

Information for Candidates

Professor and Director of Cardiac
Medicine

Program Director Monash Heart &
Director Victorian Heart Hospital



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MESSAGE FROM MONASH HEALTH CEO AND MONASH UNIVERSITY VICE CHANCELLOR

We are excited to have the opportunity to offer what we believe will be a fantastic role to an outstanding candidate.

Monash Health already has a national and international reputation for innovation and excellence in care delivery. Over the next five years this will go to another level with the building and commissioning of the dedicated cardiac facility: The Victorian Heart Hospital.

Monash University has an outstanding reputation in research and teaching in cardiac health. The establishment of a School of Cardiac Medicine will enable a progression into a top tier academic research and teaching institution in cardiac medicine.

The integration of an outstanding clinical leadership role, including the opening and commissioning of a dedicated heart hospital, plus an extraordinary opportunity to develop an academic centre of excellence in cardiac medicine; we believe is a unique opportunity internationally.

Add to this that the role is situated in the most livable city in the world, we believe this opportunity will attract tremendous interest from international candidates.

PROFILE - MONASH HEALTH

Our Vision

Exceptional care, outstanding outcomes

Our Values

At Monash Health, we work together with:

- Integrity (we act fairly, honestly and openly)
- Compassion (we interact with dignity and empathy)
- Accountability (we take ownership and responsibility for performance)
- Respect (we value difference and individual worth)
- Excellence (we aim for and recognise innovation, quality and professionalism)

We remain strongly committed to our iCARE values, which will continue to underpin our culture as we translate our vision into reality.

Our Purpose

To deliver quality, patient-centred health care and services that meets the needs of our diverse community.

Our Strategic Priorities

Our strategic priorities for July 2013 to June 2018 are:

- We put our patients first
- We drive innovation
- We partner strategically for outstanding outcomes
- We lead sustainable healthcare

We know we will have achieved our vision when...

We put our patients first

- We consistently deliver high quality, best practice care
- Our patients' care exceeds their expectations
- Our patients state that they are partners in their care
- Our diverse community reports that we are meeting their needs

We drive innovation

- We transform systems to deliver outstanding care
- Innovations in research are translated into exceptional care
- We are a flexible organisation that anticipates and drives change
- We support innovative thinking and ideas that enable the achievement of our vision

We partner strategically for outstanding outcomes

- Our partnerships deliver mutual benefits
- Our diverse community tells us that their health care journeys are seamless
- Collectively, we are leaders in translational research
- Our staff report that we have exceptional interprofessional teaching and clinical training
- Together with the traditional owners of the land we close the health gap

We lead sustainable healthcare

- Our systems and processes are simple and effective
- We focus on the delivery of high quality services while balancing competing demands
- We use data and evidence to inform and improve our services
- We apply our healthcare resources to what we do best
- We work with our people to ensure we have the capabilities for the future
- We are superior performers against our Statement of Priorities
- We continue to enhance our communication

MONASH HEALTH – FAST FACTS



Monash Health is Victoria's leading integrated health service serving the south eastern suburbs of Melbourne, Victoria, Australia

- We integrate uniquely in one organisation primary, secondary and tertiary health services, as well as university affiliated international research and teaching facilities
- We offer our community quality patient health care across the entire lifespan from pre-birth to palliative care, for all groups and stages of life
- Extensive range of programs and disciplines are provided from prevention to early intervention and primary care; through to highly complex acute, aged residential and mental health services
- We play wider specialist referral roles for many specialities serving greater Melbourne, Victoria and interstate
- We are a member of the Monash Health Translation Precinct with Monash University and the Hudson Institute of Medical Research. We are also in partnership with other leading educational institutions such as Deakin and La Trobe Universities
- We are recognised by the World Health Organisation as a registered health promotion body
- Our core community of more than one million people depends on us for all aspects of its public healthcare, with our services available to 1.392 million people.
- More than 16,000 staff work at more than 40 sites, admitting more than 251,000 hospital patients, handling more than 218,000 emergency presentations and delivering nearly 10,000 babies.

OUR ORGANISATION in 2015-16

Our staff

More than 16,000 employees

Our investment

\$1.55 billion spent delivering our health services

Our research

More than 800 research projects involving patients, either in clinical drug or device trials

Our sites

More than 40 sites with more than 2170 acute, sub-acute, mental health and aged care beds, including:

- **Six public hospitals**
 - Monash Medical Centre (640 beds)
 - Moorabbin Hospital (147 beds)
 - Dandenong Hospital (573 beds)
 - Casey Hospital (273 beds)
 - Kingston Centre (183 beds)
 - Cranbourne Centre (same-day acute and sub-acute)
- **One private hospital**
 - Jessie McPherson Private Hospital (106 beds)
- **21 community health sites**
- **Hospital in The Home (118 bed virtual acute ward)**
- **Five aged care facilities (294 beds)**
 - Chestnut Gardens, Yarraman, Mooraleigh, Eastwood, Allambee
- **Eight mental health facilities**
 - Inpatient, residential, community care and drug and alcohol units.

OUR CARE in 2015-16

Total episodes of care

3.47 million episodes of care provided across our services to the community

Hospital admissions

251,372 people admitted to our hospitals

Emergency

218,272 people came to our three emergency departments for treatment

Ambulance arrivals

53,026 ambulance arrivals handled by our emergency departments

Surgical operations

47,436 elective and emergency operations performed

Outpatient services

1.4 million people received care as outpatients at 375 clinics

Births

9,896 babies delivered (including births at Jessie McPherson Private Hospital)

Children

39,628 children under age 19 were admitted to our Monash Children's Hospital wards and neonatal units

Mental health

249,415 client contacts

Community health

99,190 hours of direct primary care and Home and Community Care services provided in our community.



OUR COMMUNITY

Our core community

Our core community of six local government areas comprises more than one million residents, or 17 per cent of Victoria's population, who depend on us for their public healthcare. This covers an area of 2,032 km² including:

- o City of Monash
- o City of Greater Dandenong
- o City of Casey
- o Cardinia Shire
- o City of Kingston
- o City of Glen Eira

Our greater community

- Our health service provides access to public health services for a greater community of 1.392 million residents or 24 per cent of Victoria's population.
- This comprises up to nine local government areas across 2,312 km², including our core community as well as parts of:
 - o City of Bayside
 - o City of Frankston
 - o Knox City

This greater community grew by 21,265 residents in the financial year 2013-14, an average increase of 408 residents a week.

