Baker IDI Heart and Diabetes Institute is a world renowned medical research facility. Our work extends from the laboratory to hospital research and wide-scale national and international community studies with a focus on diagnosis, prevention and treatment of diabetes and cardiovascular disease. Over the years, our researchers have been responsible for many groundbreaking advances including:

› Establishing open heart surgery in Australia (in collaboration with The Alfred Hospital)
› Proving that exercise can lower blood pressure
› Improving preservation techniques for the long distance transport of donor hearts for transplantation
› Proving that mental stress and cigarette smoking both provide powerful, selective and potentially harmful stimulation of the nerves of the heart
› Developing techniques to assess stiffness of arteries, enabling the reliable early detection of atherosclerosis and hypertension
› Developing a method to repair heart valves without surgery
› Identifying key factors involved in blood clotting
› Defining the differences between the two forms of diabetes, type 1 and type 2
› Initiation and publication of findings from AusDiab, the first national study to provide estimates of the number of people with diabetes and obesity
› Establishing the first ‘one-stop shop’ for diabetes care in Australia
› Developing the first assay for a predictive test for type 1 diabetes
› Pioneering the first home blood glucose monitoring in Victoria and one of the first in the world

IN 2008 THE BAKER HEART RESEARCH INSTITUTE Merged With THE INTERNATIONAL DIABETES INSTITUTE (WHICH HAD OPERATED IN MELBOURNE FOR OVER 25 YEARS) TO FORM BAKER IDI HEART AND DIABETES INSTITUTE.
April 1, 1926: The Baker Medical Research Institute is established.

When John F. Mackenzie, a clinical doctor and medical researcher, had the idea for improving the laboratory facilities of The Alfred Hospital, he wanted the hospital to be able to keep up with the exciting new advances that were occurring overseas, especially in relation to the management of diabetes and other metabolic disorders. He was able to persuade his friend, the pharmacist and philanthropist Thomas Baker and his wife, Alice and sister-in-law, Eleanor Shaw, to assume financial responsibility for a medical institute. Together they decided that the institute should not only provide a better laboratory service for the hospital but should also have facilities for medical research. The Baker Medical Research Institute was born.

Research 1926 – 1948: The institute’s relationship with The Alfred Hospital from its very formation suggested it would evolve as a place of clinically relevant research. An overview of early research projects, before cardiovascular disease became the main focus in 1975, confirms this was the case. Early Baker research pursuits range from surgery to asthma and infectious diseases. Important early projects ranged in focus from the central nervous system and pioneering work by Mackenzie and colleagues into better techniques for X-rays of the cerebral fluid and studies of its cell content and chemistry in various diseases. Their work greatly improved the diagnostic ability for diseases of the central nervous system.

From this base, Laurence Cox, between 1930 and 1938, was able to relate clinical observations with pathological findings in a large series of brain tumours. His research was reviewed in the American Journal of Pathology in 1933. Work in infectious diseases by the Baker’s first director, William J. Penfold, led to a new technique for bacteriological research; “blood culture”, by which organisms circulating in the bloodstream were grown in the laboratory.


The institute established the Cardiovascular diagnostic Laboratory facilities of the Alfred Hospital. The Cardiovascular diagnostic Laboratory facilities of the Alfred Hospital were born.


The institute’s long-standing commitment to cardiovascular surgery – heart-lung perfusion systems, myocardial preservation, and hyperthermia.


Dr. Ken Morris performed the first open-heart operation in Australia in 1957.


Dr. Cyril Curtain, PhD, DSc (1955-1966)

A Structural Study of Abnormal Haemoglobins Occurring in New Guinea

C.C. Curtain

Her work contributed greatly to the introduction of calcium channel blockers, a keystone of treatment for high blood pressure and angina.

