

**From ‘soft’ to ‘hard’ science:
The development of microvascular surgery in Australia**

**The transcript of a Witness to the History of Australian Medicine Seminar
held at the Bernard O’Brien Institute of Microsurgery (BOBIM), Melbourne,
on 30 March 2004**

Edited by Dr Ann Westmore

PARTICIPANTS

Professor James Angus
Professor Richard Bennett
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Dr Bryan Egan
Dr Michael Hickey
Dr Ken Knight
Mrs Sue McKay
Professor Wayne Morrison
Sir Laurence Muir
Mrs Joan O’Brien
Mr Barry O’Callaghan
Mrs Liliana Pepe
Mr Geoff Renton
Mr Philip Spry-Bailey
Mrs Maris Williams
Dr Ann Westmore

Others attending the meeting: Ms Barbara Cytowicz, Mr Michael Edwards, Ms Jenny Knowlson, Mrs Rosemary Leffler, Mrs Joy Rogers

Apologies: Dr John Connell, Mr Peter Couchman, Mr Keith Dawson, Mr Campbell Denevan, Ms Gail Evans, Mrs Amanda Farquhar, Mrs Lyn Flower, Mr John Haddad, Mrs Diana Jones, Mr John Ludbrook, Mrs Madeleine McCabe, Ms Gemma Nightingale, Mr Alan Skurrie, Dr Bill Stanisich, A/Professor Alastair Stewart, Mr Bruce Treagus, Mr Ron Walker, Mr Martin Wallace, Mrs Linda Wanders

Others who provided input after the meeting: Dr John Connell, Professor Gerard Crock, Mr John Haddad, Dr Keith Henderson, Dr Peter Henderson, Dr Aurora Messina, Dr Geraldine Mitchell, Ms Maggie Niall, Ms Gemma Nightingale, A/Professor Alastair Stewart, Professor Yoshio Tanaka, Mr Bruce Treagus, Sr Maureen Walters

Geoff Renton¹: Thank you all for coming today and spending your valuable time in participating in this Witness Seminar. I'd like first to welcome all our friends of microsurgery and give some background on this initiative.

We have made a few attempts to get an account of the history and pre-history of the Institute started over the last eight years focusing on the work of Bernard O'Brien at St Vincent's Hospital from the 1960s. So today marks an important day in recalling memories that bear on the history of microsurgery in Melbourne, Australia.

As a research institute we have published much over the years in relation to our project research and clinical outcomes. What has been missing are the thoughts of the people who participated, their activities including fundraising efforts, and the role of other institutions involved or affiliated with us that transformed this research institute into the world renowned place it is today. My hope is that while our thoughts along the journey to this time and place are still fresh and available to us, we can record them for posterity.

Many people have worked hard and long to establish the consortium of institutes/centres/companies we have today. These organisations are:

- The Plastic and Reconstructive Surgery Foundation, a company limited by guarantee which started as a legal entity on the 6th March 1970. On 4th August 1976 the company changed its name to the Microsurgery Foundation.
- The Microsurgery Research Centre which was incorporated as a public company on 15 June 1998 and renamed the Bernard O'Brien Institute of Microsurgery on 23 June 1998 limited by guarantee.
- The Victorian Tissue Engineering Centre Pty Ltd which was registered as a company on 7 June 2000. The Australian Tissue Engineering Centre was formed on 20 June, 2003.

Since 1970 we have had the following distinguished Chairmen:

- Sir William Kilpatrick 1970-1977
- Sir Laurence Muir 1977-1985
- Alan Skurrie 1985-1992
- Ronald Walker 1992-current

... and Institute Directors:

- Mr Bernard O'Brien 1970-1993
- Professor Wayne Morrison 1993-current

The history and structure will, with the people involved, push microsurgery into a new era of tissue engineering for the benefit of humanity.

¹ **Geoffrey J. Renton** BHA, MNIA, AFAIM, FACHSE (b.1945), joined the Bernard O'Brien Institute of Microsurgery (**BOBIM**) and the Microsurgery Foundation in 1993 as Director, Chief Executive Officer and Company Secretary. He later became Chairman of the Victorian Tissue Engineering Centre, Advisor to the Barbara Walker Centre for Pain Management and Research, and an Associate of the University of Melbourne Department of Surgery at St Vincent's Hospital

Ann Westmore²: I'd like to join Geoff in welcoming you here today. To help get oriented and thinking in historical terms, I'm going to refer to key events in the Institute's history and show you a few images.

A brief chronology of the Bernard O'Brien Institute of Microsurgery, widely referred to as BOBIM, might start in the 1960s when Bernard O'Brien, then a researcher in the University of Melbourne Department of Surgery at St Vincent's Hospital started microsurgery on small blood vessels and nerves. From an early stage he collaborated with the University's Department of Ophthalmology and this led to the creation of a Microsurgery Research Unit within the Hospital's Experimental Medicine and Surgery Department.

Now the dates are a little uncertain, but the Annual Reports and the recollections of key players would suggest the following sequence of events occurred:

- 1964: Bernard O'Brien commences experimental microsurgery work in old mortuary at St Vincent's using a microscope loaned by Professor Gerard Crock of the University of Melbourne Department of Ophthalmology
- 1968: microsurgery established within the University Department of Surgery at St Vincent's Hospital, with Bernard O'Brien appointed a research assistant and main investigator
- 1968: the concept of a Microsurgery Foundation is first mooted by Bernard O'Brien as a way of obtaining funding for research and facilities
- 1970: Microsurgery Foundation established (separate from the hospital), with Sir William Kilpatrick as Chairman
- 1972: St Vincent's renovates an old factory next to the present Institute with funding from the Australian Universities Commission, and the Experimental Medical and Surgical Unit is born
- 1976: the microsurgery research program is formally recognised by St Vincent's with the establishment of the Microsurgery Research Unit directed by Bernard O'Brien. It has four full-time Fellows with year-long appointments and eight sessional surgeons. A contentious issue that arises between the Unit and the Hospital and that recurs over the following years is what constitutes its equitable share of recurrent operating expenses.
- 1977: Bernard O'Brien reports that 10 of 125 delegates at the 4th International Microsurgery Symposium were trained as Fellows at St Vincent's Hospital
- 1977: Sir Laurence Muir succeeds Sir William Kilpatrick as Chairman of the Foundation, and Sir William becomes its Patron
- 1978: A delegation from the Foundation to Victorian Premier, Mr Hamer, whose funeral is being held today, wins support for up to \$150,000 over two years for

² **Ann Westmore** PhD (b. 1953) is an Honorary Fellow in the University of Melbourne Centre for the Study of Health and Society. She is responsible for the conduct of the Witness to the History of Australian Medicine seminar program and the content of the online historical compendium of the University's Faculty of Medicine, Dentistry and Health Sciences (<http://www.chs.unimelb.edu.au/programs/jnmhu/umfm/>)

building a Microsurgery Research Unit, with the Foundation promising to raise an equal amount³

- 1978: Sister Administrator, Maureen Walters, says she is unable to accept this donation⁴
- 1979: With St Vincent's Hospital and the Foundation having resolved most of their differences, the donation from the Government is accepted and the Sisters of Charity support a building for the Microsurgical Research Unit on land owned by them
- 1980: Consultative Scientific Panel appointed to comment on all research proposals. I believe Professor R.D. (Douglas) Wright, who was then Deputy Chancellor of the University of Melbourne, was the first chairman of that panel.⁵ The same year, Mr Wayne Morrison and Mr Allan MacLeod were appointed Senior Research Fellows
- 1983: Microsurgery Research Advisory Committee established under the chairmanship of St Vincent's neurosurgeon, Dr Keith Henderson.
- 1984: New \$1,000,000 microsurgery building opens, with Right of Occupancy guaranteed by the Hospital for 25 years
- 1985: Unit renamed Microsurgery Research Centre
- 1986: Launch of an appeal for \$500,000, as maintenance budget of the Unit expected to exceed \$250,000 per year
- 1986-87: Mr Julian Pribaz, a senior microsurgeon, leaves the Centre because of "chronic frustrations with the health system, including limited hospital beds and operating theatre times"
- 1992: Ron Walker, Chairman of the Microsurgery Foundation, describes the building housing the Unit as "hopelessly inadequate" and "unable to keep pace" with its enterprising staff.
- 1992: Bernard O'Brien retires and Wayne Morrison appointed Director of the Microsurgery Research Centre.
- 1995/96: the facility expands with support from Transport Accident Commission. The centre renamed Bernard O'Brien Institute of Microsurgery (BOBIM)
- 1996: Institute hosts the International Symposium on Contemporary Microsurgery
- 1998: Barbara Walker Centre for Pain Management and Research established.

³ According to then **Sister Administrator of St Vincent's, Maureen Walters**, the hospital had not given approval for the Foundation to seek funds on behalf of the Microsurgery Research Unit.

- Written communication, Maureen Walters to Ann Westmore, March 2005

⁴ According to Sr Maureen Walters;

"The priority of the hospital for the development of research was to seek sufficient funds to replace the existing area allocated for the St Vincent's School of Medical Research with a new building. Sir Robert Menzies had launched an appeal in 1970 but by the late 1970s insufficient funds had been generated to enable this to occur. A new approach to the Government for funds on behalf of the School of Medical Research was being made at the same time as the Foundation was seeking Government financial support for the Microsurgery Research Unit."

- Written communication, Maureen Walters to Ann Westmore, March 2005

⁵ **The Scientific Panel** oversaw the complex relationship between Bernard O'Brien and the hospital authorities. It also kept an eye on the financial aspects, "housekeeping" matters and so on.

- Written communication, Keith Henderson to Ann Westmore, April 2005

Now, of course, the fundamental reason for the Institute's existence is the patients, a number of whom are pictured here. The lady on the left had her face torn away and had to have major reconstruction to reattach it. The boy on the right had a new thumb provided for his hand using one of his big toes. Underpinning the surgery required was research conducted in laboratories and operating theatres which we'll be hearing about today.

Now, none of this would have happened without some of the personalities that featured large in the history of the institute. I've chosen images of a few key players, but of course there were many more. And here is an image of the leadership team which retained a large element of consistency over the years and which has benefited the Institute.

Then there are the fund-raisers who have played an essential role in the history and pre-history of the Institute, as successive Annual Reports indicate. They conducted many successful events, such as the Concert of the Year.

Other well-publicised events in the history of the Institute were the visits of State and Federal politicians and celebrities such as Archbishops, Nobel laureates and community leaders. These visits provided the Institute with legitimacy and a following among influential people in the community.

Achieving adequate accommodation and facilities for staff has always been a major concern because the laboratories, operating theatres and so on are where the science is conducted.

When we gathered briefly before today's meeting started, I heard quite a lot of discussion about Bernard O'Brien. It seems fitting that we begin with some recollections of him and his motivation to get involved in microsurgery. Perhaps we could start with Sir Laurence Muir who regularly received phone-calls from Mr O'Brien on Sunday mornings after Mass, as I understand it.⁶

Beginnings

Laurie Muir⁷: I assume it was after Mass.

⁶ Another to receive regular phone calls from Bernard O'Brien was **Keith Henderson**, Chairman of the Microsurgery Research Advisory Committee from about 1983 to 1987;

"Every Sunday night between 9.30 and 10pm, Bernard would ring me – for about an hour, floating new ideas, arguing cases for the Microsurgery Unit, soliciting advice on the best tactic with the hospital authorities and generally trying out his 'sales pitch' on me.

"He had difficulty, as did some of his supporters, especially in the Foundation, in understanding that a Unit which was part of the hospital and supported, however uneasily, but which was in a sense removed with its own ambitions and agenda and separate funds from the Foundation, was an 'in-house' competitor. This was bound to lead to tensions in the hospital, an organisation which was ultimately controlled solely by the Sister Administrator and the Order of the Sisters of Charity in those days.

"The hospital had limited control over Bernard. This was part of the reason for the Microsurgery Research Advisory Committee."

- Written communication, Keith Henderson to Ann Westmore, April 2005

⁷ **Laurence Macdonald Muir** Kt VRD, LLB FSIA FAIM (b.1925) first met Bernard O'Brien in 1941 and 1942 while a student at Scotch College. He served in the Royal Australian Navy, 1942-46 before studying law at the University of Melbourne 1947-49, later becoming a sharebroker and partner in Ian Potter and Co.

Joan O'Brien⁸: Yes, yes it was.

Laurie Muir: It was usually about 11 o'clock.

I first met Bernard⁹ on the football field, Xavier playing Scotch. Two years running we defeated Xavier. He was a tenacious little rover as many of you know. He was tenacious

(subsequently Potter Partners), 1960-80. He joined the Microsurgery Foundation in 1968 and was the second chairman of the Foundation, succeeding Sir William Kilpatrick in 1977. He served in that capacity until 1993 after which he became Patron of the Foundation and Patron of BOBIM. See *Who's Who in Australia 1998*

⁸ **Joan O'Brien** RFN SRN CMB (b.1925) gained triple certificates in infectious disease nursing, general nursing and midwifery in London and Salisbury before meeting Bernard O'Brien at the Odstock Hospital, Salisbury in 1957 where she was the sister second-in-charge of the female plastic ward. She married Bernard O'Brien in 1958 and accompanied him to New York in early 1959 where she worked as a nurse for six months before returning to London for the International Plastic Surgery Congress of 1959 and thence to Australia. Personal communication, Joan O'Brien to Ann Westmore, May 2005

⁹ **Bernard McCarthy ('Champ') O'Brien** AC CMG, BSc MD MS FRCS FRACS FACS(Hon), FRCSEd(Hon) (1924 -1993) studied science and medicine at the University of Melbourne graduating in the latter course in 1950. A leader, not a follower, his fighting spirit was evident early on. His good friend, John Connell, stated that he "*possessed not only a rare talent but also huge determination to excel in everything he attempted. His skill, his energy, application and drive lifted him like a champion above ordinary men. His friends say that the best way to get Bernard to do something was to tell him it couldn't be done. Miracles were to be done daily; the impossible achieved on a regular basis.*"

After undertaking his residency years and surgical training at St Vincent's Hospital and at the Royal Melbourne Hospital (1951-52) and working as a Demonstrator at the University of Melbourne in Anatomy (1953) and in Clinical Surgery and Histopathology (1954), he obtained a Master of Surgery degree in 1955. Overseas study then beckoned and, with the help of renowned Melbourne plastic surgeon, Benjamin Rank, he obtained a post as Nuffield Assistant in Plastic Surgery at Oxford University 1956-57 working under Pomfret Kilner. Impatient for hands-on experience, he took a post before completing the prescribed training at Oxford as plastic surgery registrar at the Odstock Hospital, Salisbury (1957-58). It was at this time that he met his future wife, Joan, a nursing sister.

In 1959, he sailed to New York where he was made Chief Resident to the Plastic and Reconstructive Service at Roosevelt Hospital, becoming one of the first St Vincent's graduates to gain formal surgical training in the US.

Returning to Melbourne the following year, he started a private surgical practice and was appointed acting assistant plastic surgeon at St Vincent's, an appointment that was not renewed in 1962. Surgeon and historian of surgery at St Vincent's, Ivo Vellar, suggests that "*the outspoken, well qualified but critical O'Brien antagonised not only the head of the unit but also the dental surgeon attached to the plastic surgical unit. From 1962 to 1967 O'Brien was in limbo. He did not have a teaching hospital appointment and contented himself by servicing the plastic surgical needs of the Dandenong Hospital and the Gippsland hinterland.*"

In 1964 he undertook studies on small blood vessels and nerves in a disused mortuary at St Vincent's that had been converted into a primitive experimental operating theatre using a microscope loaned to him by Professor Crock of the University's Department of Ophthalmology at the Eye and Ear Hospital.

In 1968, he was appointed honorary research assistant in the University of Melbourne Department of Surgery at St Vincent's, Acting Assistant Plastic Surgeon at the hospital, and received a research grant of \$2000. The following year, he obtained a number of other grants, the largest being from the National Health and Medical Research Council (NHMRC) to continue his research on experimental anastomosis of small blood vessels and nerves under magnification, thereby helping lay the foundations of clinical microsurgery.

His efforts led to his appointment as head of the St Vincent's Plastic and Microsurgery Unit and Professorial Associate in the University of Melbourne Department of Anatomy in 1983. He was largely

in everything, doggedly determined. And his vision and determination are why we're here today.