SERVICE PROFILE

Monash Health provides our community with access to integrated community and hospital based services across the entire lifespan focusing on improving their health through:

- Prevention and early intervention
- Hospital and community-based treatment and rehabilitation
- Highly specialised surgical and medical diagnosis, treatment and monitoring services
- Hospital and community based mental health services
- Comprehensive aged care programs
- Aged residential services
- Palliative care

Monash Medical Centre

Monash Medical Centre is a 640 bed teaching and research hospital of international standing providing a comprehensive range of specialist surgical, medical, allied health and mental health services to our community. It is designated a national provider of renal and pancreatic transplants, and statewide provider of Thalassemia and children's cancer services. It is also the base for MonashHEART, a centre of excellence in cardiac assessment, treatment and research; and Monash Children's, the third largest provider of paediatric services in Australia. Offering integrated maternity and newborn services on the one site, Monash Medical Centre provides one of Victoria's largest women's health services. It is also renowned for men's health services. McCulloch House located onsite is a 16 bed facility providing palliative care for people within our catchment area with advanced progressive disease.



Moorabbin Hospital



Moorabbin Hospital is the home of the Monash Cancer Centre and one of Victoria's leading cancer treatment centres, providing a range of clinical oncology services. The hospital hosts the Southern Melbourne Integrated Cancer Service and offers radiotherapy in partnership with the Peter MacCallum Cancer Centre. It is also a centre for research, being in particular a major contributor to cancer-related research. The 147 bed hospital also offers elective surgery, short-stay care and dialysis. Home to Victoria's first Patient Simulation Centre, the hospital plays a major role in the education and training of undergraduate and postgraduate medical students, nurses and allied health professionals.

Dandenong Hospital

Dandenong Hospital is a 573 bed acute hospital providing a wide range of health services to the people living and working in Dandenong and surrounding areas. Services include general medical and surgical care including orthopaedic services, an intensive care unit, emergency department, rehabilitation and aged services, pathology, radiology, day oncology, maternity unit, special care nursery, Monash Children's services, mental health services and allied health services. The hospital is also central to our role as a State leader in addressing refugee health needs.



Casey Hospital



Casey Hospital is a 273 bed hospital serving one of the fastest growing areas in Melbourne's outer east. Services include an emergency department, general medical, mental health, rehabilitation, surgical and ambulatory care services, maternity and a special care nursery. The hospital is a provider of paediatric services for Monash Children's.

Cranbourne Integrated Care Centre

Cranbourne Integrated Care Centre provides a range of same-day acute and sub-acute services including surgery, renal dialysis, specialist consulting services, regional ophthalmology services and mental health services. It also provides the local community with access to community health services And a community rehabilitation centre.

Kingston Centre

Kingston Centre is a 183 bed facility specialising in high quality rehabilitation, function restoration, aged care and aged mental health. Its highly regarded rehabilitation program focuses on restoring function after illness or injury with the full range of allied health services provided to adults of all ages. The centre provides specialist services for older people including Aged Care Assessment, cognitive dementia and memory services. It also offers a Falls and Balance Clinic, Pain Clinic, Clinical Gait. Analysis, and continence service. It is at the forefront of research into movement and gait disorders, aged mental health and geriatric medicine and has a leading role in providing care for sufferers of Parkinson's disease.

Monash Health Community

Monash Health Community is an amalgamation of services and funding streams that provide support throughout the client's journey. Monash Health Community proactively supports our community in order to improve and maintain health, independence and wellbeing by coordinating and/or providing integrated, multidisciplinary care across multiple settings within the local community. Our aim is to empower and prepare clients to self-manage their health and health care.

Working with clients across the age spectrum, Monash Health Community provides a continuum of care, supporting clients through all stages of non-acute care from prevention through to rehabilitation. We provide services which support clients in their homes; community based facilities and dedicated Monash Health Community hubs. These services are offered face to face and in group settings and include clinical (e.g.: nursing, dental, medicine, physiotherapy, occupational and other therapies) and non-clinical (eg: counselling, community development, social work, case management) services. Monash Health Community has locations across five local government areas from Kingston to Cardinia.



Mental Health

Mental health services are our hospital and community based facilities providing a comprehensive range of services for children and adults experiencing mental health issues. Our vision is to be a dynamic mental health service that inspires confidence in our patients and their families and supports staff to provide consistent and contemporary care. Working with clients across the age spectrum, the mental health program provides a range of services including alcohol and drug; telephone psychiatric triage; crisis assessment and treatment; consultation liaison psychiatry; primary mental health; mobile support and treatment; acute inpatient care; extended inpatient care; perinatal and infant care; eating disorders care; prevention and recovery care; community residential and rehabilitation services; agile psychological medicine outpatient assessments; and Police, Ambulance and Clinical Early Response (PACER) response.

