clin Exp Ophthalmol* 2000;28:103-106.

Saw VPJ, Canty PA, Green CM, Briggs RJ, Cremer PD, Harrisberg B, et al. Susac syndrome: microangiopathy of the retina, cochlea and brain. *Clin Exp Ophthalmol* 2000;28:373-381.

Hickie IB, Wilson AJ, Wright JM, Bennett BK, Wakefield D, Lloyd AR. A randomised, double-blind, placebo-controlled trial of moclobemide in patients with chronic fatigue syndrome. *J Clin Psychiatry* 2000;61:643-648.

Berry DA, Balcar VJ, Barden JA, Keogh A, dos Remedios CG. Determination of P2X1 and alpha-sarcoglycan (adhelin) expression levels in failing human dilated cardiomyopathic left ventricles. *Electrophoresis* 2000;21:3857-3862.