At quite an early stage – I think it was about 1968 – we had an informal discussion with Sir William Kilpatrick¹⁰, I think it was, and then some informal meetings. The early players were two great doctors from the hospital – Mr Henderson¹¹ and John Connell¹² -

responsible for establishing the pioneering Microsurgery Research Unit and its successor organisation, the Microsurgery Research Centre, at St Vincent's (1971-1992). After his death in 1993, the Centre was renamed the Bernard O'Brien Institute of Microsurgery.

He wrote or co-wrote two classic text-books on microvascular reconstruction, *Microvascular Reconstructive Surgery*, published by Churchill Livingstone in 1977, and *Reconstructive Microsurgery*, co-authored with Wayne Morrison, in 1987

Professionally active, he served on the Council of the Royal Australasian College of Surgeons and as its Vice-President, and as President of the International Federation of Societies for Surgery of the Hand and of the International Federation of Surgical Colleges.

He also participated in community debate on public health measures, and was one of a group of three influential doctors who appeared on behalf of the Australian Medical Association arguing for the introduction of compulsory seat belt legislation.

During his later years he was recognised as an Honorary Fellow by at least five international surgical colleges, including the American College of Surgeons and was awarded many prestigious prizes. In 1993, shortly before his death, he was awarded the highest honour of the Australasian College of Surgeons, the Sir Hugh Devine Medal, in recognition of his surgical contribution.

See "Bernard O'Brien", *16th Annual Report of the Microsurgery Research Centre, St Vincent's Hospital, 1991-93*, pp 10-11; "Bernard McCarthy O'Brien, plastic and pioneering microsurgeon" in Ivo Vellar, *Surgery and surgeons at St Vincent's Hospital, Melbourne 1950s-2000*, Publishing Solutions, 2004, pp 88-94, and Walter Jona, "Remembering who pushed for seat belts", *The Herald*, 6 Oct 1989

¹⁰ **William Kilpatrick** KBE (1907 -1985) was a successful businessman who became the first chairman of the Microsurgery Foundation (1970-76). From 1977 until his death in 1985, he was Patron of the Foundation.

¹¹ **John Keith ('Keith') Henderson** AO, MB BS FRCS FRACS (b.1923) first met Bernard O'Brien in the late 1940s when the latter was brought into St Vincent's Hospital with a sprained ankle on the day of the Interservice Championships:

"He was virtually carried into the Casualty Department by a group of Newman College stalwarts. I was the medical officer on duty. He commanded me to inject the ankle with local anaesthetic which was unheard of in those days. An hour or two later he won the pole vault and became 'the Champ'."

Earlier, in 1946, Henderson graduated in medicine from the University of Melbourne. After completing resident and registrar training, he undertook neurosurgical training at the Nuffield Department of Surgery, Oxford University (1951-54). He was Assistant Neurosurgeon at St Vincent's under Dr Frank Morgan (1955-66), Senior Neurosurgeon (1967-88) and Chairman of the Microsurgery Research Advisory Committee, 1983-87.

– Written communication, Keith Henderson to Ann Westmore, April 2005 and *Who's Who in Australia 1988*

¹² **John Leonard Connell** AO, MS FRCS FRACS FACS (b.1922) first met Bernard O'Brien in about 1941 at Newman College, the Catholic residential college for male students at the University of Melbourne, and their friendship grew, particularly after graduation. As a member of the St Vincent's Hospital board and the Microsurgery Foundation board from the mid-1970s, he was able to smooth the sometimes troubled waters between them.

His tertiary education started with law at the University of Melbourne in 1940 but after completing two years he decided this career path was not for him. He turned to medicine, graduating in 1947. He was appointed a resident at St Vincent's in 1948 and, after considering a career in orthopaedic surgery, settled on general surgery. He spent 1950 with the Department of Anatomy at the University of Melbourne before training at the West Middlesex Hospital under accomplished surgeon, William John Ferguson. He returned

as well as Gerard Crock¹³ right from the start. This was a nice cross section because it brought ophthalmology into the mix.¹⁴

to St Vincent's in 1954 and the following year was appointed honorary surgeon to outpatients, increasingly specialising in vascular surgery.

In 1977 he was appointed a Professorial Associate and, in 1980, foundation head of the hospital's Vascular Surgical Unit, which was one of the first specialist surgical units in Australia to split from general surgery. In 1983 he was awarded the RACS Medal for services to the Royal Australasian College of Surgeons, including assistance in formulating the national training program in vascular surgery. He retired in 1987. He was a director of the Microsurgery Foundation for much of the period between 1976 and 1996 which only confirmed his view of Bernard O'Brien as "*tenacious. He was a very nice fellow but nothing would get in his way. He was absolutely determined to do what he did. It was part of his nature*"

- Personal communication, John Connell to Ann Westmore, March and May 2005, and Ivo Vellar, *Surgery and surgeons at St Vincent's Hospital, Melbourne, 1950s-2000*, 2004

¹³ **Gerard W. Crock** AO, K StJ, MB BS FRCS FRACS FRACP FRACO (b.1929) was a close friend and medical confidante of Bernard O'Brien for over 40 years. He was a director of the Microsurgery Foundation for much of the period, 1976-96, and was subsequently retained as a member of BOBIM's scientific advisory committee.

As a young man, he started dental training at the University of Western Australia along with his twin brother, Harry Crock. The pair completed two years of the dental course with honours, before applying for entry to the medical course at the University of Melbourne. At the same time, they were accepted as resident students at Newman College. While at Newman in the late 1940s and 1950, Gerard Crock and Bernard O'Brien became friends.

On completing his medical training in 1953, Gerard Crock studied ophthalmology at Moorfields Hospital in London and at Johns Hopkins University, Baltimore. In 1963 he was appointed the inaugural University of Melbourne Ringland Anderson Professor of Ophthalmology in what was the first autonomous department within the University's Faculty of Medicine and the first ophthalmic academic department in Australia. Simultaneously he was made Director of the Retina Unit at the Royal Victorian Eye and Ear Hospital where he promptly established a registrar training program. As a result, Melbourne became a leading centre for ophthalmology training in Australia and the Asia-Pacific region. He pioneered ophthalmic microsurgery in Australia and made contributions to binocular indirect ophthalmoscopy, fluorescein angiography, vitreo-retinal surgery and corneal grafting techniques.

Around 1965 Bernard O'Brien, who had a thriving surgical practice at 82 Collins Street, introduced Gerard Crock to "*... the properties of fascia lata and plantanus tendons [in the leg], which we adapted for the treatment of complicated retinal detachment disease.*"

Over subsequent decades the pair and their colleagues in the University of Melbourne Department of Ophthalmology at the Eye and Ear Hospital and the St Vincent's Hospital Microsurgery Unit developed a strong collaboration: Separated only by Victoria Parade, they frequently visited each other to discuss and implement projects. They were at the forefront of applying new techniques and procedures and made many outstanding research contributions such as the development and testing of the single point corneal cutter, disposable surgical knives for lamellar corneal grafting, and the oscillating knife for corneal and cataract surgery. The collaboration was also crucial to early work on the vitreous infusion suction cutter which completely transformed the management of eye trauma, complicated retinal detachment and diabetic eye disease. Apart from personnel, the Department's strengths lay in the technical capabilities of its bioengineering department and scanning electron microscope department, while the Microsurgery Unit had access to an experimental operating room and animal house.

Gerard Crock only ever assisted Bernard O'Brien in the operating theatre on one occasion. The operation involved reconstructing the severed medial nerve in the right wrist of a 10-year-old boy, the experience reinforcing his view of O'Brien as "*imperturbable, thorough and painstaking*". Remarkably, the boy experienced a complete recovery in 12 weeks, about half the normal recovery time.

Gerard Crock was active in professional life, as the first Australian member of the International Council of Ophthalmology and, closer to home, as Chairman of the Senior Medical Staff at the Royal Victorian Eye and Ear Hospital. On his retirement in 1987, he was appointed Emeritus Professor of the University of Melbourne. In 2003, the University's Department of Ophthalmology established a Fellowship in his name which enabled young ophthalmologists to pursue their academic and research interests.

Quite early, he [Bernard] used to tell me about this young protégé he had. One day I met Wayne [Professor Wayne Morrison]¹⁵ and he looked like a boy. He said from the outset, and Bernie didn't easily admit these things, he said "Wayne is much better than I am at this skillful microsurgical work".

Bernard concentrated very powerfully on the hand. He liked to be known as a hand surgeon and I think he was our foremost hand surgeon. His ability to work night and day was incredible. He wrote many books that were so detailed I could never understand them.

Joan and I held his hand some of the time and we . . .

Joan O'Brien: Listened.

Laurie Muir: It was the determination to get this thing [the Microsurgery Foundation and Microsurgery Unit] off the ground that I most remember about Bernard, and his influence over others. He couldn't understand the Sisters of Charity.¹⁶ They are the most wonderful ladies and I used to keep telling him that. Noble ladies. But they frustrated him because they wouldn't do his bidding in the way he wanted it done. He was impatient in the end about that. We had much sorting out to do. Fortunately the hospital also had some great outside guidance from Barry O'Callaghan¹⁷ and Phil Spry-Bailey,¹⁸ who's here. Phil helped me sort out a few issues over the years. But Bernard wanted above all to have

- Personal communication, Gerard Crock to Ann Westmore, May 2005 and *Who's Who in Australia 2000*

¹⁴ According to Gerard Crock, Bernie O'Brien had "the most amazing networks of contacts" but was reluctant to say how he developed them: "*He jealously guarded the spring of his networking genius.*"

- Personal communication Gerard Crock to Ann Westmore, April 2005

¹⁵ **Wayne Allan John Morrison** AM, MD BS FRACS (b.1943) trained in medicine at the University of Melbourne, graduating in 1967. He spent several years as a resident medical officer at St Vincent's before undertaking advanced surgical training at St Vincent's, the Repatriation General Hospital, and Geelong Hospital. He gained a position as Surgical Registrar at the renowned plastic surgery centre at Canniesburn Hospital, Glasgow, before working in Paris at the Institute of Hand Surgery and traveling to the US where he worked on cleft lip and palate surgery at the University of Miami, Florida.

On returning to Australia in 1976, he established a reputation as an outstanding researcher and clinical surgeon while working as Senior Research Fellow in the Microsurgery Research Unit at St Vincent's. He pioneered several surgical procedures and was appointed Deputy Director of the Microsurgery Research Unit in 1984. During the following year he and Bernard O'Brien completed a 50-chapter book, *Reconstructive Microsurgery*, published in 1986. He was awarded a Melbourne MD in 1987 and was appointed Director of BOBIM in 1993.

He was active in professional societies including the Royal Australasian College of Surgeons and the Asia Pacific Society of Hand Surgery. See *Who's Who in Australia 1998*

¹⁶ The **Sisters of Charity**, the Catholic order of nuns that founded St Vincent's Hospital, Melbourne, in 1893, and which has since continued to supervise its operations

¹⁷ **Barry David O'Callaghan** AO (b.1936) studied law at the University of Melbourne before joining Corrs Chambers Westgarth (formerly Corrs) as a partner. Since the 1970s he gave legal advice to BOBIM and its predecessor organisations. See *Who's Who in Australia 1998*

¹⁸ **Philip Spry-Bailey** BSc BE (Civil) MBA (b.1932) studied science and civil engineering at the University of Sydney before working for companies including Mobil and Alcoa. From 1990 to 1996 he was Director and then Chairman of St Vincent's (public hospital), and from 1996 to 2003 he was chairman of the Sisters of Charity Health Service Ltd. See *Who's Who in Australia 1998*

a building; he wanted to have a truly world professional research centre. Personally, I've always got most pride from the way he trained people from all over the world. We used to have an old photograph gallery, and I do encourage you all to have a look at that because it was a great achievement.

The first building was only a million dollar affair but the phone calls used to come pretty regularly over that period. 'When are you going to get me my money? How are you going? And have you thought of this, and this, and this?' One day, he rang and said, 'Look, you're so close that I'm going to start the building'. He had obviously straightened out some issues with the Sisters. And then on another occasion, he rang me and said, 'Look, we're going so well with the building, I've already arranged for the Archbishop to come and open it. So you'd better make sure you've got the rest of the money in the bank by such and such a day.' That was Bernard, a great driver.

He was very ably supported by Wayne and his fellow surgeons, and by some very noble people who joined our board in the 1970s and the 1980s. Probably the best workhorse and my best contribution to the Foundation was getting Tony Charlton¹⁹ on board. Tony is a man of his word, he has vision and ideas and he was probably our most successful event organiser and fund raiser.

Perhaps that's enough for me for the opening. But I would say we honour Bernard O'Brien today. The Institute wouldn't have happened without him, and the brilliance of those who have followed him. It is a world-renowned institution now and I'm very proud to be its patron.

Ann Westmore: Perhaps Mrs O'Brien would like to say a few words about how it was that Bernard ended up being at St Vincent's Hospital in the mid-1960s.

Joan O'Brien: Well, Bernard did train at St Vincent's and I met him in Salisbury [England] in the plastic surgery unit. He was outstanding there. You could always get him if you needed him. He was always there. I think that probably was the foundation of this [Institute], now. He was a visionary, and an optimist, which I wasn't. And he was a lateral thinker. I could always go to him, with even a domestic problem and he would have a solution. He was remarkable in that.

But I think what attracted me to him in the beginning was his sense of humour, which was abounding. He imitated me and made quite a bit of fun. And I think that helped a lot.

Ann Westmore: Had he been doing research overseas?

Joan O'Brien: No.

¹⁹ **Antony Erling Charlton** AM (b.1929) worked in radio and television broadcasting (covering sport, current affairs and events) for over 50 years. He also worked as a fund-raiser for BOBIM for many years, and was a director of the Microsurgery Foundation, 1988-2000
- Written communication, Tony Charlton to Ann Westmore, March 2005

Ann Westmore: So how was it that he was doing research here at St Vincent's in the early 1960s?

Joan O'Brien: I think there were inklings of it. He was thinking about research even then [in England] but of course he was just finishing his four years [training in] plastic surgery. And then he went to Bill Littler²⁰ in New York where he had six months [training] in hand surgery. And I think that was inspiring.

I do remember him speaking of Wayne [Morrison]. Before Wayne went overseas we had a dinner. He looked remarkably young [with] dark, curly hair. Bernie said to me 'Watch him. Yes, watch him. He's very talented.' (laughter) Yes, the curls have gone but underneath the thatch of hair there's still something going apparently.

Bernie, I must say, was extremely loyal to colleagues, too. It was a joy to him when the Fellows from overseas came here. There was some affection as well. Many of them have spoken to me about him.

He had a green card on which, every evening after dinner, he would tick off about forty items. And then he'd make a new green card. And other surgeons overseas apparently are doing this too. They seem to remember a lot of details about him.

Ann Westmore: Now I don't know everyone here. So please feel free to interrupt and add your recollections at any point. Perhaps, Wayne, when did you first meet Bernard? And were you aware that this idea [of an Institute] was hatching.

Wayne Morrison: I've often tried to remember when I first met him and when my fate was sealed. It had to be when I was a first year resident, or as they're now called interns. That was in 1968.

My first recollection, I must say, was on the other side of the operating fence, in a sense. We had a rotation in anaesthesia and Bernard was operating. At that time he'd just introduced microsurgery. And this was a dreaded concept to both the anaesthetists - and Ralph Clark²¹ who's with us today, I'm sure, will tell us more later - as well as to the nursing staff and anyone who wasn't absolutely committed to the process, because it took hours and hours of apparently not very exciting observational time for the non-committed.

²⁰ **J. William Littler**, widely regarded as the father of modern hand surgery, developed reconstruction skills during World War II when treating an endless number of survivors with hand injuries. In 1951 he established the first hand surgical service in the US at the Roosevelt Hospital, New York, and went on to develop techniques of tendon repair, finger transplantation and methods to replace the small bones of the wrist

²¹ **Ralph Clark** MB BS FFARCS FANZCA (b.1924) studied medicine at the University of Melbourne, graduating in 1947. He trained in anaesthesia at the Alfred Hospital and at Oxford University before serving as Foundation Director of Anaesthesia at St Vincent's, 1955-84.
- Personal communication, Ralph Clark to Ann Westmore, March 2004

The needles that were used in those times to sew up the blood vessels were made from dipping nylon thread into molten metal so it coated the nylon with a metal sheath. And the point [of the needle] was made by physically sharpening it. So these were very valuable objects. And, of course, from time to time, the needle would be displaced. And to get to the point, the first recollection I have of Bernard is of all of us with torches on the floor looking for one of these needles which had been dropped. (laughter) And, of course, Bernard wasn't all that good at seeing things without microscopic vision so we were all out there - spent an hour I think - looking for needles, irrespective of the twelve hours or so that we were committing to the operation. So he wasn't a great friend of the anaesthetists as I recall.