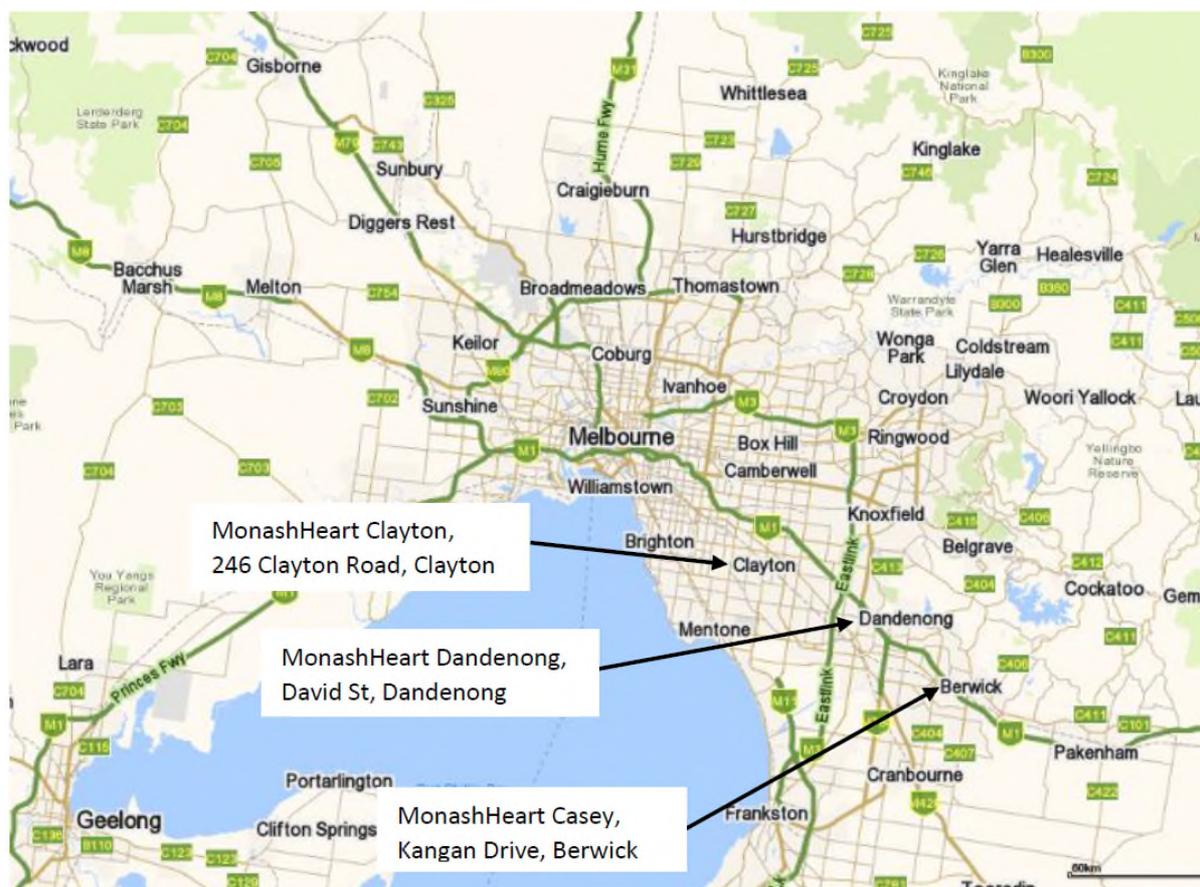
Aged Residential Care

Aged residential care is provided at Allambee Nursing Home and AG Eastwood Hostel at the Kingston Centre (Cheltenham); Chestnut Gardens Aged Care (Doveton); Yarraman Nursing Home (Noble Park) and Mooraleigh Hostel (East Bentleigh), providing 294 aged and aged mental health residential beds.

PROFILE - MONASHHEART

MonashHeart is the largest cardiology service in Victoria, Australia, providing cardiovascular care across the Monash Health primary and secondary catchment, including the south-east of metropolitan Melbourne and the regional and rural areas of south-east Gippsland. For some highly specialised tertiary and quaternary cardiac services, care is provided to interstate and international patients.

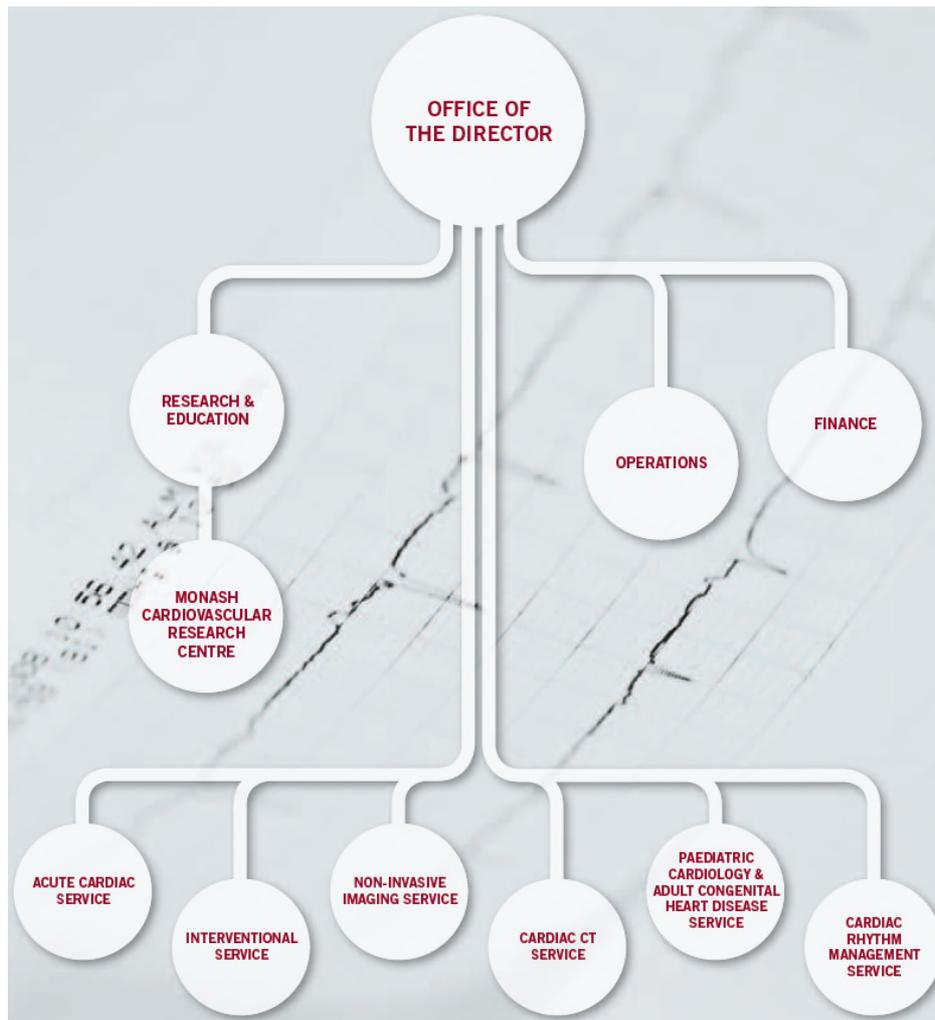
MonashHeart services are provided from Monash Health's three acute hospitals that have an emergency department; Monash Medical Centre Clayton, Dandenong Hospital, Dandenong and Casey Hospital, Berwick. In 2016 across the three sites, MonashHeart provided over 86,000 instances of cardiological care to patients of all ages; from newborns through to older members of the community. The 'cradle to grave' service provided by Monash Health is unique in Victoria.



MonashHeart is proud to provide services as one multidisciplinary team of medical, nursing, cardiac technologist, allied health, reception, clerical and administration staff, all working towards a unified vision for providing the very best in cardiovascular care for our community.

MonashHeart's services are divided into seven sub-specialities, each led by a service head or director:

1. Acute cardiac services;
2. Cardiac CT services;
3. Cardiac rhythm management services;
4. Cardiac interventional services;
5. Non-invasive cardiac imaging services;
6. Paediatric cardiology and congenital heart disease services; and
7. Monash Cardiovascular Research Centre.



MonashHeart has been a first mover in many clinical areas and has led a number of world, Australian and Victorian firsts including:

- World 1st
 - Electrophysiology study using the gold-tipped A1 Cath Force catheter (2016)
 - Implantation of MRI compatible heart failure biventricular pacemaker with a quadripolar LV pacing lead - the Edora (2016)
 - Combined endovascular aneurysm repair and transcatheter aortic valve replacement procedure (2015)
 - Paediatric renal denervation procedure (2012)
 - Sadra Lotus TAVR program (2012)
- Australian 1st
 - Transeptal endocardial LV lead for CRT-D implant (2016)
 - 300th TAVR procedure performed (2016)
 - Subcutaneous implantable cardioverter defibrillator implantation (2014)
 - Laser balloon procedure for atrial fibrillation (2012)
 - Left atrial appendage occlude - Watchman procedure (2010)
 - 320-slice cardiac CT service commencement (2008)
 - Device closure of atrial septal defects in adults (1999)
 - Balloon mitral valvuloplasty procedure (1988)
- Victorian 1st
 - Advanced lipid disorder program (2017)
 - Implantation of the new generation subcutaneous implantable cardioverter defibrillator (2016)
 - Resistant hypertension clinic (2016)
 - Implantation of cardiac contractility modulation device (2015)

- Appointment of a point-of-care echocardiography educator in a public hospital (2015)
- Establishment of the early intervention systolic heart failure program – nurse run, cardiologist led (2015)
- Commencement of a paediatric murmur clinic (2012)
- Commencement of a rapid assessment chest pain clinic (2011)
- Instigator and pilot for the MonAMI/Ambulance Victoria Program which was subsequently implemented across Victoria (2009)
- STEMI angioplasty service (1994).

