

Rheumatology has an active research program that emphasises translating clinical and basic science into new and effective treatments for arthritis and bone diseases.

About us

The department caters for hundreds of outpatients and inpatients with rheumatic diseases. Research in both clinical and basic arenas is well developed.

In collaboration with a satellite research team at St Vincent's Institute the department (Assoc Prof E. Romas) investigates pre-clinical arthritis models using genetically modified mice to pursue novel treatment targets in both rheumatoid arthritis and osteoarthritis.

Mary Sullivan, research nurse, manages clinical trials (Assoc Prof L Clemens). This year saw the launch of the National Scleroderma Database, a unique national collaboration involving 13 centres engaged in treatment of a rare but complex disease and is supervised by Dr Wendy Stevens with Jill Byron, national project officer based at St. Vincent's.

The group also continues its research collaboration with cardiology

in early detection of pulmonary hypertension. A nurse provides care for the scleroderma clinic. Dr Keith Lim, with strong international osteoarthritis collaborations (St. Vincent's is one of 12 worldwide centres participating in the OMERACT-OARSI study), is also involved in the management of the triage of osteoarthritis patients with orthopaedics (Prof Choong).

The main areas of research in the department are:

- bone loss in inflammatory arthritis
- basic and clinical aspects of osteoarthritis
- scleroderma and pulmonary hypertension
- clinical management of osteoarthritis and the natural history of disease
- cardiovascular complications of rheumatic diseases
- innovative biological therapies for rheumatoid arthritis.

Projects in progress or completed

Investigator-initiated:

- Targeting subchondral bone remodelling to prevent osteoarthritis progression. (Assoc Prof Evange Romas).
- The role of Wnt signalling in osteoarthritis (Assoc Prof Evange Romas).
- Involvement of novel gp130 signalling cytokines in inflammatory arthritis (Assoc Prof Evange Romas).
- Early detection and management of pulmonary hypertension in scleroderma (Dr Wendy Stevens).

- Measuring the clinical outcomes of patients with hip and knee OA Lim K, Sullivan M, Page C, Lim J, Sayag Boukris V, Maciel J, Wong M, Dowsey, Healy M, Clemens L, Choong P. HREC-A120/07, (2007-2011).
- The effects of Infliximab on cardiovascular parameters in rheumatoid arthritis (Dr. Melinda Wong).

Pharmaceutical trials:

- A phase IIB, multi-dose, multi-centre, randomised, double-blind, placebo-controlled study to evaluate the efficacy and safety of abatacept versus placebo in the treatment of psoriatic arthritis. Protocol No: IM101-158, (2008 Continuing)
- A multi-centre, randomised, double-blind, placebo-controlled trial of Golimumab, a fully human anti-TNF monoclonal antibody, administered intravenously, in subjects with active rheumatoid arthritis despite methotrexate therapy. Protocol Number: C0524T12, (2008 Continuing)
- Multinational open label study to evaluate the study, tolerability and efficacy of Tocilizumab in patients with active rheumatoid arthritis on background non-biologic DMARDs who have an inadequate response to current non biologic DMARD and/or anti-TNF Therapy. Protocol No: CP#MA21573, (2008 Continuing)
- The efficacy and safety of two doses of strontium ranelate (1g and 2g per day) versus placebo administered orally for two to three years in the treatment of knee osteoarthritis. Protocol No: CL312911-018, (2006 Continuing)

Research applications in the clinical setting

Patients with severe rheumatoid arthritis with insufficient criteria for PBS-subsidised medications are able to access high cost technologies via the department's involvement in biological DMARD trials. Those who are referred to St. Vincent's Clinics with hip or knee symptoms are triaged to be managed efficiently. Complex diseases such as pulmonary hypertension in scleroderma are managed using a clinical algorithm with earlier right heart catheterisation and pulmonary function analysis enabling timely intervention with endothelin antagonists in carefully selected patients with connective tissue diseases and assessment of clinical outcomes with the aid of a patient registry.