I subsequently became much closer because, in the same year, I was appointed intern to John Connell, who Sir Laurence Muir has mentioned. John Connell was one of the elite general surgeons of St Vincent's in that period and he was a great supporter of Bernard. His [Microsurgery] Unit linked with the Plastic [surgery] Unit.²² Allan MacLeod²³ was the registrar to that unit and I was the first year intern. So I met Allan and I must say I was inspired absolutely by Allan MacLeod because the mentors of residents of any period are the next person up the rank, the registrars. Good or bad, they are a major influence on your subsequent experience.

Allan was like Bernard, and a huge enthusiast. He was extremely supportive of me, as Bernard was. And, of course, he soon dropped the word on Bernard that there was a kid out there who might be sucker enough to be part of this exercise. And so that's how it went on and I then became a resident with the Plastics Unit and with Bernard.

²² The **Plastic Surgery Unit at St Vincent's Hospital** was notionally established in 1956 with the appointment of Dick Newing as plastic surgeon to the hospital without rights to beds. An assistant plastic surgeon was appointed in 1961 and, by the end of the decade, the Unit occupied its own ward and had several surgical staff members, including Bernard O'Brien. See Bryan Egan, *Ways of a Hospital: St Vincent's Melbourne 1890s-1990s*, Allen & Unwin, 1993, pp 237-8

²³ **Allan Malcolm ('Sprog') MacLeod** MB BS FRACS (1936-2002) studied medicine while training in the Royal Australian Air Force. After completing his junior resident years he worked for the RAAF in Malaysia and Thailand. He then trained in surgery at St Vincent's under Dick Newing and in plastic surgery under Sir Benjamin Rank at the Victorian Plastic Surgery Unit at the Preston and Northcote Community Hospital. In 1970 and 1971, he undertook further training in plastic surgery at St George's Hospital, London and at Shriner's Burn Unit in Boston, developing expertise in reconstruction of the head and neck after cancer surgery.

In 1972, he returned to Melbourne where he worked at St Vincent's under Bernard O'Brien and Dick Newing, and at the Repatriation General Hospital. Among his many contributions to plastic surgery was the development of a technique to overcome the problem of dry eye, which involved transfer of the salivary gland. He authored over 50 scientific papers, mentored many plastic surgeons from around the world, and was a consultant plastic surgeon to the RAAF.

In 1993, he succeeded Bernard O'Brien as head of the Plastic and Microsurgery Unit at St Vincent's, continuing in the role until 2000 when he became head of Plastic and Reconstructive Surgery at the Peter MacCallum Cancer Institute.

See Anthony Penington, "Obituary: A/Professor Allan Malcolm MacLeod", *Surgical News*, 4, 2, 2003, and 'Vale Allan MacLeod Plastic Surgeon 1936-2002', *Bernard O'Brien Institute of Microsurgery Annual Report 2003/2004*

My recollections of Bernard as an individual have already been outlined. He had a great sense of humour, and so did Allan. So it was a fun time and a good experience to be part of this, and everyone was full of enthusiasm. Bernard's optimism and drive was just so charismatic and consuming that you felt that unless you performed to the same standard, you'd be letting the team down. So I really did feel obligated to go the extra mile and I think he appreciated anyone who did that. And people around this table all went through that whole thing, and became mates of Bernard because they were responsive to his beck and call. But he admired in them the talent that he saw and he was very generous to people he thought were talented and who would make the effort.

There are many other things you can say about Bernard, and they'll come out today. But they were my early experiences. He was known as 'The Champ' by everybody – 'champ' as in champion. I think there are varied descriptions of how that came about. My understanding was that at Newman College when he was doing medicine – he did science first before he did medicine which perhaps many people don't appreciate, so he did have a scientific background more than any of us of that period in medicine – he was a champion schoolboy athlete, I believe, in running and hurdles in particular. But when it came to the University, I think the inter-varsity sports had the Australian National Championship there. So Bernard, as in all his life, was opportunistic and, needing to win, he sometimes had to go around things rather than through them, although going through didn't discourage Bernard either. He heard about this relatively new sport called pole-vaulting which had been admitted to the University inter-varsity competition. So Bernard was seen night and day running around the University oval with this great long pole about ten times the length of Bernard. (Laughter) Apparently it was a rather common sight. But inevitably he conquered and became the champ.²⁴ He got a Uni Blue²⁵ in athletics for pole-vaulting and, forever after, was known as 'The Champ', which he didn't take as an insult. He actually wore the badge with pride. (Laughter)

Ann Westmore: Going back to your comments about hand surgery, Wayne. Does it lend itself particularly to microsurgery?

Wayne Morrison: Hand surgery was very much the birthplace of modern microvascular surgery, the joining of blood vessels. Microsurgery had been well established in ophthalmology and ear, nose and throat surgery. But in our field, reconstruction was microvascular surgery and the kindergarten training program, in a sense, was replantation stitching – putting things back on. That's what Bernard did. He established here as a research core the techniques of joining up small blood vessels. And he, with a chap named Shannon Bailey, I think, published in the very early years of microsurgery the best patency rates of joining up blood vessels in the world. This is invaluable in laboratory research cases.

²⁴ See footnote 11

²⁵ A University blue is awarded for sporting achievement. Sir John Eccles, another St Vincent's graduate and a Nobel laureate, also received a blue for pole-vaulting. See <http://www.science.org.au/academy/memoirs/eccles.htm#2>

Microsurgery also had begun in the micro-nerve field, joining up nerves. Again this was part of hand surgery, so it was hand surgery that was the first place [where microsurgery developed]. And Bernard had trained, uniquely in Australia probably, in hand surgery by the time he'd come back here so he was very well placed to take that on. And as Joan [O'Brien] has said, he was with Bill Littler who was the most famous hand surgeon in the world in that period.

Bernard also was opportunistic in his training in that he went to Russia before he came home I believe, Joan. It was a unique thing for an Australian surgeon to do. I'm not sure what he did in Russia but he made many contacts throughout the world. And of course he was a great traveler and a great communicator, so everybody knew Bernard from the field very early on. That's what attracted people to Australia to come for training.

Developing links with academia and hospital medicine

Ann Westmore: What was happening in St Vincent's at this time, in terms of the response of surgeons and anaesthetists to this human dynamo?

Dick Bennett²⁶: It might be appropriate if I have a few words. Bernard was obviously a remarkable man in terms of his vision, determination, powers of persuasion and personality. All of these things have been emphasised by others and I agree with them. He was a remarkable person. Perhaps in line with Laurie's comments about his phone calls, I can just recount the first time I had any contact with Bernard. It was shortly after I was appointed to the Chair of Surgery.

²⁶ **Richard ('Dick') Clayton Bennett** AM, MB MS FRCS FRACS (b.1930) first met Bernard O'Brien in late 1965, a few months after being appointed the inaugural University of Melbourne Hugh Devine Professor of Surgery at St Vincent's Hospital and shortly before he took up the appointment in January the following year. As a result of the meeting, O'Brien gained a toehold in academic surgery which, in turn, led to success in obtaining research grants to pursue studies in microsurgery.

Earlier, Dick Bennett had trained in medicine at the University of Adelaide, topping both Surgery and Medicine in 1953, his final year. After resident medical officer years at the Royal Adelaide Hospital and Adelaide Children's Hospital, he lectured in Anatomy at the University of Adelaide. He then undertook surgical training at the Royal Adelaide Hospital; the Western Infirmary, Glasgow; and at the General Infirmary of Leeds. In 1962 he returned to the University of Adelaide as a Senior Lecturer in Surgery and gained a Master of Surgery for a thesis on ano-rectal function. In 1965 he was appointed the inaugural University of Melbourne Professor of Surgery at St Vincent's, remaining in the post until his retirement in 1990. Under his leadership, the Department was recognised for its strengths in undergraduate and postgraduate teaching, surgical oncology, and the formation of strong links between academic surgery and the surgical profession.

He was active in professional life, serving as President of the Surgical Research Society of Australia, 1970-71; on NHMRC Regional Grant Interviewing Committees; and as an Executive Member of the Anti-Cancer Council of Victoria. He edited the *Australian and New Zealand Journal of Surgery* (1975-1990), established the RACS Foundation for education and research, served the College as Honorary Treasurer and Vice-President, and was awarded its Hugh Devine Medal in 1986.

After retirement from the Chair of Surgery at St Vincent's, he was appointed Emeritus Professor by the University, Executive Director for Surgical Affairs by the College (1992-97) and Director of Surgical Oncology at the Peter MacCallum Cancer Institute (1995-99). He served as Director of the Sisters of Charity Health Service (1991-99) and was Chairman of its Melbourne Regional Board (1997-99).

- Written communication, Dick Bennett to Ann Westmore, and *Chiron*, 1991, p 32, and *Who's Who in Australia* 2000

I came from Adelaide, I was fairly young, and I didn't know anyone in Melbourne, St Vincent's or the University of Melbourne and nobody knew me, I guess. I came over in the latter part of 1965. It must have been about August, September or October, something like that, before I took up the appointment in January, 1966. I had met the various members of the [St Vincent's] Advisory Committee, the Mother Rectress, some of the teachers and I had retired to my little room in the clinical school where they were putting me up.

At about 10.30 that night I had a phone call and you can guess - it was Bernard. It wasn't after Mass I'm sure (laughter) but it was after the day. And Bernard wanted to tell me that he was very keen to continue with some research he was undertaking. It involved microsurgery and work with tendons.²⁷ He was anxious to gain support from the new Professor of Surgery to help as best he could to develop this research. I thought that was great, but I did have to explain that I was still fairly new to the hospital and had not yet taken up the appointment. The Department of Surgery, as a Department had absolutely nothing except an appointment without any money, without any accommodation, and without facilities, staff or patients. When I came to St Vincent's that was the situation. So I really didn't have any opportunity to say to Bernard, 'Yes, I've got a laboratory, I've got technicians and money' and all that sort of thing, because I didn't have it. But I did indicate that my wish was to support the work and the research activities of members of the staff as best I could while I was developing an academic unit within this clinical school. So I think that's about where we started.

He explained to me then and in subsequent conversations, that he was doing work in the old animal [operating] theatre which we had at St Vincent's Hospital. The facilities there had been made available to him through the then Sister Superior, Mother Alphonsus.²⁸ He was doing a lot of work there and he had the assistance of Professor Crock, using various ophthalmological instruments and techniques.²⁹ He was hopeful of pursuing that work and getting financial support from outside philanthropic bodies. Now, in this regard, there was a problem which confronted me and also Bernard. If I've got it wrong I'm sure Bryan [Egan]³⁰ will put me right. But I think it's an historical fact that when

²⁷ This work involved collaboration with Gerard Crock on using leg tendons to treat retinal detachment disease. Crock, the University of Melbourne's Foundation Professor of Ophthalmology, provided O'Brien, his friend from University days, with vital academic, technical and infrastructure support at a time when he was in the academic wilderness. Crock and O'Brien also shared supervision of Bachelor of Medical Science student, David Fonda, who in 1972 undertook studies of applying microsurgery to small vessel anastomoses and scanning electron microscopy of normal aortic endothelium.
- Personal communication, Gerard Crock to Ann Westmore, April 2005

²⁸ **Alphonsus O'Doherty** (1895-1983) was Mother Rectress of St Vincent's for two periods, three decades apart. Before entering the Sisters of Charity novitiate she had been a teacher and a nurse. In her first stint, she was appointed Mother Rectress in 1933, at a time when the hospital had large debts and a stymied building program. She overcame these problems and was widely regarded as a strong and successful Mother Rectress by the time she left the position in 1939. Her second period in the job started in 1961 and she continued in the role until 1969. See Bryan Egan's *Ways of a Hospital: St Vincent's Melbourne 1890s-1990s*, op cit

²⁹ Crock and O'Brien were at the forefront of developing new microsurgical instruments and microsutures

³⁰ **John Bryan ('Bryan') Egan** MB BS PhD MA (b.1922) undertook medical training at the University of Melbourne, graduating in 1949. He was Clinical Assistant in Medical Out-Patients, 1959-66, and Assistant

Bernard returned from overseas, he was on the staff for a time but in 1961 he wasn't reappointed. Now it's very hard to imagine that, but it is an historical fact that he was not on the staff when I came as a young guy from Adelaide. So I was a little reluctant to put all my eggs – such financial eggs as I didn't have or any other eggs that I might have been able to find – into his basket if, at that stage, the hospital had not seen fit to re-appoint him to a position which he had previously held.

Now this was a difficult situation because obviously he was a competent, capable, enthusiastic and energetic plastic surgeon. But the decision was made well before I came here. This was the situation that existed at the time of my arrival. On the other hand, it was also clear to me that he had the energy and the ideas, the vision and the ability to get people to work with him. And so it was my wish to help him as best I could. I discussed this with Bill Keane,³¹ the Medical Superintendent, with Syd Sunderland,³² who was the Dean of the Faculty of Medicine, and others. Syd was at that time Chairman of the Medical Research Advisory Committee of the NHMRC, having been a Councillor and member of this subcommittee since 1953. He was also a member of the Australian Universities Commission and Governor of the Potter Foundation.

It was my view, and everyone agreed in these discussions, that it would be difficult for me to promote his applications for financial support to outside bodies, unless he had some sort of association with my Department and this could only happen if he was reappointed by the Hospital. If bodies are going to make large sums of money available for research, they want to know that it's going to an institution with a proper administrative infrastructure, and financial controls and an academic environment in which to work. We agreed, that if he were reappointed to the staff it would open the way

and then Deputy Medical Superintendent, 1974-82. He retired in 1982, equipped with a University of Melbourne MA, majoring in history. He then undertook a PhD in history at Monash University, and wrote a history of St Vincent's, *Ways of a Hospital: St Vincent's Melbourne 1890s-1990s*, published in 1993. In the process of writing it, he conducted two interviews with Bernard O'Brien

³¹ **William Michael Carmel ('Bill') Keane** AM, MB BS FRACMA (1919-2002) was involved in medical administration at St Vincent's for 35 years. After training in medicine at the University of Melbourne (graduating, 1943), he was a junior resident at St Vincent's (1943) prior to serving with the RAAF as a Flight Lieutenant (Med) 1944-46. In 1947 he resumed work at St Vincent's as a registrar and, in the same year he was appointed Medical Superintendent, a post he held until his retirement in 1982. In 1983, he was appointed Medical Director of the Caritas Christi Hospice, Kew, having served as medical officer to it, 1959-82.

Active in medical and nursing affairs, he served on the Federal Council of the Royal Australian College of Medical Administrators, 1974-79 and was its Honorary Treasurer (1974-78). He was also President of the Association of Medical Superintendents of Victorian Hospitals (1959 and 1979), a Member of the Medical Board of Victoria's Hospital Accreditation Committee (1973-82), and a Member of the Victorian State Committee of the College of Nursing Australia 1960-65. In addition, he served as a medical surveyor with the Australian Council on Health Care Standards.

See *Who's Who in Australia 1988*, and Obituaries by Bryan Egan in *The Quarterly*, Royal Australian College of Medical Administrators, and by Bernard Clarke, *The Age*, 1 February 2003

³² **Sydney Sunderland** KtCMG, DSc MD MBBS FRACP FAA (1910-1993) was, at the time University of Melbourne Dean of Medicine (1953-71) and Professor of Experimental Neurology (1961-75). For more complete biographical details see his entry in the University of Melbourne Historical Compendium of the Faculty of Medicine, Dentistry and Health Sciences

<http://www.chs.unimelb.edu.au/programs/jnmhu/umfm/>

for me to appoint him as a research assistant, not a paid research assistant, only a part-time one, but it would give him an appropriate academic association. He really did need such an association and, of course, a hospital appointment.

Following these discussions and some lobbying, he was reappointed as an Acting Assistant Plastic Surgeon by the Medical Advisory Committee of the Hospital in March 1968 and then he was appointed in a more permanent capacity in 1969 by the full Electoral College³³. Now that was at the end of '68. That at least opened the way for me to appoint him as a research assistant, a low-key job but it gave him a start and a real opportunity to pursue outside grants to help in the further development of his work.