Cardiothoracic Surgery



MonashHeart and Monash Health’s cardiac surgeons work collegially in the “Heart Team” model. Monash Health’s cardiac services include the Department of Cardiothoracic Surgery, incorporating cardiac and thoracic surgery performed by seven cardiothoracic surgeons and led by Professor Julian Smith. The cardiac surgery team work closely with the MonashHeart team in a close working relationship, performing hybrid procedures together in the cardiac catheterisation laboratories, meeting weekly to discuss challenging cases, sharing training and education programs, with all research produced collaboratively under the auspices of the Monash Cardiovascular Research Centre.

In 2016, 505 cardiac surgical operations were performed through the centralised service at Monash Medical Centre, supported by the intensive care unit and two post-operative cardiothoracic units – the public inpatient unit and private inpatient unit. The Monash Health cardiothoracic service is the third largest unit by volume of six specialist Victorian public cardiac surgery units, which include Austin Health (Austin Hospital), Barwon Health (Geelong Hospital), St Vincent’s Hospital, Alfred Health (Alfred Hospital) and Melbourne Health (Royal Melbourne Hospital).

In 2013-14 Monash Health provided 65 per cent of cardiothoracic surgical services to its catchment, with 35 per cent of catchment patients treated elsewhere. One of the goals of establishing the Victorian Heart Hospital is to increase this ‘self-sufficiency’ for cardiac surgery for its catchment to at least 80 per cent through improved access to timely services and with greater infrastructure capacity, improved patient experience and formalised service level agreements with regional and rural providers for cardiac surgery care.

MonashHeart Services



The following provides an overview of the MonashHeart key clinical services, each with a strong specific clinical focus and responsibility for evidence-based practice, service improvement, optimisation of patient experience, high quality clinical research, and the very best professional training and education.

Important to note is that inpatient services are provided to both public and private patients – public patients through public inpatient bed capacity at Monash Medical Centre and Dandenong Hospital, and private inpatients through the co-located Jessie McPherson Private Hospital (a subsidiary of Monash Health), onsite at Monash Medical Centre, sharing high cost infrastructure and utilising the associated professional expertise of the cardiac catheterisation laboratories, the intensive care unit, cardiac CT and cardiac MRI services.

Acute Cardiac Services



MonashHeart is the largest provider of inpatient cardiac services in Victoria, admitting over 7,246 patients with acute cardiac conditions to its cardiac care units each year. Acute cardiac inpatient services are provided through four units:

1. 21-bed cardiac care unit at Monash Medical Centre;
2. 16-bed cardiac care unit at Dandenong Hospital;
3. 24-bed combined cardiology and cardiothoracic unit at Monash Medical Centre; and
4. 26-bed cardiac care unit at Jessie McPherson Private Hospital, Clayton.

With a self-sufficiency rate of 60 per cent for public patients but just 17 per cent for private patients, one of the goals of the Victorian Heart Hospital is to not only bring the capital infrastructure to a level expected by patients, but also to increase the amount of infrastructure to support 'geographical full time' senior medical staff and to ensure there is sufficient capacity in the Victorian Heart Hospital to meet both current and future public and private demand for cardiovascular services from a growing and aging population.

The acute cardiac service provides cross-site consultation at Monash Medical Centre and Dandenong Hospital, with two MonashHeart medical teams based at Monash Medical Centre (red team and white team each led by a consultant cardiologist) and one team rostered at Dandenong Hospital, providing on-call services 24/7. Senior medical staff are part of the one cross-site roster, led by service head Associate Professor Arthur Nasis, providing rounding seven days per week, supported by four advanced cardiology trainees and one general medicine registrar (on a six month cardiology rotation). This roster also provides an inpatient referral consultative service for non MonashHeart patients, both onsite at Monash Medical Centre and Dandenong Hospital and by telephone to all other Monash Health sites and regional and rural hospitals.

Cardiac CT Services



MonashHeart became a luminary site for the 320-slice Toshiba Aquilion One CT scanner in September 2008, the first health service to do so in the southern hemisphere. In 2012 the scanner was upgraded to the Toshiba VISION. The service head is leading international cardiologist cardiac CT expert Associate Professor Sujith (Sene) Seneviratne in collaboration with co-head radiologist Associate Professor John Troupis.

In 2016 over 3,270 cardiac CT scans were performed, the largest service in Victoria and one of the busiest in the world. Medicare data shows 6,700 cardiac CT scans were performed in Victoria in 2015, with MonashHeart accounting for almost 50 per cent of this. Inpatient and emergency department cardiac CT's are provided through the diagnostic imaging CT scanners at Dandenong Hospital and Casey Hospital, with the MonashHeart CT scanner at Clayton providing inpatient, emergency department and high-volume outpatient CT scanning, including research scanning.

MonashHeart was the first site in Australia to establish a dedicated cardiac CT facility physically based within a cardiology service, with dual reporting by a cardiologist and radiologist; a model that has been widely adopted across Australia. Its success is underpinned by the nursing team who manage patients pre and post cardiac CT – this is rostered out of the cardiac catheterisation laboratory nursing team, who have advanced clinical skills in cardiac care, high volume and rapid turnaround procedures and expedited day patient management.

The MonashHeart luminary site CT service is a leading site for research, with many high impact publications each year, a number of cardiologists undertaking PhD thesis in cardiac CT and close relationships with Toshiba Medical

Systems Japan for ongoing research and development. The MonashHeart cardiac CT service produce more CT related research than any other Australian service. Over 50 per cent of Australian cardiac CT accredited reporting consultants having been trained through MonashHeart programs.

Cardiac Rhythm Management Services



MonashHeart's cardiac rhythm management services incorporate both heart rhythm services and the cardiac rhythm management procedural laboratory. The service is led by Dr Jeff Alison who leads six specialist electrophysiologists, all who have undertaken subspecialty training overseas. Paediatric and adolescent procedures are performed by two visiting paediatric electrophysiologists (honorary appointments, based at the Royal Children's Hospital, Melbourne) and by the head of service Dr Jeff Alison. The service is supported by advanced practice CEPIA qualified cardiac technologists led by a lead cardiac technologist.

Heart rhythm services include the full range of ambulatory testing including Holter and loop monitoring, ambulatory blood pressure monitoring, exercise stress testing, six minute walk testing, device surveillance clinics and 12-lead ECG with services provided across all three MonashHeart sites. In 2016, 24,274 heart rhythm tests were provided by MonashHeart to inpatients and outpatients, public and private patients, paediatrics through to adults.