The team

Assoc Prof Laurie Clemens, Director; Jill Byron, ASIG National Research Co-ordinator; Dr Tim Godfrey; Dr Frank Laska; Dr Keith Lim, Helen Rogers, Scleroderma Nurse; Assoc Prof Evange Romas, Deputy Director; Dr Wendy Stevens; Mary Sullivan, Clinical Trials Coordinator; Dr Melinda Wong, Dr Veronique Boukris

Grants

Lim K, Sullivan M, Page C, Clemens LE, Choong PF, Wong M, Sayag Boukris V, Lim J

OWL Project. Department of Human Services, (2007-2009), \$300,000

Lim K, Clemens LE, Choong PF

OMERACT-OARSI collaborative on indications for joint replacement surgery and measurement of outcomes. OMERACT, (2008-2009), (Euro)8,000

Department of Rheumatology

Research Nurse and Scleroderma Screening Project funding support (2008) from Actelion \$60,000, CSL \$20,000, Bayer \$5,000 and Scleroderma Victoria \$10,000

Presentations

Mageswaren E, Clemens LE, Choong PFM, Lim KKT

- Oral presentation, 'Reducing the burden of patients waiting for orthopaedic appointments with hip and knee OA', EULAR, Paris, 2008

Romas E

- Invited speaker, Fourth International Conference – bone involvement in arthritis, Portofino, Italy, 2008

Stevens W

- Invited speaker, 'The Australian Scleroderma Screening Program', Australian Rheumatology Association Annual Scientific Meeting Satellite Conference, 2008

Collaborations

- Maxime Dougados, France
- Stefan Lohmander, Sweden
- Gillian Hawker, Canada

Publications

E M, Chow K, Sullivan M, Savage A, Fraser S, Page C, Clemens LE, Choong PFM, Lim K 2008, 'The St. Vincent's OA service: better management of the waiting patient', *Internal Med Journal*, 38, s2, A1-A36

Jellis C, Layland J, Stevens W, Prior D 2008, 'Accuracy of non-invasive assessment of pulmonary vascular resistance and pulmonary artery systolic pressure in suspected pulmonary hypertension', *Heart, Lung and Circulation*, 17, S41-S41

Jellis C, Layland J, Stevens W, Prior D 2008, 'Early effects of Bosentan on pulmonary arterial hypertension in a real world setting. Scientific Posters', *Heart, Lung and Circulation*, 17, S146-S146

Lam SKL, Ngian GS, Travers R, Lim KKT 2008, 'Amyloidosis: a rheumatological perspective on diagnosis, further investigation and treatment', *Int Journal Rheum Diseases*, 11, 1, 55-60

Mageswaren E, Byron J, Proudman S, Gabbay E, Phung S, Roddy J, Youssef P, Nash P, Sahhar J, Celermajer D, Tymms K, Zochling J, Sturgess A, Kermeen F, Hill C, Stevens W 2008, 'Systemic Sclerosis in Australia: using the Australian Scleroderma Screening Program (ASSP) database to assist in assessment of cardiopulmonary complications. Scientific Posters', *Internal Medicine Journal*, 38, A10-A32

Micallef M, Lim K, TRAVERS R 2008, 'Stopping the rot: the stories behind methotrexate, sulphasalazine and hydroxychloroquine', *International Journal of Rheumatic Diseases*, 11, 1, 61-65

Romas E 2008, 'Clinical applications of RANK-ligand inhibition', *Internal Medicine Journal VI 9999*

Romas E 2008, 'Corticosteroid-induced osteoporosis and fractures', *Australian Prescriber*, 31, 45-49

Romas E 2008, 'RANK-ligand inhibition for prevention of inflammatory joint damage', *Rheumatologia Clinica*, 2, 3, 13-15

Thumboo J, Penserga E, Lim K 2008, 'Encouraging epidemiological and outcomes research in Asia', *Int J Rheum Dis*, 12, 2