Bernard submitted applications to umpteen outside bodies. He wrote them, he had them typed in his own rooms, he did all the work. But he did need support. And it was made clear to me by Syd Sunderland that research monies were not going to be channeled through the Department of Ophthalmology. And Maurice Ewing³⁴ at the University of Melbourne [Department of Surgery] at the Royal Melbourne [Hospital] had found it impossible to provide [Bernard with] similar support for various reasons. So I think my support as Head of a Department in his hospital carried a lot of weight. I know it did and over the next four years he obtained – I was only a supporting player – at least 18 substantial grants from outside philanthropic foundations and bodies such as the National Health and Medical Research Council [NHMRC], the Anti Cancer Council of Victoria and the Potter Foundation. I was a referee for all of these and many which were unsuccessful. On occasion, I actually stood in for him at his request in interviews, or attended interviews with him. We got those grants, all of which were channeled through the University and the Department of Surgery, from about ten different bodies. So this really did, I think, kick-start the work. He then was able to attract other support.

By 1969 the Department was able to provide small animal holding facilities, along with an adjacent laboratory. Later a small animal operating theatre also became available. Dr Peter Henderson,³⁵ an ophthalmologist from Professor Crock's Department, made

³³ The **St Vincent's Electoral College** was a committee comprising Hospital and University representatives, charged with the job of selecting and appointing senior medical staff

³⁴ **Maurice Rossie Ewing** CBE, MB ChB MSc MD(Hons) FRCS FRACS (1912-1999) was an Edinburgh-trained surgeon and senior lecturer at the Hammersmith Postgraduate Medical School (1947-55) who was the University of Melbourne's first professor of surgery, appointed in 1955. Initially he was based at the Alfred Hospital where he was allocated a surgical unit. He also maintained a sub-unit at the Royal Melbourne Hospital. He was an inaugural member of the Monash University Council and took part in discussions that decided the Alfred and Prince Henry's Hospitals would be linked to the Monash Medical School. He left the Alfred in 1962, continuing as Professor of Surgery at the Royal Melbourne Hospital until his retirement in 1977. For more complete biographical details see his entry in the University of Melbourne Historical Compendium of the Faculty of Medicine, Dentistry and Health Sciences <http://www.chs.unimelb.edu.au/programs/jnmhu/umfm/>

³⁵ **Peter Neil Henderson** MBBS DO FRACS FANZCO (b.1939) studied medicine at the University of Melbourne, graduating in 1963, and undertook training as an ophthalmologist. After gaining an honorary appointment in the University Department of Surgery at St Vincent's Hospital, he conducted innovative experimental work in microscopic surgery. He subsequently authored or co-authored a number of papers on new techniques and tools in microscopic surgery. As a result of this appointment he worked with Bernard O'Brien who encouraged him in his research.

- Personal communication Peter Henderson to Ann Westmore, March 2005

significant contributions, particularly with regard to the design and development of several instruments used in microsurgical anastomoses. The first major grant from an outside body was made in 1968, and the first of several grants from the NHMRC and the Potter Foundation were made in 1969. Additional operating microscopes were purchased with funding from these sources. In that year Bernard's appointment was upgraded to Senior Research Fellow, a position he held until 1975. During this time he was joined by some young specialists from other Melbourne hospitals and the first of his trainees from overseas.

Dr Thelma Baxter,³⁶ a histopathologist, who held part-time appointments in my Department and also the Department of Pathology on campus, undertook detailed studies of the sutured micro-vessels, and later the lymphovenous anastomoses, from slides prepared by a technician in my Department. The microsurgical techniques were also used by another research group in the Department studying kidney transplantation in the rat. Bernard's role was recognised in publications arising from these studies. The group worked well together, providing the opportunity for discussion, criticism and presentation of the work.

After four years, Bernard's enthusiasm and ambition remained great. He was not one to just take things quietly, he wanted to move along perhaps more quickly than I was able. Jim [Angus] may remember that at the end of 1966, the year after I arrived, the University was having considerable financial problems. I was never able to meet his growing financial and staffing requirements from Departmental resources. He was also irritated by the financial and administrative requirements of the Department and the central University offices. So things were difficult. Nonetheless between 1968 and 1972 the microsurgical project was kick-started academically and financially.

Now I was never a party to the [Microsurgery] Foundation.³⁷ Syd Sunderland was never party to the Foundation. Both he and I thought that a little odd but, nevertheless, we accepted it. John Connell was a vascular surgeon, Keith Henderson was a neurosurgeon, but neither was active in the research field. You folk were all active in the administration and the fund-raising and the organisation, so I didn't play a role in the Foundation and I don't claim to have, and it doesn't upset me. But what I feel is that there was a period when it was essential that the whole project had academic recognition and support to get it rolling. I think these four years were very valuable. Now after that, for various reasons as I said, Bernard was anxious to proceed more quickly than I think I could. So he subsequently arranged to put his applications to the NHMRC and other bodies through the hospital. In 1973 and '74 that's what happened.

³⁶ **Thelma Baxter** PhD was a histopathologist at St Vincent's and a lecturer and tutor in the University of Melbourne Department of Pathology

³⁷ The **Microsurgery Foundation** was established in 1970 to raise funds for microsurgery research at St. Vincent's. In the mid-1980s it was described as assisting the Microsurgery Research Unit "through difficult periods, providing microscopes and other funds for research. Though these funds were limited they were vital to the survival of the Unit". *9th Annual Report of the Microsurgery Research Unit, St Vincent's Hospital, 1984-85*, p 17

We still had funds in the University, we still had people receiving payment, we still had equipment being purchased, so there was a transition from about 1972-75 when there was a bit of a joint exercise. Later, the Hospital established the Microsurgery Research Advisory Committee³⁸ and all the funding was then maintained through the Hospital. The Foundation, as I understood it, was concerned with fundraising, rather than academic- or research-orientated issues. You were fund-raising. He needed funds and you did it very effectively, and that was great. But the Microsurgery Research Advisory Committee in the Hospital was there to look at the work being done, the people being attracted from overseas,³⁹ the hospital appointments they were given to enable them to participate in the work, sometimes clinical, certainly research, and to facilitate their use of the hospital's physical facilities such as its experimental research facility that I think was mentioned.

Now those facilities were also built and partly financed through the Australian Universities Commission (AUC) and partly staffed. Well, the AUC grant was one that I promoted – the hospital gave money, the Hospitals and Charities Commission gave money – so the original research theatres were then established and my Department was then able to provide one technician to help run the theatres. And Mrs Williams⁴⁰ here was the first lady who ran it. She was the Director of that. We used to do regular theatre inspections and report to various people. And so there was an overseeing role of the Microsurgery Research Advisory Committee of the facilities and the personnel and the actual projects being conducted. I can't quite remember when that finished but clearly it moved on to the establishment of an independent institute, still backed by the Foundation, and the research funding now coming from other sources.

Ann Westmore: During this transition period when Bernard was moving from being under a Department to more of a Hospital relationship, how was this resolved between you and the Hospital?

Dick Bennett: There were still funds in the University Department books and I was also a member of the Microsurgery Research Advisory Committee. And, with Dr Keane, the Medical Superintendent, all money if it had to go through Hospital channels, he or the Sister Administrator or CEO gave approval.⁴¹ The transition period wasn't all that

³⁸ In 1980, the NHMRC recommended the establishment of a **Microsurgery Research Advisory Committee** to give advice on the scientific organisation of projects conducted by members of the St Vincent's Microsurgery Unit. Bernard O'Brien reported back to the NHMRC that a scientific panel had been selected to give constructive comments on all research proposals. The advisory group included Professor R.D. Wright, Professor Graeme Ryan, Dr Ian McKenzie and Dr John Ludbrook.

³⁹ Between 1969 and 1976, 44 surgeons worked as **Fellows** in the Unit for periods of two months or more, 23 of them from Australian hospitals. The remaining 21 had come from the US, England, Scotland, Northern Ireland, France, Sweden, Italy, West Germany, Israel, India, Singapore, Indonesia, Japan, Thailand, Canada, New Zealand and South Africa. *First Annual Report of the St Vincent's Microsurgery Research Unit*, 1976

⁴⁰ **Stella Maris Williams** (b. 1935) trained in nursing, specialising in midwifery and plastic surgery before becoming laboratory manager in the St Vincent's Microsurgery Unit 1977 to 1991

⁴¹ The **Sister Administrator** for much of the relevant period was **Sr Maureen Walters** RSC RN Dip Nursing Admin BHealth Admin (b.1931). Sr Walters was Director of Nursing at St Vincent's Hospital, Melbourne, 1970-71 and Sister Administrator, 1972-87. She was Deputy Director of Nursing at the NSW Prison Medical Service, Long Bay, 1987-89; Sister Administrator of St Vincent's Hospital, Launceston,

difficult. I was on both committees, and when the funds in the Department had been fully utilised the project was entirely Hospital-based and then the responsibility of the Hospital finance officer and CEO. They also had some difficult times keeping up with Bernard's grants and overseas trainees! I wonder if Bryan [Egan] would like to say if I've got all that right. It's a long time ago and it involves things which I think are important and I wouldn't like to be taken out of context.

Bryan Egan: I think Dick Bennett exaggerates my knowledge and skills. In fact there was very little [relevant] archival material; I couldn't find very much at all. I'm speaking of those years, for instance, where I think Joan would be able to fill in a few gaps. To me, in retrospect, Bernard O'Brien was, for so many years, the man who wasn't there. Looking backwards, why wasn't he there? What was going on? How did he come back? I know some of the reasons why he came back. But I can't fault Dick Bennett's evocation of those years in retrospect. I don't think there is any paper surviving which will clarify it. Barbara Cytowicz⁴² has some papers from those years which are certainly relevant to Bernard, but not so much to microsurgery. It even seems to me, while listening to Dick, there might have been a Microsurgery Research Unit in another hospital in Melbourne from which Bernard O'Brien might have driven forward the events which have happened at this hospital.

Dick Bennett: As it happens I still have quite a substantial file with many papers relating to activities and events during these years, which I have reviewed in advance of this meeting.

Bryan Egan: It's wonderful for St Vincent's that it happened the way it did. But I've always wondered, or certainly when I was listening to Dick I've wondered, what would have happened if Maurice Ewing, for instance, had taken up Bernard O'Brien. Well, personal relationships over at the Royal Melbourne Hospital may have got in the way there, probably did, I think not between Maurice Ewing and Bernard O'Brien, but there were other people involved at the Royal Melbourne which, fortunately for St Vincent's, would have probably been a sort of frosty wind.

Ann Westmore: Are you saying that Bernard didn't get on with some of the plastic surgeons at other hospitals?

Bryan Egan: I don't think Bernard got on with all the plastic surgeons around Melbourne. Wayne Morrison probably has imbibed, osmotically or otherwise, knowledge which he will not be pouring out before us now. But Bernard and Wayne were so close. If Allan MacLeod were here, for instance, he would know the whole story.

Wayne Morrison: I think it should be said though, that the Melbourne Hospital and St Vincent's historically, a gulf has always been between them. And it's the extraordinary

1990-91 and its CEO, 1992-97; and Director of the National Board of the Sisters of Charity Health Service, 1997-2004

⁴² **Barbara Cytowicz**, BA(Hons) Grad Dip Info Mgt (b.1961) was appointed Archivist at St Vincent's Hospital, Melbourne in 2001

link with ‘Weary’ Dunlop⁴³, whose portrait is in our board room, who was an inaugural member of our Board, he was virtually the first person from the Melbourne Hospital to ever set foot from Royal Parade. So, I think Bryan, you are right that there were some personality issues. I think they were [between] more than just Bernard and another person. They were historic, they were religious, they were events that were linked to that period and that have taken a long, long time to dissipate.

Unknown voice: I don’t think, irrespective of whether Bernard did get on with individuals in other hospitals, that Bernard would have gone to the Melbourne Hospital.

Wayne Morrison: I don’t think that was something that he would really have entertained...Dick do you? I mean historically it was just not done. You were a St Vincent’s boy.

Dick Bennett: I think he was a St Vincent’s boy and would have stayed here. Knowing Bernard I think he would have kept on...

Wayne Morrison: ...and I think that has a lot to do with the successes of this unit, the Plastic Unit here, it was a very congenial, loyal group that was a team. That’s what made this unit at St Vincent’s unique almost worldwide. This loyalty, and sense of belonging as a team. And it’s very difficult to find any surgical unit, of no matter what persuasion, that has genuine loyalty throughout the whole ranks...within the microsurgery area, it did, and that’s largely I think one of its success issues that we all believe for whatever reason.

A bevy of supporters

Laurie Muir: I’m so glad you mentioned ‘Weary’.

Joan O’Brien: Yes, yes.

Laurie Muir: He was Bernard’s hero and, in many ways, best friend in the profession. And having heard the doctors speak, I think I can see why they [Bernard and ‘Weary’] were so close. They were loners within the profession, determined to do their own thing in their own way. I’ve been shocked [previously] to hear from some learned members of the profession how they begrudged ‘Weary’ his greatness, a greatness that came from the physical challenges of war and of heroism. Now Bernard didn’t come up quite the same way, but he had the same qualities of being a determined loner within the profession. And he ended up with quite a lot of critics within the profession.

⁴³ **Edward ‘Weary’ Dunlop** AC CMG OBE, MB MS FRCS FRACS FACS (1907-1993) qualified as a pharmacist in 1928 before embarking on a medical degree at the University of Melbourne, graduating in 1934. In 1938 he went to London to do postgraduate medical studies. These studies were cut short by the outbreak of World War II and, in 1939, he enlisted. He served in North Africa, Crete and Greece before commanding a hospital for war casualties in Java in 1942. Captured by the Japanese, he was imprisoned in Changi Prisoner of War camp, Singapore, and was deployed to help build the infamous Burma Railway. On his return to Australia after the war, he resumed his surgical career and became an inaugural member of the board of the Microsurgery Foundation. He remained a director of the Foundation from 1976 until 1990

The one he used to talk to the Board [of the Microsurgery Foundation] about was somebody in Sydney who was trying to set up a Foundation of the same name.⁴⁴ Bernard didn't have a good word to say about him. I don't know what has happened to him. It was always Bernard's greatest worry.

Can I just take a moment longer. 'Weary' Dunlop did cross all the boundaries and it was terribly important that he was Bernard's friend. He didn't ever miss a meeting. He'd leave a crowded surgery and come up. We used to meet in Eastern Hill which was Bernard's own building and Bernard, for security reasons, had to lock up at 6 o'clock. And there we were up on the first floor having our meeting and 'Weary' hadn't arrived. He was usually a bit late, but we didn't hold that against him. And suddenly, Bernard said, "Down fellows" because there was a rat-a-tat-tat on the window. And we thought some shrapnel or some such thing was being fired in our direction. So we all got down under the table for a while. And it repeated itself. So gradually I put my head up and looked down, and there was 'Weary' throwing two shilling pieces at the window. (laughter) A very innovative man. And we duly let him into the meeting. But he was a great man.

One other story. I have seen Bernard in action as the field marshal in the operating theatre, because I had a very deep and a very thick melanoma on my back which he diagnosed and said must be removed *instanta*. And from the discussion afterwards, he had eight microsurgeons in there, determined to look after his friend. I think the operation was actually done by Allan [MacLeod]. Bernard, as some of you will know, had failing eyesight for a very long time, and he had to become the field marshal in the operating theatre, rather than the operator. But he went on with absolute determination and saved a lot of lives.

Geoff Renton: Can I ask on that era how Sir William Kilpatrick came to the Board, and Justice Monohan⁴⁵?

Laurie Muir: They were Bernie's friends. Bill Kilpatrick had headed up the National Heart Foundation Appeal of the mid-1960s, would that be right? The first appeal. And there was a subsequent national appeal that Bill was involved in. And Bernard realised that he had great fund-raising potential. He [Bill Kilpatrick] was at the stage of just having sold his own family business, so Bernard felt he would have some time. And he approached him and was successful in the approach.

Mr Justice Monohan was very active in advising on the legal affairs of St Vincent's Hospital, and Bernard approached him. I don't know that either of them produced the results in the extraordinary way Bernard wanted them to. But they were terribly important

⁴⁴ This person was paediatric surgeon, **Earl Ronald Owen** AO, MB BS FRCS FRACS (b.1933), who was Bernard O'Brien's great competitor in Sydney

⁴⁵ **Robert Vincent Monohan** Kt, LLB (1898-1975) was a Victorian Supreme Court Justice 1955-70. He was among the first intake of Newman College students in 1918 and completed his legal training at the University of Melbourne

in the public face of our fund-raising. And 'Weary' was particularly important in that regard too, signing letters and acknowledging people.