The dedicated cardiac rhythm management procedural laboratory at MonashHeart Clayton provided 381 electrophysiology procedures in 2016 and performed 716 device implants. Due to capacity constraints related to only a single cardiac rhythm procedural laboratory which is fully maximised, there has been little growth in service throughput over the past years, with lengthy waiting times for procedures, and a critical need for additional procedural laboratory facilities to meet demand.

Since 2014, the cardiac rhythm management service have instigated a number of quaternary clinics to improve patient access and introduce evidence-based patient management, with 786 consultations in 2016 through the:

- Cardiac inherited diseases clinic – a multidisciplinary team approach staffed a geneticist, genetics counsellor, electrophysiologist and paediatric cardiologist;
- Complex atrial fibrillation assessment clinic – a clinic specifically for difficult to manage atrial fibrillation, with access into the specialised MonashHeart cardiac rhythm management service; and
- General rhythm assessment clinic – a nurse led, electrophysiologist supported clinic for both brady and tachyarrhythmia's with telephone access to the nurse consultant for advice and support.

Each year two sub-speciality training fellowships are offered to cardiologists wishing to sub-specialise in cardiac rhythm management.

Interventional Services



The MonashHeart interventional service is the largest in Victoria and is based on a unique blend of experience and innovation. The service performed 4,882 procedures in 2016 utilising two dedicated cardiac catheterisation laboratories at MonashHeart Clayton. The interventional service provides a 24/7 STEMI service, performing 402 STEMI procedures in 2016, the largest volume primary percutaneous coronary intervention service in Victoria. Led by the head of interventional services Dr Robert Gooley, interventional procedures include:

1. Cardiac catheterisation – left and right heart catheterisation, 3,395 procedures in 2016
2. Percutaneous cardiac interventions – 1,487 procedures in 2016.

The full range and complexity of interventional procedures and intra-coronary imaging are performed in the cardiac catheterisation laboratories each year including:

- Left heart catheterisation;
- Right heart catheterisation;
- Intravascular ultrasound;
- Fractional flow reserve;
- Percutaneous transluminal septal myocardial ablation;
- Shunt closures;
- Balloon valvuloplasty;
- Transcatheter aortic valve implantation;
- Transcatheter mitral valve repair;
- Renal denervation;
- Optical coherence tomography;
- Percutaneous coronary intervention including complex intervention led by Dr James Sapontis such as
 - Left main angioplasty
 - Chronic total occlusion
 - Vein graft intervention.

MonashHeart was one of the first Australian sites to develop a structural heart disease program led by a multidisciplinary team of clinical champions and a nurse consultant, supported by the Monash Cardiovascular Research Centre team of research coordinators.

The service also boasts a comprehensive research and clinical trial component, establishing MonashHeart as a leading service of excellence, with particular expertise in leading clinical trials in structural heart disease and percutaneous transcatheter cardiac therapeutics such as stenting and IVUS.

MonashHeart is regularly invited to transmit live cases from the cardiac catheterisation laboratories via satellite to international cardiology conferences. Over the past two years, MonashHeart has broadcast live transmission of cases from the MonashHeart Clayton cardiac catheterisation laboratory to

- Scripps Structural Heart Intervention and Imaging Conference in the US (2015)
- SBHCI Interventional Congress in Brazil (2015)
- CSANZ TAVR Masterclass in Melbourne (2015)
- TCTAP Conference in South Korea (2016)
- AICT Conference in Taiwan (2016).

Four interventional training fellowships are offered each year, with strong focus for those cardiologists who wish to undertake a combined PhD and interventional training program.

Non-Invasive Imaging Services



MonashHeart is the largest non-invasive imaging service in Victoria, performing the full range of advanced diagnostic echocardiography including transthoracic, transoesophageal and stress echocardiography with 16,790 echocardiograms performed in 2016 from newborns through to adults. Approximately one third of this activity is inpatient work, with the remaining outpatient.

The adult service is led by Associate Professor Phil Mottram and the paediatric service by Associate Professor Sarah Hope. The adult service is staffed by cardiologists who have all undertaken sub-specialty training in echocardiography and most have completed higher degrees such as a PhD. The paediatric service is provided by paediatric cardiologist specialists, who are experts in non-invasive imaging and are actively involved in teaching and research.

Supported by advanced practice cardiac technologists - sonographers, led by a chief cardiac technologist and a lead sonographer the service has more than doubled its activity over the past 10 years, with inpatient and outpatient services provided across Monash Health's three acute sites. Despite this increase in activity, lengthy waiting times for echocardiogram exist, with little infrastructure opportunities to expand outpatient services and challenges in recruiting and retaining skilled sonographers.

The appointment of a point-of-care echocardiography educator in 2015 has seen the establishment of a robust education program for cardiology registrars, emergency physicians and intensivists across Monash Health in being trained to use ultrasound to make immediate patient care decisions.

Three one year fellowship training positions are offered each year to cardiologists wishing to sub-specialise in non-invasive imaging including all facets of echocardiography and cardiac CT. The team regularly act as invited speakers at leading cardiology conferences and publish each year in high impact journals.

Paediatric Cardiology and Congenital Heart Disease Services



The MonashHeart paediatric cardiology and congenital heart disease service is unique in Victoria, offering a comprehensive cardiology service to patients from foetal life and throughout childhood to the age of 18 as well as the treatment of adult patients with congenital heart disease. Led by Associate Professor Sarah Hope, the service is firmly embedded in MonashHeart as one of its six identified clinical services, sharing equipment, staff, skills, knowledge, research and educational opportunities.

Inpatient and outpatient services include:

1. Echocardiography;
2. Cardiac rhythm management (electrophysiology, ablation and implantation of pacemakers or implantable cardiac defibrillators for children weighing more than 30 kilograms);
3. Limited interventional procedures such as mitral valvuloplasty;
4. Cardiac CT and cardiac MRI;
5. Foetal echocardiography;
6. Heart rhythm services;
7. Outpatient clinics, specialist clinics (including the general paediatric cardiology clinic, adolescent & adult congenital heart disease clinic and paediatric murmur clinic) and private consulting; and
8. Inpatient consultation services to Monash Children's Hospital patients including patients in the NICU.

Paediatric activity has consistently grown over the last five years, and now is a significant proportion of MonashHeart activity. For example 16 per cent of all echocardiograms and 11 per cent of Holter and loop monitoring in 2016 were for paediatric patients. With the commissioning of the new 230-bed Monash Children's Hospital in April 2017 (on site at Monash Medical Centre) along with the significant expansion of Casey Hospital in 2019, it is anticipated that there will be continued growth for paediatric cardiology services into the future.

Each year two paediatric cardiology fellow training positions are offered with preference to those interested in concurrent research and or a PhD degree.