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<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<td>1975-1980</td>
<td><strong>Some proud achievements</strong>&lt;br&gt;1975 to 1980&lt;br&gt;› Hypertension Evaluation Clinic was expanded&lt;br&gt;› Gary Jerrings, Alex Bob, Alf Bannett and Paul Zimmet introduced clinical pharmacological methods to optimise antihypertensive therapy.&lt;br&gt;› Paul Nestel recruited to take charge of adenosine receptor research.&lt;br&gt;› Lipid Clinic was established&lt;br&gt;› Exercise testing centre for assessing ischaemic heart disease was established&lt;br&gt;› Heart Risk Evaluation Clinic was established (with the Victorian division of the National Heart Foundation)&lt;br&gt;› Commencement of collaborative studies between the Clinical Research Unit (now cRUH) and the Circulatory and Hypertension Experimental Unit at the Baker Medical Research Institute. This collaboration leads to world leadership in aspects of hypertension research and treatment.</td>
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<td>1980-1990</td>
<td><strong>Some proud achievements</strong>&lt;br&gt;1980 - 1990&lt;br&gt;› Development of radiolabelling methodology to study sympathetic nerve function in humans.&lt;br&gt;› Examination of the feasibility of using beta-adrenoceptor pro-drugs to prolong the duration of beta-blockade blockade.&lt;br&gt;› Development of analytical methods for measuring noradrenaline metabolites.&lt;br&gt;› First ever measurements of regional sympathetic nerve activity in humans.&lt;br&gt;› Observation that the severity of chronic heart disease in men is more linked to cholesterol-rich lipoproteins, while in women it is more linked to high triglyceride, triglyceride fractions.&lt;br&gt;› Investigations into the usefulness of partial beta-adrenoceptor agonists for the treatment of heart failure.&lt;br&gt;› Discovering that enalapril is useful for the treatment of congestive heart failure.&lt;br&gt;› Demonstration of distinctive thermoregulation in obese people.&lt;br&gt;› Demonstration that adrenoceptor (alpha and beta) are regulated in an inverse manner during chronic changes in sympathetic nerve activity.&lt;br&gt;› Identified that increases in physical activity induce favourable reductions in cardiovascular risk.</td>
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<td>1990-2006</td>
<td><strong>Some proud achievements</strong>&lt;br&gt;1990 - 2006&lt;br&gt;› Defined the genetic basis of pseudohypoparathyroidism.&lt;br&gt;› Discovery that enzyme actions provide a novel mechanism of selectivity of action of steroids.&lt;br&gt;› 11βHSD cloned for the first time.&lt;br&gt;› Hypertension caused by renal artery narrowing defined.&lt;br&gt;› Leptin shown to be produced in the human brain.</td>
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<td>2006-2009</td>
<td><strong>Some proud achievements</strong>&lt;br&gt;2006 - 2009&lt;br&gt;› New insight into the role of LDL cholesterol in diabetes and specifically, its role as an active player in glucose intolerance of the metabolic syndrome.&lt;br&gt;› Developed of urine test for diagnosis of coronary heart disease based on polymarkers.&lt;br&gt;› Identified sedentary behavior as a major target for health interventions.&lt;br&gt;› Development of world-first, catheter-based treatment for severe and resistant high blood pressure.</td>
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<td>2010-2011</td>
<td><strong>Some proud achievements</strong>&lt;br&gt;2010 - 2011&lt;br&gt;› Development of a score for assessing the risk of developing diabetes from AusDiab data which is now being used nationally to select people for diabetes prevention programs.&lt;br&gt;› Established a preventative health laboratory in South Australia and a dedicated Indigenous health research facility in Alice Springs.&lt;br&gt;› Developed of catheter system for the prevention of contrast-induced nephropathy (toxicity to the kidneys as a result of the use of contrast agents for coronary angiograms).&lt;br&gt;› Established Nuclear Network (a wholly owned subsidiary) as the premier early-stage clinical trials organisation in Australia.&lt;br&gt;› ACE inhibitors identified as a treatment in Marfan syndrome.&lt;br&gt;› Demonstrated that sedentary time, independent of exercise time, increases risk of diabetes and death.</td>
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