Ann Westmore: What was Bernard's approach to you when he wanted you to take part?

Laurie Muir: He said that after some discussions with his colleagues - the ones I've already mentioned - that he wanted to formalise a Research Institute, and he wanted to have a Foundation that would fund it. And he felt that Sir William could see it through its early days but he wanted one or two other people from the business world to join with him. In fact he made the same speech to me as I made later to Tony Charlton, to Alan Skurrie,⁴⁶ to Ron Walker⁴⁷. (laughter) He saw, always, the importance of medical research, [and] the profession working harmoniously with business, yet within the right areas with funding.

I went with Sir Edward Dunlop to get the money from Dick Hamer⁴⁸. That was a delight. There's no way, the late Dick - what a day to be talking about that great man, there's no way he could have said 'No' to 'Weary', I don't think he had to say a word.

Ann Westmore: What do you recall of the meeting?

Laurie Muir: It was most amiable, friendly and he dealt with the request in five minutes and then we had three-quarters of an hour of some very pleasant catching up. They were two great soldiers – I was a sailor, so I was a bit out of it – they talked about the war.

Ann Westmore: Was Mr Hamer immediately attracted to the idea of having a research institute in microsurgery? Why would that have been? Would it have had anything to do with that war background and maybe returned soldiers?

Laurie Muir: I'm not sure about that. I think all governments have been impressed with Victoria's innovation in medical research and we are known to be the centre of it. And the Hamer Government was very keen to take up any new ideas. We talked partnership...if the Government will do this, the public will do the rest.

⁴⁶ **Alan David Skurrie** BCom (b.1917) served in the 2nd AIF during World War II before developing a successful business career, holding senior positions with Perpetual Trustees, Mayne Nickless, Hambro Aust, Amcor, Sands and McDougall, Zurich Aust. Ins. , Hongkong Bank, Hoyts and Cadbury Schweppes. He was Chairman of the Microsurgery Foundation from 1985 to 1990. See *Who's Who in Australia 1998*

⁴⁷ **Ronald Joseph Walker** AO CBE (b.1939), Joint Managing Director of Hudson Conway Ltd., has been Chairman of the Microsurgery Foundation since 1991. Highlights of a wide-ranging career in business, the arts, sport, and politics include Lord Mayor of Melbourne 1974-76 and Federal Treasurer of the Liberal Party. See *Who's Who in Australia 1998*

⁴⁸ **Rupert 'Dick' Hamer** AC KCMG, ED LL M FAIM (1916-2004) developed outstanding management skills during World War II when he served as a Rat of Tobruk, as well as in El Alamein, New Guinea and Normandy and rose to the rank of Major. In 1958 he was elected to the Victorian Legislative Council and in 1971 he moved to the Legislative Assembly. He served in a number of ministerial positions before becoming Premier of Victoria, 1972-81. The meeting referred to occurred on 26 April 1978. The Premier agreed to provide \$150,000 on a dollar for dollar basis for a building to house a Microsurgical Research Unit over the following two financial years. The building was to incorporate structural foundations capable of taking additional storeys for any future development. See *Who's Who in Australia 2000*

Ann Westmore: And Bernard wasn't with you at that meeting?

Laurie Muir: No.

Ann Westmore: Why was that?

Laurie Muir: Tactics, I think. (laughter.) No, in fact he was operating, he was with Wayne.

Ann Westmore: Well, on that note we might break and have morning tea. Then we'll meet back at half past eleven.

Morning Tea

An ever-widening circle of contributors

Ann Westmore: Continuing on where we left off, there was a moment this morning when reference was made to anaesthetists possibly having a view about Bernard and I thought we might just pick up on that, starting with Dr Ralph Clark's reflections.

Ralph Clark: I was associated with Bernie for quite a few years before he started pursuing microsurgery. He was always a very pleasant person to work with, and very popular. When the microsurgery started, it did produce tremendous strains on the Anaesthetic Department⁴⁹ because it did mean that when these operations went on for six, eight and sometimes twelve hours, and very often starting at six or seven o'clock at night and going right through [the night], from the point of view of personnel it was a tremendous strain.

From the point of view of maintenance of the care of the patient it also created quite a few new problems in keeping the patient well over such prolonged periods with surgery that we weren't accustomed to. Over the years we became experienced in dealing with those things as far as general maintenance of the patient was concerned and the type of anaesthesia produced, just general monitoring of the patient, keeping them hydrated, looking after their urine output, keeping the temperature of the patient reasonable for such a long time. Often it involved attending to specific details that were not always required for other patients.

Ann Westmore: What length of time are you talking about here?

Ralph Clark: Quite a few of the operations would have gone for 12 hours, and started at night-time. Of course, at that stage, staffing wasn't such that we could say to those people, 'OK you can have the day off because you've been working all night'. So sometimes, physically, it was difficult from a staffing point of view.

⁴⁹ The **Department of Anaesthesia at St Vincent's Hospital** was established in 1955 under the leadership of Dr Ralph Clark

Ann Westmore: So did that create friction? Suddenly you have surgeons wanting to do things that go on for much longer than ever before.

Ralph Clark: I wouldn't say it caused friction. It caused physical demands and fatigue. And that again is one of the problems in anaesthesia, of course, if you become fatigued and lose your concentration, mistakes can occur. So that's something that had to be catered for. We usually had at least two, if not three, people involved with the patient so that there was an ability to have some relief and a cup of tea, that sort of thing, at various times. As did the surgeons, of course. We admired the ability of the surgeons to maintain their concentration for such tremendous periods of time, with good temper. So there was, shall we say, a physical and mental demand on both the surgeons' side and the anaesthetists' side. It really involved meticulous attention to detail from the anaesthetists' point of view, as with surgery too of course, much more so than you might expect for a two or three hour operation, keeping patients in good condition with adequate replacement of fluids for such very long periods.

Ann Westmore: So that was a scientific challenge for you to do that in an excellent way. Did that lead to some innovations in the anaesthetic line?

Ralph Clark: I suppose the combination of general anaesthesia and local anaesthetic blocks which improved the sympathetic blood supply to the areas that were being operated upon, often that helped to maintain good perfusion to the vessels that were being sutured. I suppose to a certain extent that was an innovation, yes. But in general it was just a matter of attending to the same principles of anaesthesia as for other things, but with greater attention to detail and for prolonged periods.

Ann Westmore: And were there some anaesthetists who were better at that really lengthy operation, who might be called in when the microsurgery was to be done?

Ralph Clark: In the early years, most of the cases occurred as "urgents", and the anaesthetists on call at that time supplied the service. As more elective cases were done in daytime, a few sessional anaesthetists were allotted, but dropped out after a few years. Bill Stanisich⁵⁰ took a great interest in the program, and was the backbone of the service for many years. It was he who perfected the refinements of technique that helped to produce such excellent results. Unfortunately Bill was unable to come today.

Quite apart from that, one memory I have of Bernie O'Brien is during operations of any sort, for example, at the [St Vincent's] private hospital where he had a private list and I was involved in giving anaesthetics. Come morning tea time and Bernie would come in and instead of having his cup of tea like the rest of us, he'd immediately go to the telephone with the back of an envelope with twenty things written on it –

Joan O'Brien: The green card! (laughter)

⁵⁰ **Vilim ('Bill') Stanisich** MB BS DA FFARCSI FFARCS FFARACS was Senior Anaesthetist, St Vincent's Hospital and Barwon Health Clinical School at the time of the Witness seminar

Ralph Clark: It might have been a green card sometimes, but it was usually the back of an envelope. He'd immediately go to the phone and start making phone calls until it was time for him to start the next case. I mean the rest of us would be sitting down having some biscuits and a cup of tea. That just shows this enthusiasm he had at all times.

Ann Westmore: Professor Jim Angus, the Dean of Medicine at the University of Melbourne, you would have known Bernard from your days at the Baker Institute?

James Angus⁵¹: Yes, thanks Ann. It's a great privilege to be today because this Institute has a soft spot in my heart. I spent 18 years doing full-time research at the Baker [Medical Research Institute] so, from one researcher to another researcher, and from one institute to another, there was a warm bond. But we obviously came from the other camp, at Monash [University], rather than [having] a Melbourne [University] affiliation.

But there was one of these overseas Fellows [working with Bernard O'Brien] who had trouble with a flow meter. And they learnt that I was measuring blood flow in very small blood vessels at the Baker Institute, particularly in the small coronary arteries, and I also had been trained in Sydney on how to actually make the electromagnetic flow probe. So I came over here on regular occasions to help them with their equipment and Mrs Williams used to control whatever I did, because I was a foreigner.

Maris Williams: I wasn't all that bad! (laughter)

James Angus: This was in the very early '80s, and these Fellows they were fantastic. They were like Honours or PhD students and they respected what we had to say. The other plus I had, being a pharmacologist, was that I was very interested in blood vessel spasm. Coronary artery spasm and variant angina was what I was working on at the Baker. And of course when surgeons raised the skin flaps the vessels went into spasm. And so, could there be a pharmacological treatment that they could just drip on the vessel and the spasm would disappear? So we went through the pharmacopoeia with calcium entry blockers, glyceryl trinitrite, local anaesthetics, alpha blockers, thromboxane

⁵¹ **James Angus** BSc PhD FAA (b.1949) trained in pharmacology at the University of Sydney before undertaking research for a PhD on the effects of drugs on blood vessels at the the Royal Prince Alfred Hospital. He continued this line of study in Melbourne at the Baker Medical Research Institute and then at University College London and the Wellcome Research Laboratories in England under eminent pharmacologist, Sir James Black, who went on to win a Nobel Prize. He continued his research at the Baker Institute during the 1980s, and in 1990 became its Deputy Director. In 1992 he was appointed to a Personal Chair in Pharmacology at Monash University where he added to his prolific research output. He moved to the University of Melbourne to head its Pharmacology Department in 1993 and in 2002 he was appointed Deputy Dean of the University's Faculty of Medicine, Dentistry and Health Sciences. In mid-2003, he became Dean, with more than 200 refereed journal papers and reviews to his name. Among many professional activities, he served as a Director of the Microsurgery Foundation from 1998 to 2003. See also *Who's Who in Australia 2003* and the University of Melbourne Historical Compendium of the Faculty of Medicine, Dentistry and Health Sciences, <http://www.chs.unimelb.edu.au/programs/jnmhu/umfm/>

inhibitors and then of course prostacyclin, which you had to make very quickly. And so we wrote a number of papers with these Fellows.⁵²

And then Bernie felt if I knew so much – and in the early 1990s I went onto the NHMRC Grants Committee – so he thought it would be nice if I could also help him write some grants – so I was brought onto the Scientific Advisory Committee. The interesting point was that Bernie wanted [financial] support for these overseas Fellows. Wayne and I were just saying that it was around the \$20,000 mark. We were using NHMRC funds to support overseas Fellows. No-one else in the country was doing that. And I had to defend at my own level why the money would be spent on these people. But the benefits were there.

Anyway with that connection, it wasn't long before Wayne thought I should also be a Board Member. So I had a lot of fun serving the Board under two Chairmen. And then when recently I became Dean I was asked to join many, many other Boards and so I thought I should move on. But it's been great fun.

Ann Westmore: How did you defend the [NHMRC] expenditure on the overseas Fellows?

James Angus: Almost by saying that it was equivalent to a PhD scholarship. It was only for one year. If you looked at surgical research in the country, it was a very under-resourced area. And here was a group - a critical mass under one roof – where they could share so much. So it was a great investment. OK it was foreigners, but they were going to obviously be the larger family, the world and the patients were going to benefit. So why not? We've got to keep saying those sorts of things. It's a global village.

Laurie Muir: Perhaps Wayne should tell us how many countries have backed people that this Institute has trained, and how they are doing?

Wayne Morrison: Well that's a statistic that we don't really have accurately. We've loosely said that more than 200 people from around the world have trained [at the Institute]. There aren't many countries that I can think of that haven't been part of that group. They've virtually come from every continent. Many of them have come from Third World Countries but the great majority are from the elite places of the world. It's a reflection, I think, certainly in the early years, of the standing of this place. People from America and Japan who also were putting their toe in the water with early microsurgery, saw this place as the epicenter. As one of your early slides showed, 10 out of 120 or so delegates [at the 4th International Microsurgery Symposium] had trained here at St. Vincent's.

That ratio continues in a way. Many of those people have gone back and established big centres and have become internationally recognised people. I think it's been a great vision of Bernard that overseas people have gone back as great advocates, not only of this

⁵² For example, Rao V and Angus JA (1983), *Plastic and Reconstructive Surgery*, 17, pp 241-247; and Knight KR, Angus JA et al (1991), *Journal of Surgical Research*, 50, pp 119-123

place, but of Melbourne, Victoria, and Australia in general, and St Vincent's of course. It's been a very good PR exercise and something, I think, that was very visionary at that time. In surgery at least, we've often gone overseas to train and with the concept that we're from a small place that was not worth anything. It's often not until you go overseas and test the ground that you get a feeling for where you are in space. And I can honestly boast that St Vincent's, at that period, was very much world-class and people who came here experienced that and went back.

So Laurie, the numbers are a bit rubbery, but they are in the hundreds. Most of them have come for one year, nowadays they come for two years. Most of them now are self-funded which again is a reflection of how much they value the place. Previously we did offer scholarships.

It needs to be appreciated that people from many countries can't get their own funding, and I think there is an obligation for better-funded countries and centres to have money made available through a Foundation. Particularly, it needs to be acknowledged, it's one thing Australia has done for international medicine because a small amount of funding can make a huge difference to people from Third World countries. So that needs to go on. But the quality of the applicants has continued and, in fact, it's improved.

Bryan Egan: Can Wayne explain whether the Bernard O'Brien Society is still functioning, which meets at the International Society of Reconstructive Microsurgery?⁵³

Wayne Morrison: Certainly it hasn't really functioned in recent times, Bryan. It demanded some tower of energy to really be the organiser of that and many people ran it for a while and when it was a smaller group it was functional. But the numbers really are getting too big. We certainly need an international meeting, just on the basis that we know each other, and the Bernie O'Brien Institute is the linchpin. But it's not under the banner of the O'Brien Institute. But that was a very good concept and a very important bonding period.

James Angus: Can I just come back to Wayne's point about the value adding we do for the world in terms of this training. It was something I mentioned to Alexander Downer⁵⁴ on Friday when he came to the University. He had not appreciated just how much we are giving to the rest of the world through our medical research. He was just blown away by it. I mentioned to him that he has the Youth Ambassador Abroad Scheme for the under 30s. My daughter was on that for six months as a doctor in Mongolia because, as Roger Short⁵⁵ said when he used to teach out at Monash, Australia's greatest gift to the world is through its youth and through its research. And he [Short] said, one third of the doctors coming out of Monash and, in fact, all of Australian medical schools, should spend up to

⁵³ **The Bernard O'Brien Society** is a society of alumni who trained in microsurgery at St Vincent's in Melbourne. It was fostered by Dr Jim Steichen of Indianapolis, a 1975 Fellow who later became an eminent US hand surgeon. It met regularly from 1983

⁵⁴ Federal Foreign Minister, **Alexander Downer**

⁵⁵ **Roger Valentine Short** BVSc MSc PhD ScD FRS FRSE FRCVS FAA (b.1930) formerly Professor of Reproductive Biology at Monash University and, at the time of the seminar, Wexler Professorial Fellow, University of Melbourne Department of Obstetrics and Gynaecology

one year away. And Alexander Downer actually has got this idea. He said ‘You’re doing all this work, basically *pro bono*. You mean you’re not coming to the Government for extra funds for this?’ We said, ‘No, it’s what we’re doing for world peace, we’re world ambassadors for the way we go about our business in research and teaching.’

Ann Westmore: Whilst these Fellows were coming back and forth, was there also a scientific component of this? Were there also scientists from other parts of the world who came to the Institute for training?

Sue McKay: I started in 1973 as an employee of the hospital working with Mr O’Brien. We actually started in the old mortuary before going into the new building. The Fellows had a very tiny office with two chairs which was their tea-room, their office and their lunchroom. They did everything in that room and they never complained because they were where they wanted to be. And they were learning a lot. Also at that time, they were developing, Wayne mentioned about the suture, actually I have an article talking about the suture. At the same time, there was the double clamp being made which [in some quarters came to be known as] the Henderson-O’Brien clamp which was used for micro-vascular surgery.⁵⁶

Wayne Morrison: The Henderson involved in that was Peter Henderson, the ophthalmologist, not Keith Henderson, the neurosurgeon.