Monash Cardiovascular Research Centre



MonashHeart's research and education services are led by the Director of Monash Cardiovascular Research Centre, Professor James Cameron. The Monash Cardiovascular Research Centre is responsible for all research functions that support MonashHeart, the Department of Cardiothoracic Surgery, Monash Health and Monash University strategic plans. The Monash Cardiovascular Research Centre is a self-funded, independent research group within the School of Clinical Sciences of Monash University's Faculty of Medicine, Nursing and Health Sciences and is based at MonashHeart Clayton.

Through the active collaboration of cardiologists and cardiac surgeons within the Monash Cardiovascular Research Centre, clinical researchers have made substantial contributions to the field of cardiovascular medicine and surgery. It is renowned for high volume, high impact publications, translational research and clinical trials, many of which MonashHeart is the principle investigator.

Monash Cardiovascular Research Centre, through MonashHeart, attracts and coordinates the provision of new and novel treatment for Monash Health patients, including cost-free access to the latest clinical trial devices through research and trial arrangements with major multinational medical technology companies. It is internationally recognised as being in the top tier in the fields of cardiac technology, therapeutic devices, and invasive treatment of coronary artery disease, establishment of new approaches in the management of cardiovascular disease in the use of cardiac CT imaging and the application of arterial mechanics and function to establish a better understanding of cardiovascular pathophysiology.

The active Monash Cardiovascular Research Centre academic/research group include three professors, six associate professors and four senior lecturers. Currently (2017) there are three specialist cardiologist PhD students, one Masters cardiac nurse, 13 clinical fellows, three post-doctoral/early career researchers, two post-doctoral clinical fellow, one research manager, six research coordinators and three translational research nurses.

Over the past two years Monash Cardiovascular Research Centre awards and prestigious appointments include:

- Dr Rob Gooly, Young Leader Award, Cardiovascular Research Technologies, 2017
- Ms Mel Harvey, Masters in Nursing Practice, 2017
- Dr Om Narayan, PhD, Monash University, 2016
- Dr Adam Hutchison, PhD, Monash University, 2016
- Dr Rob Gooley, PhD, Monash University, 2016
- Dr Hashrul Rashid, Excellence in Medical Education Award, Monash Health, 2016
- Dr Brian Ko, best cardiac CT poster at ESC Congress, 2016
- Dr Brian Ko, appointed as Adjunct Clinical Associate Professor , Faculty of Medicine, Nursing and Health Sciences, Monash University, 2016
- Dr Arthur Nasis, appointed as Adjunct Clinical Associate Professor , Faculty of Medicine, Nursing and Health Sciences, Monash University, 2016

- Dr Yuvaraj Malaiapan, Doctor of Medicine, Monash University, 2016
- Dr John Troupis, Doctor of Medicine, Monash University, 2016
- Dr Dennis Wong, Doctor of Medicine, Monash University, 2016
- Dr Dennis Wong, appointed as Associate Professor , Faculty of Medicine, Nursing and Health Sciences, Monash University, 2016
- Dr Hashrul Rashid, Best Moderated Oral Abstract, TCTAP, 2016
- Professor Richard Harper, appointed Chair, MBS Review Taskforce – Cardiac, Australian Government, 2016
- Dr Arthur Nasis, appointed Co-head, Victorian Cardiac Clinical Network, Department of Health and Human Services, Victorian Government, 2016
- Dr Sarah Zaman and Dr Adam Brown, awarded Early Career Practitioner Fellowship, School of Clinical Sciences, Monash University, 2016
- Mr Kevin White, Executive Committee, CSANZ Interventional Nurses Council, 2016
- Dr Brian Ko, awarded Best Australia/New Zealand Abstract, SCCT, 2015
- Dr Arthur Nasis, PhD, Monash University, 2015
- Ms Jade Geer, winner JR Medical Prize, Graduate Critical Care Nursing, Deakin University, 2015
- Mr Kevin White, Best Critical Care Nursing Student, Australian College of Critical Care Nurses & Deakin University, 2015.

Other MonashHeart Services



Other MonashHeart services include:

- MonashHeart specialist clinics – for example the rapid assessment chest pain clinic (1556 attendances in 2016), hypertension clinic (252 attendances in 2016) and advanced lipid disorder program (commenced March 2017);
- Heart failure management through the early intervention systolic heart failure clinic, led by Dr Siobhan Lockwood;
- Cardiac MRI, through a shared service on a diagnostic imaging magnet at Monash Medical Centre, led by Dr Stuart Moir;
- Cardiology outpatient clinic service led by Dr Emily Kotschet with 2,069 attendances in 2016;
- Pre-admission clinic for the percutaneous coronary intervention program;
- Private consulting room consultation service across all three service sites with 19,576 attendances in 2016; and
- Cardiac rehabilitation (931 patients enrolled in 2015 with a 51 per cent completion rate), with seven programs offered across six Monash Health sites including a fast-track evening cardiac rehabilitation program.

Further information can be found on www.monashheart.org

PROFILE - VICTORIAN HEART HOSPITAL

The Victorian Heart Hospital is a once in a lifetime opportunity to create Australia's first dedicated heart hospital, a landmark facility bringing together the world's best in clinical cardiovascular care, basic and translational research and professional education and training. The Victorian Heart Hospital will be a leading patient focussed, fully integrated specialist hospital that will improve the lives of those at risk of, or diagnosed with, cardiovascular disease.

The Victorian Heart Hospital will be an iconic, purpose-built centre of learning and discovery excellence that will enable full integration of clinical and scientific resources and expertise with modern technology to drive real-world application. It will facilitate and expedite world-class novel and innovative clinical and basic research, advanced programs of education and clinical training, to create a new cardiovascular care paradigms accelerating the translation of major discoveries into timely and meaningful outcomes.

Indicative image of the Victorian Heart Hospital from Blackburn Road



Located on the Monash University Clayton campus, 2.5 kilometres from Monash Medical Centre, the Victorian Heart Hospital will support the integration of research, world-class training and education with clinical care, translating advanced developments into new and innovative models of cardiovascular care. Co-location of the Victorian Heart Hospital at Monash University will offer a unique network of research infrastructure and biomedical engineering expertise for clinicians, researchers and scientists to develop the next generation of preventative and therapeutic cardiovascular disease treatments, revolutionising cardiac care in Australia, with application world-wide.

Aerial image of the proposed Victorian Heart Hospital site on Blackburn Road



The Victorian Heart Hospital will create a new Australian innovation hub that will incorporate key medical technologies through medtech and other commercial partnerships. These partnerships will create access to the rapidly growing global medical technology and biotechnology markets, including technologically advanced diagnostic and therapeutic platforms. Capitalising on these opportunities, the Victorian Heart Hospital will be positioned to contribute to Victoria’s medical export capability including the expanding markets of international medical tourism and medical education.

The Victorian Heart Hospital Partners

The partnership of Monash Health, Monash University and the Victorian State Government to build the Victorian Heart Hospital is a new enterprise that will ensure the successful delivery of this innovative project.