Sue McKay: And Bruce [Treagus]⁵⁷ who was here, but had to go over to the Hospital, he actually started repairing Mr O’Brien’s instruments at the very start, the micro-instruments. And Mr O’Brien and the Ginch Brothers⁵⁸ developed a micro-needle holder. It was all in their heads and when one of them died they didn’t have the die[-cast] for it. And Bruce changed a few other instruments.

⁵⁶ The clamp was devised by Dr Peter Henderson and manufactured by the Melbourne firm, Micro-Fine Surgical Equipment.

⁵⁷ **Bruce Treagus** (b.1952) learned the skills of designing and making engines for model planes from his father, a tool-maker. Later, as a young adult, he started repairing and manufacturing instruments which led to work with Dr Harry Ross at the Royal Melbourne Hospital who developed the kidney preservation fluid known as Ross Perfusion Fluid. These experiences led to him learning to become a perfusionist, which entailed running the Heart Lung Machine for Open Heart Surgery and associated limb perfusion as required.

In 1977, he established a business repairing instruments and shortly afterwards was introduced to Bernie O’Brien who asked him if he could repair his microsurgical instruments. His first attempts were not entirely successful;

“...after a short phone conversation I went over to his rooms in Victoria Parade and picked them (his broken microsurgical instruments) up. His only instructions were ‘Take care of my Micro Vaness Scissors, and I would like your invoice for the repairs to be large and bold’.

“I didn’t know what to make of these instructions but off I went having never repaired a micro instrument before. Well I unclipped his scissors, and not knowing how delicate they were broke them in half at the hinge...After a night of being annoyed at myself for not showing the finesse required, I owned up to what had happened and replaced the instrument at my own expense.”

From there, his skills in Micro Instrument repairs grew, while also working as a perfusionist at St Vincent’s. *“I owe this to Bernie O’Brien and his trust in my capabilities at the time.”*

- Written communication, Bruce Treagus to Ann Westmore, April 2005

⁵⁸ **Ginch Brothers** were surgical instrument-makers located in Alma Rd. Caulfield

Talking about research, Mr O'Brien would always come in and look at what the Fellows were doing as they worked, and he would ask them what they were doing. Sometimes he'd say, 'No, I told you last week you were doing this and this. Why are you doing that?' He was always on the ball. He always knew what every person was supposed to be doing, no matter what.

I keep in touch with some of the ex-Fellows. I actually went to the States for two years with a Fellow that I met through here who offered me a job over there. So I guess indirectly we trained a lot of people in the States in that way.

And when the science started there was a tiny little dark room where I used to develop x-rays. And the biochemists would have to do their biochemistry in a room out the back. But Mr O'Brien always aimed to develop one building where we would do more and there would be more people.

Ann Westmore: Did he set assignments, a small piece of research, for the Fellows to complete over a period of time?

Sue McKay: Yes, a small piece of research.

Ann Westmore: Can one of you paint me a picture of what that was like, as a scientist or a Fellow?

Wayne Morrison: Well we should ask the scientists. But perhaps I could just give an introduction because when I was there – I'm not a scientist by training at all and I'm sure the scientists are fully aware of our limitations. But, in a sense, the early microsurgery was a technique which was being developed, rather than a science. So it demanded experience in being able to technically join up small blood vessels to keep tissues alive.

The early research, in inverted commas, was transferring bits of tissue from one place to another place, based on the joining up of blood vessels. If these blood vessels clotted off or were blocked off [the tissue could not be transferred, and], as Jim has said, his role was to prevent the spasm or to prevent clotting. They were the kind of research interests that microsurgeons had. The other area was known as reperfusion injury. After a piece of tissue is separated from the body and the blood flow stops, obviously it's going to die. If you reconnect it, perhaps strangely you actually add further injury to that tissue. Because adding oxygen - which brings with it blood vessels and blood cells and the like, which are really designed to attack damaged tissue to protect the rest of the organism from that damage - will further damage the injured part, perhaps critically. So it was this protection from the reperfusion injury with which we were concerned.

A lot of our research was anatomically based. Every Wednesday morning for years, we'd go to the City Morgue, taking the research Fellows down there with us, and we'd dissect

out flaps.⁵⁹ And we'd do similar things on animals and transplant bits of tissue. But it was relatively soft science. And I think that's why surgery at that period was having difficulty competing with the medical institutes because we weren't seen as really competitive scientists. It wasn't until Ken Knight was appointed as our first scientist, and Michael Hickey⁶⁰ our pride and joy – our first PhD student, that we became credible as a true scientific field. Again, Bernard O'Brien was aware of that as was Dick Bennett and this gave us much more credibility.

Building research capacity

Ken Knight⁶¹: Perhaps I could take over from there. In his wisdom, Bernie O'Brien set up a laboratory with two streams of science. He appointed Margaret Niall⁶² as a biochemist and Gemma Nightingale⁶³ as a histopathologist back in the mid-1970s. So

⁵⁹ By the mid-1970s, members of the Microsurgery Research Unit were studying the transfer of flaps of tissue including fingers, toes, muscle, joints, corneas and bone. Of 100 digits replanted to the end of 1975, 70% survived, with the best results achieved in children needing replantation of a thumb or index finger

⁶⁰ **Michael Hickey** BSc(Hons) PhD (b.1964) trained in science at the University of Melbourne before undertaking his PhD at BOBIM and the University of Melbourne under the supervision of Professor John Hurley. From 1996 to 1999 he was a Postdoctoral Fellow at the University of Calgary in Canada and from 2000 to 2001 he was Senior Research Officer at the Baker Institute. In 2001 he moved to the Monash University Department of Medicine at the Monash Medical Centre to continue his research career.

- Personal communication, Michael Hickey to Ann Westmore, March 2004

⁶¹ **Kenneth Ross Knight** BSc(Hons) PhD FACB FAACB FRCPath (b.1949) studied science at Monash University before completing a PhD in the biochemistry of arthritis. He subsequently gained further research experience in extracellular matrix biology at the Bristol Royal Infirmary; University College, Cardiff; and the University of Manchester before returning to Melbourne and joining BOBIM in April 1982, where he subsequently conducted microvascular and tissue engineering research. In 1992 he was appointed Principal Scientist in the Chemical Pathology Department at St Vincent's. Three years later, he resumed full-time research at BOBIM. He has written a short (unpublished) history of research at BOBIM from 1975 to 1994

- Written communication, Ken Knight to Ann Westmore, May 2005

⁶² **Margaret ('Maggie') Niall** MSc MPH RD APD (b.1939) worked to fulfill Bernard O'Brien's aim of "getting some science into the microsurgery" at St Vincent's, 1977-81. A Master of Science graduate in physiology and biochemistry from the University of Melbourne, she worked at the Royal Children's Hospital under Professor Don Cheek and in the hospital's paediatric surgery department, with a research focus on growth and development. On joining the St Vincent's microsurgery team in 1977 she was involved in a number of research projects involving growth factors in wound healing and nerve regeneration, and the effects of prostaglandins in vascular reperfusion. She carried out this research in the St Vincent's Hospital biochemical research laboratories established by Dr Pehr Edman and run by Dr Frank Morgan.

She left the microsurgery unit to complete a clinical dietetics course, and worked as a research dietitian with Professor Kerin O'Dea and subsequently as Nutrition Manager at Cabrini Hospital for 5 years. In the late 1980s, she trained in Public Health at UC Berkeley and subsequently set up the Nutrition course at Monash Medical School.

- Personal communication, Maggie Niall to Ann Westmore, May 2005

⁶³ **Mary Gemma ('Gemma') Nightingale** MSc BA DipVisArts (b.1950) undertook training in the University of Melbourne Pathology Department under John Hurley before working as a Research Officer in the Microsurgical Research Unit, 1976-83. She conducted experimental microsurgery as well as scanning electron microscopy on tissue anastomosis in Professor Crock's Department at the Eye and Ear Hospital. Her enduring memories of Mr O'Brien are of his short-sightedness and tendency to have lots of pieces of paper in his pockets. "I found him wonderful to work with; he didn't interfere and left me to do my own thing." After leaving the Unit she worked for a time at the Children's Hospital before following a career in

that was the first scientific presence. Margaret Niall is actually Hugh Niall's wife. Hugh is a very high profile scientist around Melbourne and internationally.⁶⁴ Gemma Nightingale could also tell many stories from the past.

I applied for a job as a biochemist in 1982 and I had a phone interview while I was working in a lab in Manchester, UK. And I was struck by the enthusiasm of this so-called Mr O'Brien who was interviewing me. It sounded like a good place and I was quite keen to get back to Melbourne where I'd done all my early work – I'd done my PhD at Monash.

When I arrived I was struck with this little ante-room which was the so-called well-equipped biochemistry laboratory. (laughter) That was what we had to start off with. I had to learn about things called flaps which I'd never heard of, but all the literature I was sent talked about ischaemia and reperfusion injury in skin flaps. So once I took that on board, I then consulted two key scientists – Jack Martin⁶⁵ who was a friend of Bernie's out at the Repat⁶⁶ who knew all about the developing field of what prostaglandins were and how they functioned in blood vessels. And I also consulted with Jim Angus who knew all the drugs which manipulated these pathways. I followed on from Maggie Niall so I was actually the third scientist, and I've been associated with the place continuously – apart from a period in pathology - ever since.

As the biochemistry stream developed it spread out into physiology and pharmacology. You had to be a multi-disciplinary scientist to work in this place. There were so few of us that you really had to be a master in quite a few different fields. On the other side, Geraldine Mitchell⁶⁷ was appointed histopathologist in the same year, 1982, as I was and

fine art based in Lancefield. As a result of her work in microsurgery she says much of her sculpture and painting has a pronounced vascular look.

- Personal communication Gemma Nightingale to Ann Westmore, June 2005

⁶⁴ **Hugh Niall** (b.1937) MD, FRCP trained in medicine at the University of Melbourne before pursuing a career in medical research in the United States and Australia. Since mid-2003 he has been CEO of the National Stem Cell Centre at Monash University

⁶⁵ **Thomas John ('Jack') Martin** AO, MD DSc FRACP FRCPA (b.1937) has long-standing research interests in metabolic bone diseases, bone and tumour cell biology and the mechanisms and actions of hormones secreted by cancers that damage the skeleton. He was appointed the University of Melbourne Foundation Professor of Medicine at the Repatriation General Hospital in 1977 and joined the consultative scientific panel overseeing microsurgery at St Vincent's in 1985. In 1987 he was appointed Professor of Medicine at St Vincent's and he was Director of the St Vincent's Institute of Medical Research, 1988-2002. See *Who's Who in Australia 1988* and <http://www.svimr.unimelb.edu.au/tjmbiog.htm>

⁶⁶ Repatriation General Hospital, Heibelberg

⁶⁷ **Geraldine Mitchell** MSc PhD DipEd (b.1953) specialised in morphology at the University of Melbourne before joining the Microsurgical Research Unit in 1982. She conducted surgical experiments and investigated damage to large blood vessels in trauma-related injuries and vascular grafting procedures, and consequent repair mechanisms using light microscopy as well as scanning and transmission electron microscopy. At the time of the Witness seminar, she was a Senior Research Scientist in BOBIM's Vascular Biology Group with a particular interest in new blood vessel growth as applied in tissue engineering projects. One of her first research publications was Mitchell GM, Frykman GK et al (1986), "The nature and extent of histopathological injury in human avulsed arteries and veins and in experimentally avulsed monkey arteries", *Plastic and Reconstructive Surgery*, 78, pp. 801-810

- Personal communication, Geraldine Mitchell to Ann Westmore, July 2005

she's still working here. And through the histopathology side, people like Michael [Hickey] and Aurora Messina⁶⁸ were appointed – they're some of the key senior scientist who are still employed here and many of them have stayed a very long time.

I'm also familiar with the green card. That was one thing that I always dreaded. I knew when I wanted to escape at about a quarter to six – I worked on the second floor and Bernie was in the main office on the first floor – if I spotted him with the green card in his hand I made a quick exit down the stairwell.

Bernie was very much a workaholic and we soon got into this grant-writing that you've heard so much about. In one particular year I must have sent out 50 to 60 applications to various charitable trusts around town. I suppose by weight of numbers we were sufficiently successful to employ increasing numbers of people in the laboratory. We also had a very good success rate with the NHMRC for a surgical research place.

I'll always recall one particular NHMRC interview when Mr O'Brien took along his text book of reconstructive microsurgery. I think it was the twentieth year and he announced to the NHMRC panel, 'Right, this is 20 years of continuous NHMRC funding'. During that same interview he was queried as to why he had his work laid down as 40 hours per week for research when that accounted for a full working week. His response to the interview panel was, 'Actually, I work 100 hours per week, forty hours on research and sixty hours on surgery.' That was no mean boast and it was a pretty true indication of what he was working, as Joan [O'Brien] well knows.

But the thing that struck me immediately was an air of familiarity about my workplace. Having just arrived back in Melbourne from a job in Manchester, UK, I discovered that Joan [O'Brien] had lived most of her life in the same city. When first introduced to Allan MacLeod I noticed a strong likeness to my former maths teacher at school, Jack MacLeod, who turned out to be his brother. At that time, Bernie's chief plastic surgery theatre nurse in St Vincent's Private Hospital was Beverly Gabb, my second cousin. Furthermore, Bernie's medical indemnity lawyer and teammate in the University of Melbourne football team was John Ball, my mother's cousin and our family's lawyer. With all of those familiar faces, I was immediately made to feel welcome as part of the "family". Perhaps I'll leave it at that.

Michael Hickey: My association began in 1987. I think it's fair to say that the research component was going through a reasonably active growth phase and there were more grants coming on line and I was employed as a research assistant through one of those grants. One of the important things that I want to make sure is not overlooked is the input of a certain individual who came on board at the same time. John Hurley was Professor of Pathology at Melbourne University and he retired in 1986, I think.⁶⁹ I don't know how

⁶⁸ **Aurora Messina** BSc PhD (b.1960) started work at BOBIM as a Research Officer. At the time of the Witness seminar she was a Research Fellow part-time

- Personal communication, Aurora Messina to Ann Westmore, June 2005

⁶⁹ **John Hurley** PhD MD FRCPA FRCP (1921-2000) brought a knowledge of fluid loss and tissue swelling in inflamed and injured small blood vessels to the Microsurgery Research Centre when he joined it as a

it happened but John was brought on board by Bernie and probably there's a story there. John Hurley was a very, very clear-minded straight-thinking researcher, as well as being a pathologist. In essence he was a teacher really. He would come three half days a week to help the research side of things and to have input into all the research that was being done. He had a huge input in making the research side of things a success.

I started off as a research assistant and when a project became available that was suitable for a PhD, John Hurley and Geraldine Mitchell became my PhD supervisors. It was an indication that the research effort was growing, the success rate in terms of getting funding was starting to snowball at that stage. We were in the old building for many years and through the funding that we've talked about, we were able to knock that old building down and regenerate this building and we spent a year or 18 months over in the Department of Surgery. I've got memories of packing up and becoming a removalist at one end and taking it all over to the Department of Surgery, and doing the same thing when the brand new building was put up. I think Sue [McKay] and Liliana [Pepe] would probably have positive memories of the transition into the nice new [operating] theatres as well.

My PhD project was on ischaemia reperfusion injury which Wayne has spoken about already. At the same time I was involved in research projects looking at prefabrication of flaps, knee joint transplantation, all sorts of broad things. So we really did need a handle on all sorts of research issues which gave us a broad background and knowledge of things. This made us a little unusual compared to other scientists in that we were not so focused on one issue.

I'll finish by concurring with Sue about her memories of Mr O'Brien. It always amazed me how he could remember so much. You'd think, 'He won't remember that I was supposed to be doing that.' But he never forgot a single thing and I was always amazed at his capacity for that sort of thing.

part-time consultant pathologist in 1987. He had training in medicine at the University of Melbourne, graduating in 1944, and spent a year as a junior resident at the Royal Melbourne Hospital (RMH) before joining the Royal Australian Air Force (RAAF). After serving in North Borneo from 1945-47, he returned to Australia and was appointed Surgical Assistant at the RMH in 1948. But he was forced to abandon plans of a surgical career when he experienced a recurrence of pulmonary tuberculosis acquired during his time in the RAAF. He decided instead to pursue a career in pathology and served as Assistant Pathologist at the RMH from 1950-52, at the same time accepting a research position in the University of Melbourne Department of Pathology.