MonashHeart is the cardiology service provider of Monash Health and the largest in Victoria, with an international reputation for high-calibre translational research and the very best professional training. Monash Health is Victoria’s biggest and most comprehensive public health service providing primary, secondary, tertiary and quaternary care to the south-east of the state.

Ranked in the top 1 per cent of world universities, and as a key partner, Monash University will contribute an international reputation for leading education and research.

The Victorian State Government Department of Health and Human Services delivers policies, programs and services that improve the health and wellbeing of all Victorians.

The Need

Heart disease is Australia’s leading cause of death for both men and women. While advances in treatment have led to improved health outcomes and quality of life for people who suffer heart disease, the growing and ageing population along with increasing rates of obesity, diabetes and sedentary lifestyles mean the incidence of heart disease is predicted to keep increasing.

Leading underlying causes of death by gender 2014 (Australian Institute of Health Welfare)

hospital best future-proofs for capacity growth and flexibility for new paradigms of care into the future. The Victorian Heart Hospital also provides the best opportunity for the development of enterprising models for surplus-generating activity, including:

- Growth in private patients including cardiology management and interventional and surgical procedures;
- Development of health export opportunities including international cardiac meditourism services;
- Proposal for export training packages for undergraduate and post-graduate cardiac education;
- Expansion of professional clinical training, short courses and higher post-graduate education; and
- Prospect for involvement of major stakeholders including industry partnerships and contract research.

The Victorian Heart Hospital Vision

The Victorian Heart Hospital will be Australia's first, dedicated, state-of-the-art Heart Hospital, positioning Monash Health, Monash University, Melbourne and Australia at the forefront of advances in heart disease, education and research worldwide. The Victorian Heart Hospital will be one of the leading heart institutions of the world, delivering internationally-recognised innovative, holistic and patient-centred care.

Research and Education at Heart

Embedded clinical research will be key at the Victorian Heart Hospital. The new hospital will house Monash Health's Monash Cardiovascular Research Centre, affiliated with Monash University, thus allowing expansion of current activities including clinical trials, public health epidemiology, contract research, registries, research partnerships and translational research.

Research capability will benefit from Monash University co-location with a unique network of research infrastructure and biomedical engineering expertise to develop the next generation for treatment of cardiovascular diseases, ultimately translating into new models of care. Research growth will arise from close collaborations with major research centres on the Monash campus, including the Biodiscovery Institute, Australian Regenerative Medicine Institute, Monash Institute of Medical Engineering.

The Victorian Heart Hospital will be a centre for embedded education, providing front-line training opportunities for health professionals in advanced procedure techniques and specialist skills. The Victorian Heart Hospital will offer training options for undergraduate and postgraduate medical, nursing and allied health professionals.

Research and education facilities will include a clinical trials centre for expansion of Monash Cardiovascular Research Centre activities in this field, a preclinical catheterisation laboratory, modular teaching spaces, clinical education rooms, and an interdisciplinary research incubator to support professional training, experiential placements and collaborative research science students, subspecialty training fellowships and PhD and Masters level opportunities for health professionals, as well as create an export business in international health professional education.

State-of-the-Art Facilities for Advanced Care

As a fully integrated centre of excellence located on the eastern side of Monash University's Clayton campus on Blackburn Road, Victorian Heart Hospital activities in clinical cardiology, interventional cardiology, cardiac surgery and associated care will be seamlessly linked within an education and research framework.

As delineated in the 2016 Victorian Government's *Design, Service and Infrastructure Plan* the Victorian Heart Hospital will be the centrepiece of a bold plan for the future of Victoria's health system. The hospital will be a HIMSS Stage 6 facility and will include the full scope of outpatient and inpatient cardiovascular care, rehabilitation and wellness amenities. The breath and scope of Victorian Heart Hospital infrastructure has been informed by four key targets:

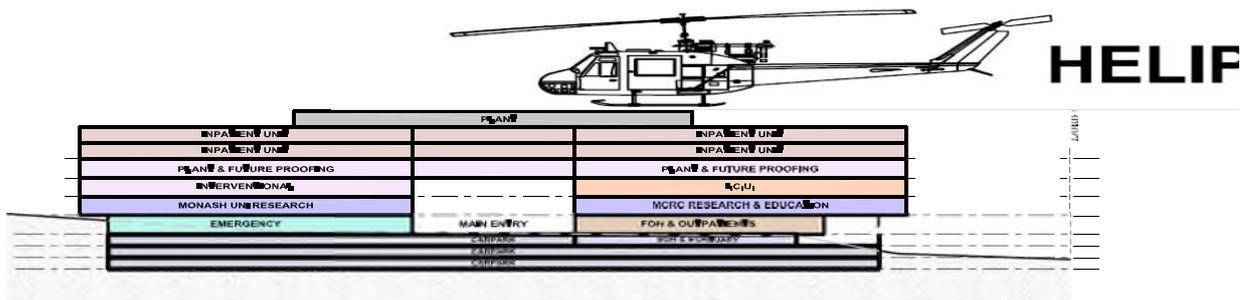
1. To increase public self-sufficiency from the current 60 per cent to at least 80 per cent of the catchment;
2. To implement of the 'hub' of a 'hub and spoke' model of cardiovascular care for the south-east of Victoria;
3. To develop a true 'geographic full-time model' - a single practice location for senior medical staff to undertake public, private, research and educational responsibilities at the one site; and

- To increase private market share from the current low base of 4.6 per cent of the state and just 17 per cent of the catchment.

Infrastructure will include:

- 4 cardiac operating theatres supported by 6 PACU bays;
- 10 cardiac catheterisation laboratories supported by 51 day bed bays;
- 112 public cardiac inpatient beds, 72 private cardiac inpatient beds and 20 bed cardiac intensive care unit;
- 22 emergency department cubicles supported by a helipad;
- An advanced imaging centre incorporating 18 echocardiography rooms, 2 cardiac CT scanners and 2 cardiac MRI's;
- A heart rhythm centre;
- Clinic and consulting rooms, all equipped for telemedicine;
- A health and wellness centre incorporating a 'hearts and minds' service, cardiac rehabilitation and integrative health;
- An international patient suite for medtourism consultation and assessment; and
- Clinical support services.

Early stacking and adjacencies proposal for the Victorian Heart Hospital



Financial Sustainability

To provide equitable, timely access to new and improved models of holistic cardiovascular care, Victorian Heart Hospital generated profit will be retained and utilised to offset the cost of care, with reinvestment into clinical care, research and education. Revenue will come from public WIES, travel medicine, private patient fees, export education and clinical research.

Financial modelling based on demand expectations and anticipated growth in patient volume shows that the Victorian Heart Hospital will be financially sustainable, achieving a surplus over the period 2021–2033.