Having recovered from his illness, he was appointed Stewart Lecturer in Pathology at the University in 1955, Senior Researcher in 1957, and Reader in 1965. In the meantime he gained experience in experimental pathology in Britain as the 1959-60 Nuffield Travelling Fellow, working under Sir Roy Cameron at University College Hospital, London. It was at this time that he developed his interest in acute inflammation and became an international authority on normal and injured small blood vessels. In 1981, he was appointed Professor of Pathology at the University of Melbourne, and the following year his teaching skills were recognised when he was appointed Assistant Dean (Preclinical) in the Faculty of Medicine. He retired from his university appointments in 1986. *11th Annual Report of the Microsurgery Research Centre at St Vincent's Hospital, 1987, p 3*

Ken Knight: One other feature of Bernie's approach. He was a great stickler for perfection in papers. I think he's the only person I've ever known that you had to go through ten drafts of any one paper before it was in the right form to send off to a journal. He certainly had great attention to detail and you could absolutely guarantee that if you were discussing the twenty-third page of the fifth draft he'd pick it up on the green card. That was where you'd continue the next conversation.

Ann Westmore: It's very noticeable in the annual reports of the late 1980s that he starts to say that the scientific side, the research side, is moving into new territory. It's as if there's a real injection of energy into that side of things that leads him to speak in very positive ways. Is this indicative of a John Hurley and a Jim Angus influence?

Laurie Muir: It was a move to take it beyond the hand, wasn't it? A move to get out into all the tissue issues.

Wayne Morrison: Yes, I think it was. Microsurgery was the basis for doing many new things that moved beyond the traditional plastic surgery repertoire. It really allowed you to think creatively in terms of being able to take tissues from any part of the body and use them to match what was missing. So it really allowed you to apply art as well as science, and that's what's been attractive, I think, to many of us.

As regards the new developments, Michael mentioned prefabrication, which was really the further development of your ability to design a piece of tissue to be more appropriate to what you're trying to reconstruct. We were certainly world leaders at that time and our publications attest to that clinically.⁷⁰ In those days, you could experiment on humans more easily than animals. We had some spectacular cases of what was called prefabrication of implanting a blood vessel into the right layer of the skin, so now you create a new design in a sense that allows you then to transplant that tissue subsequently to another site based on the blood vessel that you transplanted. So that in itself generated a new area of research because this was what's now known as angiogenesis, or new blood vessel formation, and to us that was pretty exciting.⁷¹

The thing I found exciting about this whole enterprise was that microsurgery was a microcosm of the big picture. What we were doing parallels what the big research centres [were doing]. Angiogenesis is all to do with, firstly, embryology which is now all stem cell research. Angiogenesis is that process that happens after a heart attack or stroke where the body tries to regenerate a new blood vessel after the vessel has blocked. So here we are doing similar research to what Jim has mentioned [involving] pharmacology and coronary artery disease. We're all in the same game. So you realise this has a lot of application beyond the minor area of microsurgery.

⁷⁰ See Morrison WA, Dvir E et al (1990), "Prefabrication of thin transferable axial-pattern skin flaps: An experimental study in rabbits", *British Journal of Plastic Surgery*, 43, pp 645-654 and Morrison WA, Penington AJ et al (1997), "Clinical applications and technical limitations of prefabricated flaps", *Plastic & Reconstructive Surgery*, 99, 378-385

⁷¹ See Lokmic Z, Idrizi R et al (2004), "Vascularization of engineered constructs" in *Encyclopedia of Biomaterials and Biomedical Engineering*, Marcel Dekker, New York, pp 1750-1759

On the one hand, you feel rather inferior because [you think], ‘Hang on, we can’t be competitive with these people who are out there’. And yet it makes it such a broad area of interest, it made us become competitive. We realised that previously we were puddling around in relatively soft science. Now we have to be competitive. That’s been very gratifying in recent years. In fact, we obtained the highest NHMRC grant for Melbourne University.⁷² We’re obviously competitive with every other research institute in Victoria. So it’s rewarding that we have, in a sense, come to that level where we can be seen as not just a boutique area which we capitalised on in the early years and benefited from. Now we’re out in the big ocean, swimming around. It’s more threatening but it’s actually more exciting because our credibility is up there. But big challenges are still coming.

James Angus: I guess collaboration is the other thing now. You can’t do it all in house. There are skills that you can seek and the smart ones know in that network to all help each other.

Wayne Morrison: Yes, perhaps, if I might mention, a new area of research we are doing is tissue engineering.⁷³ Again, it’s an area that has developed logically from microsurgery because tissue engineering in most spheres is done in the laboratory at the moment - in dishes where you’re talking about a very thin layer of cells growing that don’t need much nourishment. If you actually try to transplant those into the body, they need a circulation or a vascularisation. And again, with our background in plastic surgery and microsurgery, it’s the blood vessels that keep things alive. So here we are poised to be big players in three dimensional tissue engineering. Then of course you’re talking about stem cells and all the other exciting things that can be used to attract vital research funding from the public and from business because it’s very modern in a sense.

Ken Knight: John Hurley was a world expert in wound healing and I think that was something which leant itself to research in microsurgery and plastic surgery where the idea was to search for scarless healing. Through the 1990s when John Hurley was most active in the research laboratory, that was one of the fields he was pursuing, together with Michael [Hickey] and others.

I guess with these collaborations we’ve had over the period of time we’ve also been engaged in research fields such as neuroscience. When Aurora Messina arrived she had expertise in that area so we spent quite a lot of time looking at nerve repair and that obviously has direct application to hand surgery. So there have been a number of different fields that have all come together. And the lessons learned from wound healing now have great application in tissue engineering, - many of the same principles apply.

⁷² The grant for a project titled “Generation of vascularised bioengineered soft tissue” was awarded for 2001 to 2003 at \$147,500 per annum. The Chief Investigators were Wayne Morrison, Ken Knight, Tony Penington and Aurora Messina

⁷³ For early research on this topic at BOBIM see Tanaka Y, Tsutsumi A et al (2000), “Generation of an autologous tissue (matrix) flap by combining an arteriovenous shunt loop with artificial skin in rats: preliminary report”, *British Journal of Plastic Surgery*, 53, pp 51-57 and Mian R, Morrison WA et al (2000), “Formation of new tissue from an arteriovenous loop in the absence of added extracellular matrix,”, *Tissue Engineering*, 6, pp 595-603

Ann Westmore: Is surgery poised to move into a whole new domain, for example with the stem cell work, and is that reflected at the NHMRC level by increasing interest in making sure that Australia can make that jump?

Wayne Morrison: Yes, funding is a topical thing. You have to be, in a sense, in the trend areas. Unless you're in those you're not going to be a winner. So you have to be opportunistic all along. I should say that St Vincent's Hospital is very much a partner of the O'Brien Institute and shouldn't be seen as a separate thing. Our profile has been influenced very much by our access to patients who, unfortunately, sustain these horrendous injuries. They [the patients] have become, in many cases, great friends and ambassadors for us. So it's a partnership between the hospital and the research centre. It's a great asset for all research institutes if they can have a link with a teaching hospital. This is what is very fortunate for surgery, in that it's what they call translational research where you can quickly transfer the research from the laboratory into patient care. That can be more difficult for bigger institutes which are essentially separate from hospitals.

Nurturing relationships

Ann Westmore: How is the relationship with the Hospital nurtured and maintained?

Wayne Morrison: Others can speak much more about this. From my personal point of view, I've had a very good association with the Hospital. I know there have been some rocky times in terms of competitive seeking for funding and so forth.

Ann Westmore: Are Hospital people represented on your Board and vice-versa?

Wayne Morrison: Yes, the CEO of the Hospital is an essential member of our Board.

Laurence Muir: It's very similar to the Baker/Alfred situation. The presence of the teaching hospital has been vital to the work of the Baker and it works very well.

Wayne Morrison: Where difficulties may arise is when there are many pure scientists in an institute who have no clinical association with the hospital and who work in a kind of isolation from clinical realities. It has less to do with the physical location and more to do with a mental dislocation.

James Angus: A big institute can have a clinical research unit but it may be much smaller than the basic research component.

Sue McKay⁷⁴: St Vincent's supports the research of the Institute indirectly in that many of the staff members working in the [operating] theatres are paid by the Hospital, and

⁷⁴ **Sue McKay** (b.1954) completed Certificates in Applied Science (Animal Technician and Laboratory Technician) in the early 1970s before joining the Experimental Medical and Surgical Unit (EMSU) at St Vincent's in 1973. From 1979-1985 she worked in Houston, Texas, teaching microsurgery techniques and assisting with experimental surgery. She returned to St Vincent's in the mid-1980s and became Manager of the EMSU

90% of our work is microsurgical work. The Foundation would have to come up with a lot of money if they wanted to pay for all our staff.

Ann Westmore: Has that always been the case?

Sue McKay: Yes, We've always been employed by the Hospital.

Ann Westmore: Are you taking work that has been done in the laboratory into the operating theatre?

Sue McKay: I'm a technician, an assistant. I have no medical qualifications. But we do the research side of it. So when all these Fellows come, they actually come to our department as well as spending time with researchers and with Wayne on the clinical side of it. So in a very big indirect way, the Hospital is putting in, supporting what Mr O'Brien wanted from the very start and the ongoing objectives.

Ken Knight: I think you get a much greater sense of the clinical application of the work you do. For example in prefabrication that Michael was talking about, there are clear examples now of how that is used in patients, adopting techniques developed in the laboratory. Some of the drugs that we used, for example urokinase and tissue plasminogen activator drugs that break down blood clots were used in that classical case of scalp replantation [referred to earlier].⁷⁵ We had done experiments in the laboratory beforehand looking at the use of some of those drugs in animal experimental models. That contrasts with research I was doing in the past on arthritis where it was less clear how that research was related to clinical practice.

Michael Hickey: That's fairly unique for people who have a pure science background. An example that comes to mind is a patient called Trevor who had dry eyes. He came in for an operation where a salivary gland was transferred to his eye.⁷⁶ I was involved in the research but it's that aspect [of doing research that rapidly translates into clinical application] that hits home.

Ann Westmore: So would he have come in here to have a look at your laboratory?

Michael Hickey: I think Trevor came in to the Institute as a guest to attend a function. And so, to meet a patient with this problem and to talk to him brought home that it was a real issue we were dealing with.

- Personal communication, Sue McKay to Ann Westmore, March 2004

⁷⁵ See Knight KR, Kawabata H et al (1991), "Prostacyclin and prostanoid modifiers aid ischemic skin flap survival", *Journal of Surgical Research*, 50, pp 119-123 and Knight KE, Lepore DA, O'Brien BMcC (1991), "Interrelationships between prostanoids and skin flap survival: a review", *Prostaglandins, leukotrienes, and essential fatty acids*, 44, pp 195-200

⁷⁶ See Kumar PAV, MacLeod AM et al (1990), "Microvascular submaxillary gland transfer for the management of xerophthalmia – an experimental study", *British Journal of Plastic Surgery*, 43, pp 431-436 and Kumar PA, Hickey MJ et al (1991), "Long term results of submandibular gland transfer for the management of xerophthalmia", *British Journal of Plastic Surgery*, 44, pp 506-508

Ann Westmore: I wonder if the smallness of the Institute relative to some others is a benefit in cementing its relationship with the Hospital, or does the texture of the relationship have more to do with the interaction between individuals?

Jim Angus: As a non-Melbourne person – my background is that I'm from Sydney although I worked here at the Baker - I think everybody from both sides has to work very hard at these relationships, all the time. Nothing is a given. You have to keep bringing them into your confidence, talking to them - communicating, bringing us across to them and them to us, and doing things together. Then, there's no question. And, if there is, get on the telephone and talk it through. Some Institutes are under enormous pressure because they want to expand and can't, because of other pressures on their associated hospitals. Just because there's a pragmatic problem, there's a clash and there's a danger that the broader vision is lost. We're stewards of a great tradition here, a tradition that Melbourne values.

Phil Spry-Bailey: Perhaps I can make a comment here, being on the [Hospital] Board here and the national [Sisters of Charity] Board. One of the issues all the time was looking at the two dominant campuses, one was in Melbourne and the other in Sydney with the latter associated with the Garvan, the Victor Chang, and one or two other institutes there, and the public hospital and a private hospital as well. But the issue was always in getting the hospital, the teaching and the research together. And the issues between the parts were often, how do you build up the relationship if there are splits between them? In fact, in the end, the whole of the Sydney research campus is seen as one when it goes for its grants. In fact, the Sydney institutes [I've referred to] are very different, and individualistic. But you've got to be seen to be together. And the other part was, are we making sure that the training of staff is coming on.

Then, finally, there's the finance. And that's where the issues start to get hard, because there's never enough money to go around. I can remember when this building was being built and, I think, we [St Vincent's] said we would provide either \$250,000 or \$350,000. There was an issue about who would fund any over-run. The system runs so lean, you don't have another \$100,000 you can pull out of somewhere. And being a not-for-profit group, the Sisters of Charity – I always thought they had a pot of gold until I was on the national Board and found it was no different from elsewhere – are running at the knife-edge. So that's why you get some of the conflict building. And everyone wants to proceed, there's no question of that, but how are you going to do it? Of course, the institute heads always want to have it now. You'd like to provide that, but there is a question of how far you can stretch yourself and still remain solvent. And then it comes to the national, and the Board, view which is that, at the end of the day, we can't lose the lot or we can't lose a big part of it. The campuses are absolutely essential. Often you have very brilliant and wonderful people doing things who just can't understand why you can't support them more. Given all of that, there's something different about the St Vincent's campuses. In the end, the [operating] theatres and the competent staff and their dedication has always impressed me as well beyond the call of duty – and Bernard O'Brien was a good example.

Laurie Muir: And the cooperation here is essential. We have built an asset on the property of the Sisters of Charity. We appreciate this. Initially I think we had a 25 year lease and maybe that's been extended. In going to outside donors to fund this, it was very awkward to explain this asset that we didn't have control of, really, but there's been a good element of understanding that has worked. We have remained very cooperative with the Sisters of Charity who have a beautiful asset and a worldwide reputation which they might not otherwise have had. I hope the partnership can continue between the Foundation – the fund-raiser – and the Sisters of Charity.

One limitation we always face when we seek Commonwealth funding is that approximately 70% of Australia's good medical research work is done here in Victoria. We're all for seeing the research institutes in other states build up. But when it comes to a Federal system and a politician is seeking re-election, we quite often hear the view that the other states should be funded preferentially.

Geoff Renton: I think too, from my ten years here, some of the animosity if you wish on the campus has occurred due to the change in the way the Institute has worked. It was based on the English model where knowledge was published and made available to the world and the clinical work was immediately transferred to the patient. But in the last decade, largely because of government policy, the Hospital and University have become more like private enterprises focused on the bottom line. As a research institute we used to get quite good funding both from the Hospital and the University, and suddenly that all dried up. Next, we were pushed into having to patent inventions and enter a whole different area. All of that pressure, plus the need to expand – we went from free flaps to tissue engineering – being a small, unique, surgical research institute put a lot of pressure and strain on the Institute. In some affiliated organisations, we had different types of personalities coming in who I don't think understood the types of work that we were doing.

When I first arrived here I felt there was a family atmosphere in the Institute – as Ken said before – and in the Hospital too – and then all these other outside pressures came in that changed the environment. I'd like to think that things have settled down, particularly in the last couple of years. We've moved into the tissue engineering area, and the blood supply loop with the chamber is unique in the world, and the only thing that will hold us back is funding. If we can work in a cooperative sense with the University and the Hospital, we can again become a platform to take these new initiatives to the world.

Raising funds for research and development

Ann Westmore: Fundraising would appear to be a safety valve that has allowed the Institute to continue to grow and develop when other funding has become less available. I wonder if that has always been the case, and how the fundraising effort has changed over the decades?

Tony Charlton: First, I'd like to say how marvelous it is to be part of this forum. I've learnt things that I've never known before about the operation of the place despite my

years here. I've found it a very productive time. Fund-raising is about money and the irony of my involvement in fund-raising is that I've never had any. (laughter)

But because I was taken under the wing of people like Sir Laurence, who's been a loyal and great supporter over many years, I learnt some of the ways of doing it. Here, we embarked on many plans to do just that. We went through the gamut of designing letter heads, to getting letters out that don't bring you much joy, to running events, to doing videos etcetera etcetera to promote the excellence of this Institute.

I picked up the phone one day in the late '70s and it was Lindsay Fox⁷⁷.

"Hi Tone,"

"Oh, Lindsay."

"What are you doing?"

"Just about to go to lunch."