Procurement Timelines

It is anticipated that further funding to support the capital build is expected to be announced in 2018. It is expected that full project team mobilisation will occur in mid-2018, followed by design development prior to construction commencement in mid-2019 with operational commencement approximately mid-2022.

PROFILE – MONASH UNIVERSITY

Monash University, Australia's largest university, is a university of transformation, progress and optimism. Our people are our most valued asset, with our academics among the best in the world and our professional staff revolutionising the way we operate as an organisation. For more information about our University and our exciting future, please visit www.monash.edu.

The Faculty of Medicine, Nursing and Health Sciences is the University's largest research faculty. World-class researchers work across disciplines including laboratory-based medical science, applied clinical research, and social and public health research. The faculty is home to a number of leading medical and biomedical research institutes and groups, and has contributed to advances in many crucial areas. Its expertise in life sciences and biomedicine is recognised both nationally and internationally. To learn more about the faculty, please visit www.med.monash.edu.au

The School of Clinical Sciences at Monash Health (SCS) is the largest clinical teaching school of Monash University. Most of the school's research and teaching activities are based near the main university campus at Monash Medical Centre Clayton although activities also extend to a number of external sites including Dandenong, Casey, and Moorabbin Hospitals and Monash Health's Kingston Centre. The school's researchers collaborate closely with relevant clinical areas in the hospital and in many cases hold senior clinical positions. Researchers also liaise closely with the Hudson Institute of Medical Research which is located on site and forms a Department of Molecular and Translational Sciences in the school, as well as other parts of the University and external research organisations. The school is a key partner of the Monash Institute of Medical Engineering. The school has an annual budget of approximate \$80M, in 2015 published >800 papers, and had >190 PhD students enrolled. SCS is closely embedded in Monash Health, with most academic leaders having joint appointments as clinical unit leaders. SCS hosts major University research centres, including the Centre for Inflammatory Disease and the Monash Cardiovascular Research Centre, as well as a major Stroke and Ageing Group, the Emergency Medicine Research Group, and numerous other research groupings. Further details may be found at: <http://www.med.monash.edu.au/scs/>

The Monash Cardiovascular Research Centre (MCRC) is a self-funding, independent research group within the Faculty of Medicine, Nursing and Health Sciences at Monash University (through the School of Clinical Sciences at Monash Health and Departments of Medicine and Surgery, Monash Medical Centre). We are formally recognised as the cardiovascular research arm of Monash Heart, Monash Health and Monash University. The Centre has an international reputation for excellence and achievement in basic and translational research, supporting the uptake of state-of-the-art cardiovascular treatments into clinical service. We offer daily clinical educational sessions, along with research meetings with all key MonashHeart clinical service groups. More information can be obtained here: <http://www.med.monash.edu.au/scs/medicine/cardiovascular/>

THE ROLE

The Professor and Director of Cardiac Medicine and Director of Cardiology/ Monash Heart will be responsible for leadership and ongoing strategic development of cardiology services across Monash Health consistent with our Strategic and Clinical Services plans. The appointee will be appointed as a member of the Senior Medical Staff of Monash Health and will fulfil a senior and significant clinical role as part of the appointment, providing medical leadership across cardiology services in upholding Monash Health's Vision, Purpose and Values.

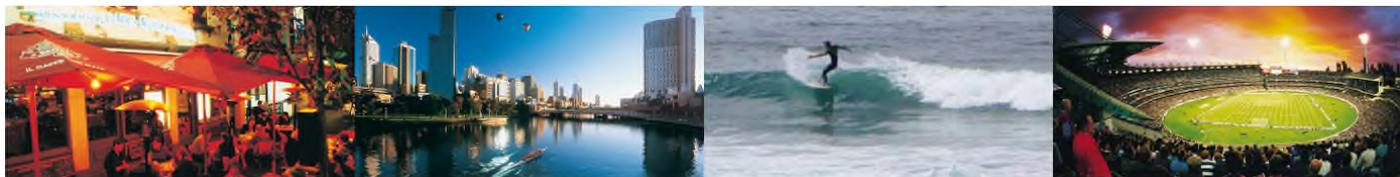
The appointee will be a full Professor of Monash University and a member of the School of Clinical Sciences at Monash Health, Faculty of Medicine, Nursing and Health Sciences. The appointee will lead, foster and grow excellence in research in the discipline of cardiology within the Department of Medicine, School of Clinical Sciences at Monash Health. The appointee will develop and maintain a research program that is fully integrated with that of Monash Health, MHTP and MPAHSC. The appointee will be responsible for developing a world class research program as evidenced by publications in high impact journals, success in peer review funding schemes, international standing and/or translational achievement. Relevant fields of research for the appointee are broad and include clinical or basic research relevant to cardiology.

It is noted that the appointee will also have the role of Director Clinical Services of the new Victorian Heart Hospital once it is completed and operational. The appointee will play a major leadership role in leading the planning and implementation of cardiac services, teaching and research in the Victorian Heart Hospital

The appointee will report to:

Program Director, Surgery and Interventional Services, Monash Health, for provision of clinical and consultative services in cardiology, development and management of the operational and financial plans of the service, and professional issues.

Head, School of Clinical Sciences at Monash Health for research, teaching and administrative duties relevant to Monash University.



THE LOCATION

Melbourne, Victoria, Australia

Melbourne, the capital city of Victoria, is a sophisticated world city with a vast array of attractive features. Named as the most liveable city in the world by The Economic Intelligence Unit, Melbourne boasts a vibrant culture and arts scene, is surrounded by world class beaches, and is the sports capital of Australia; with great weekend getaway destinations only hours away, there is always something new and exciting to experience.

Melbourne is home to a variety of sport events including the Australian Open Tennis Championship, the Australian Grand Prix and the country's most celebrated race day the Melbourne Cup Carnival. The city is also home to various Australian sporting codes with Australian Rules Football (AFL), Rugby League, Soccer and Cricket played at the world famous Melbourne Cricket Ground. Melbourne is also home to the Australian Racing Museum and National Sports Museum.

Famous for its laneway eateries and specialist eating hub, Melbourne has a lot to offer in terms of food and entertainment as well as history. Visit the Crown Entertainment Complex; enjoy the Lonsdale Street Antipodes Festival or visit Federation Square to visit the Australian collection of the National Gallery of Victoria and the Australian Centre for Moving Image. Melbourne also hosts the Melbourne International Comedy Festival yearly and one of Australia's longest running community festivals, Moomba.

In addition to its sporting and cultural attractions, Melbourne contains many attractions that are family friendly, historical and perfect for a romantic getaway. In the city itself, spend the day with your family at the Melbourne Zoo, Luna Park, and Science Works or take a picnic to one of the many parks in the centre of town. Exploring the rest of Victoria is easy with great wineries only hours away; drive the Great Ocean Road and see the twelve apostles and home of the Rip Curl Pro Surfer Championships Bells Beach; or visit Sovereign Hill, a historical gold mining town located just over an hour away from Melbourne in Ballarat.