"Come into town." He had Bernie at the Athenaeum Club⁷⁸. So we sat down there and Lindsay pronounced what I ought to be doing to help the Microsurgery Foundation.

Bernie went into overdrive with that infectious enthusiasm that we all identify and so that's how I became associated with it.

Lindsay, I remember, ran this big dinner at what was then the Regent [Hotel] and is now the Sofitel.⁷⁹ True to Lindsay's style, this was quite some event. The most notable thing about it, other than the good camaraderie, was that Lindsay had a Mercedes Benz that I think cost \$100,000, and that somebody bought for \$300,000, such was Lindsay's persuasion. That was the style of events, several of which we ran. One of the big nights was a dinner at the Hilton Hotel because Bernie had out here Joseph E. Murray, Nobel prize-winner in plastic and reconstructive surgery.⁸⁰ That was a big night and we invited quite a few famous Australians - athletes and academics. Bernie was tickled pink about it all. One of the great joys for me was that there was a band playing and, as Bernie walked in with the guest of honour, everyone stood and cheered. He really enjoyed that. It was a great night. But there have been lots of things to commend this place over many years, so that's why it shall always be close to my heart. The constant pressure seems unjust when such excellent work occurs here. But many would be trumpeting the same concern - needing to get money to keep these places going. You'd like to have a money machine to print it out.

⁷⁷ **Lindsay Edward Fox** AO (b.1937) started the Linfox Group with one truck in 1965. He was Founder and Non-Executive Chairman of Fox Group Holdings Pty Ltd. which, by 1988, employed 2500 people. He has been a board member of numerous companies and appeals, and chairman of many committees. He was Victorian of the Year in 1993. See *Who's Who in Australia 2000*

⁷⁸ One of Melbourne's oldest private clubs

⁷⁹ The dinner dance was held in December 1984 and raised \$160,000 towards the estimated \$1 million needed to build and maintain the new building. The guest speaker, John Cain, Premier of Victoria, remarked that "One million dollars is easy to say, but try raising it!" During the evening, the Premier presented a cheque for \$100,000 on behalf of the Victorian Government which enabled the Foundation to finalise payment of the building

⁸⁰ **Joseph E. Murray** MD FACS, a Boston plastic and reconstructive surgeon, was awarded the Nobel Prize in Medicine in 1990 for work on kidney transplantation. He was an official guest at the 21st anniversary celebrations of the Foundation in 1991

Laurie Muir: Tony and I were doing the same thing as we were doing for Bernard at the Alfred, in my case the Baker, and at the Anti-Cancer Council [of Victoria] where we both served. And Bernie used to get very short, 'Don't you give them any of your time. You're mine.' (laughter)

Tony Charlton: I've always been involved in fund-raising. It's been a passing interest ever since I ran a function to complement an appeal called Operation Gratitude in about 1950 to help ex-servicemen who, not long after the war, were having difficulties. We had this big event at Princes Park and Norman Von Nida, who was quite a force in his time, hit golf shots from one end of the ground to the other through the goal posts. Now, the Von didn't have very good long vision and these golf shots were ricocheting off the terraces beyond the goal posts, and how people didn't end up here [in hospital], I don't know.

The *piece de resistance* was, and I don't know how we achieved this, but I rang the New Zealand owner of Rising Fast, the pride of the Australian turf at the time and arguably one of the finest horses ever. The owner agreed to parade the horse – we had 20,000 people attend. Just as we off-loaded Rising Fast and got him onto the oval with a strapper there proudly walking him across Princes Park, a band strikes up and starts to march towards the horse. Well! I don't know how I survived that because I was history. He was lifting the strapper at least two yards off the ground. He was set to bolt. He would have gone clean over the outer retaining wall, had he gotten away. So we stopped the band in full parade. That doesn't happen too often.

But that introduced me to Bill Kilpatrick because he had an interest in that [event] and helped us. And I subsequently met him again in the early 1950s when the first doorknock appeal was held in Australia. It was for cancer, it was new and it had huge publicity, and the Chief Executive running it became a politician, Don Chipp. And we ran that and I remember *The Herald* front page was "Money in Cascades". People took to it but now, of course, it's been over-worked. So we've got to come up with an idea like that, a new idea that produces "money in cascades" so that these people can keep doing the fantastic things they do.

Laurie Muir: Tony and I tried to start a rose day at Werribee Park but it didn't take off. But we picked it up in another way – the Daffodil Day – that has really taken off for the Anti-Cancer Council. And the other one, again for the Anti-Cancer Council, is Relay for Life. The gentleman who thought of this, an American, who lost a patient, was determined to raise more money for cancer research, went to an oval in his own state and ran for 24 hours and raised US\$30,000 or something. Today, with events like that on the one day all over America, they're looking at something like \$300 million raised per annum. And ours has taken off, it's gone national last year, and I think we're looking at raising over a million dollars. What Tony has illustrated is that he hasn't just raised funds for the Institute, he's raised awareness. That's the other half of our job, always.

Dick Bennett: All of this indicates the great value of networking. Great people attract other great people. They recruit them and they form a great cause. They have a lot of

energy and ideas and they get things done. It seems to me to be all associated with, and greatly promoted by, good networking.

Wayne Morrison: I'd like to take this opportunity to acknowledge what has been the backbone of this place in terms of the fundraising. These people who have just spoken have not only raised money for us, but for institutes all over Australia. The generosity of the donors who get bled time and time again is unbelievable. I just don't know how they cope with being harassed. But without that, so many institutes would be destitute.

I had sleepless nights, time and time again, after taking on the specter that Bernard left me of raising all this money. Now it's up to \$3 million a year that this place invests in research. If it were up to me to physically fly the banner, we'd all be out of business. It's just extraordinary the energy and persistence that you people have. I'm just so grateful for that, and can't repay you enough.

Laurie Muir: I'd like to make special mention of one of my successors, Ron Walker. He's been quite extraordinary in fund-raising. He can stand over Premiers and Prime Ministers like no-one else I've ever known. He's so persuasive and doesn't take no for an answer. And he puts our case so well that he and the current group have raised more money than we ever thought possible.

Lunch

The microsurgeon and the law

Ann Westmore: One person who we haven't heard from is Barry O'Callaghan, who has been involved with the institute for many years.

Barry O'Callaghan: I'm a lawyer and I've been associated with the O'Brien family, the Microsurgery Foundation and the Bernard O'Brien Institute for 30 or 40 years. Over that time, I've acted with Bernard on many interesting exercises. I'm limited in what I can say because of the solicitor/client relationship that continues on permanently. I still regard Joan [O'Brien] as one of my clients. I remember at Bernard's funeral when John Connell delivered the eulogy – unfortunately John was not able to come today; he dropped me a note to wish everyone well – he spoke beautifully and movingly about Bernard and of course they knew each other for years. So if someone has a copy of John's notes, they would be well worth looking at.⁸¹

I came to act for Bernard and the Microsurgery Institute more generally after taking over from one of my former partners, John Lewis, who is still alive although he's not brilliantly well – he's well into his eighties now. I'm pretty sure that John Lewis would have come into it because of his association, and our firm's association, with Rob Monohan who was involved in the establishment of the Institute. The Foundation started for the purposes of having a separate legal entity to raise the funds, probably on the Board's recommendation. As a result of that Rob Monohan would have spoken to John

⁸¹ **John Connell's** eulogy was the basis of an Obituary for Bernard O'Brien published in the *16th Annual Report of the Microsurgery Research Centre, St Vincent's Hospital, 1991-93*, pp 10-11

Lewis and hence the Foundation emerged from that. When John Lewis retired from Corrs – or perhaps before that – I took over. That would be some time in the 1970s.

I knew constantly the tension between Bernard on the one hand and some of the senior [Hospital] management on the other. Bernard was such an enthusiastic person that he captured everyone's imagination. For lay people like me, this guy O'Brien at St Vincent's was fascinating because if your arm was chopped off he could stick it back together again and get it working. In a way he had an unfair advantage, because this just captured the public's imagination and with that came interest and funding. He was on a lay down *misere* that if he could tell the story he was going to win. And he did. He told it brilliantly and very successfully.

Ann Westmore: Presumably you were involved in the discussion with the Hospital about negotiating this entity that was going to have its independence yet still have a close working relationship with the Hospital? You must have seen some interesting dynamics.

Barry O'Callaghan: Well, you do [see some interesting dynamics]. On the one hand, the Hospital owns the site and needs to have overall control of what's happening on its campus. On the other, it can't be a dog in the manger because it knows, particularly in this case, that one of the driving forces internationally and with a highly justified reputation is Bernard himself. On the one hand, they might have wished to say, 'You get out of here, you'll do what you're told'. On the other, they knew very well they couldn't afford to let him go - he was just too valuable to the Hospital. So you had that continuing tension, but there were two sides to every question.

Laurie Muir: Ann, there are in the records, Barry's letters of advice at that time. I think it was in the early 1970s. This whole issue is summarised beautifully of the delicacy of dealing with the Sisters of Charity who owned the property and us, imposing our genius upon them. And all the publicity that went with Bernard's genius that caused ructions within the profession, more broadly than just at St Vincent's.

Ann Westmore: Yes, I imagine that issue of self-advertising would come into it. So how was that resolved? What advice did Barry give?

Laurie Muir: It made 'Weary' [Dunlop] and Bernard closer and closer friends. (laughter) They both had the same issue.

Barry O'Callaghan: It's interesting looking back on it now as a lawyer. Bernard really didn't have to tout, he just did it naturally, he was just so good in the field, he just captured everyone's imagination. Basically, people flocked to him. And I can well imagine fronting up to Dick Hamer's office. You didn't really have to tell the story much, it just happened. Any government's going to say, 'We're on a winner here, so we're going to back him'.

Ann Westmore: Well, what sort of advice would you give in that situation where you've got, say, a Medical Board, saying there's too much self-promotion?

Barry O’Callaghan: People usually regard lawyers as a necessary nuisance. So, on the one hand you can give the legal advice and leave it up to the client as to how he or she uses it. But the relationship I had with Bernard was such that [I might have said] ‘This is the legal advice. But from a practical point of view, you know you’re going to have to live with the hospital. You know you’re going to have to work alongside these people. They need you, but you also need them. So we’ve got to work out a way that doesn’t keep us at loggerheads because that’s going to divert you from what you do best.’ So one of the roles of a senior lawyer is to give both sides of the issue and, I guess, calm down the enthusiasm a bit to get the right decision. Mind you, you could never calm down Bernard’s enthusiasm for long. (laughter)

Ann Westmore: And how would he respond to that sort of advice?

Barry O’Callaghan: I couldn’t and wouldn’t mention that in public. (laughter)

Laurie Muir: He responded very well to suggestions that would save him complications. For example, all [media] references were to the Hospital’s Plastic Surgery Unit and the particular surgeon wasn’t mentioned. Maybe the rules have changed a bit now but the Foundation itself also publicised itself through these operations. So instead of Bernard’s name being used, which it probably should have been, it was either the St Vincent’s Unit or the Foundation that was referred to.

Barry O’Callaghan: They depersonalised it to an extent.

Sue McKay: I think if people saw the television interview with ‘Chopper’ Read⁸² they would have seen him refer to a prominent microsurgeon who’s died now but who had a wonderful institute. He [‘Chopper’] said this because Mr O’Brien had actually helped him when he was stabbed near the heart. He remembered that this man had done good for him.

Laurie Muir: We’ve come full circle, now, and the Institute is named after him and his name is not offending anyone.

Ann Westmore: Was the Foundation established principally as a way of raising funds?

Barry O’Callaghan: Tax deductions, in those days, death duty exemptions and stamp duty exemptions.

Ann Westmore: Could it not have been done through the [Hospital] Unit?

Laurie Muir: If you gave to a St Vincent’s Unit, the Board of St Vincent’s could do whatever they felt was their first priority with the money. It’s also why we seemed to be

⁸² **Mark “Chopper” Read** gained notoriety in the 1970s as a notorious hitman and self-confessed murderer. While serving a lengthy prison term he organised to have his ears cut off to facilitate his transfer from Pentridge Prison’s H Division.

competing for funds with St Vincent's at times, which caused quite a bit of anguish and we had to constantly straighten that one out, didn't we Phil?⁸³

Winning community and corporate support

Barry O'Callaghan: And we still do. With fund-raising organisations you see the so-called list of possible names going around. It's the same catchment all of the time. And one of the real problems is that Melbourne and Victoria is not a huge population, in many ways it's a small village on the world scene. It would be nice to think that we could all stop cutting each other's throats. Competition helps but it would be nice to think there was a limit because time and again you are going to the same names. If you cut some of that out, and we all worked towards the ultimate goal, it would be a lot easier. But particularly in areas of medicine and health, it'll never be any better because there's just not enough to go around.

Phil Spry-Bailey: If I could add a comment. For a time, I worked very hard to get all the fundraising to come together on the campus. Where it's at now, we have three [fund-raising entities]. We have the Institute, which has its Foundation; we have the Hospital, which has its Foundation; and there are some other groups that are looking for funding as well. To the extent that those three foundations don't cross each other too strongly, people will support the various parts. So there are possibly different catchment areas but, as you say, if you're looking at major donors you're probably going to come back to the same group.

Barry O'Callaghan: Of course, the institution as a whole attracts a lot of interest. But what really attracts people and major donations is one individual in whom a particular person or group of people have a real interest. Bernard was the perfect case. Donors want to make sure that he or she gets their donation and controls how it's used. That'll probably never be any different and it probably doesn't matter so long as you realise that you might lose out because a certain individual has a higher profile at the moment but that, over a lifetime, the wheel turns. You've just got to philosophically accept that.

Laurie Muir: In his own way, Wayne will actually attract support for special areas. Wayne is a most interesting person.

Ann Westmore: The fact that the Institute has so often had visits from State and Federal politicians and other luminaries, which is not so evident with some other organisations in the medical and clinical research area,⁸⁴ was that a strategic decision made at some point?

⁸³ The anguish stemmed from Bernard O'Brien's view:

"... that he had the right to apply for support from many philanthropic bodies (and succeed) in competition with the hospital which, for years, had been the recipient of donations on a regular basis from them. This led to recurrent friction between the Microsurgery Unit and the hospital authorities and particularly with the Chairman of the St Vincent's Advisory Council (nowadays the Board) 1965-88, Mr Grevor Molyneux and the CEO of the Hospital, Mr E.W. Radcliffe Grace."

- Personal communication, Keith Henderson to Ann Westmore, April 2005

⁸⁴ For example, Federal Health Minister, **Rex Hunt** visited the institute in 1976 and the following year, State Health Minister, **Vasey Houghton**, took the opportunity to visit the research unit and examine patients

Laurie Muir: Bernard's always been very keen about it, just as he so quickly got the Archbishop to open the building and things like that. He's insisted on a visit at state and federal level each year, pretty well. And Ron Walker is just as good at it. He has this ability to get the politician he wants. The last Minister for Health was here several times. We got a pretty good response from that. So, as Barry says, there is an immediacy about people coming to look at the work here.

And the press is the other great avenue. If we've got a sensational case, the fundraising is much easier. People like to associate with help, success and saving lives in that immediate way.

Geoff Renton: The Board here has been very unique. I've been involved in other public hospitals and other organisations for fund-raising. I've often said microsurgery should give up trying to apply for their NHMRC grants, on which they spend about twelve weeks every year. They (the medical and scientific staff) put in for about \$300,000 and get maybe \$50,000 at the end of the day. Well, with the Microsurgery Foundation Board and past Boards and Ron Walker's leadership, they are able to bring people into the organisation to show the work, and get very substantial donations and payments for research grants. That's something I have not seen in other organisations and that's fairly unique. I think it requires knowing the particular people and companies to target.

Ann Westmore: I think Liliana may have something to say about targeting members of Rotary Clubs.

Liliana Pepe⁸⁵: My association with the Institute began in 1979 when I started working in the research theatres and we had surgeons from all over the world who we trained to do the work. I remember Mr O'Brien as having a great personality, ambitious, and always on the ball. He knew everything about everybody and one thing I will always remember is that when he had visitors, he would introduce each of us and give them all the details of our personal lives.

Sue McKay: The visitors included Rotarians who, while they don't give big money as such you never know who will be on those committees or who they will know.

Geoff Renton: It's changed a little bit, but just to take up that point. The Leggos (Liz and Russell) have been great benefactors. My understanding is that a St Kilda Rotary group came here and Liz and Russell came along. Liz has been doing painting for many years and they now hold an art show at 101 Collins St every few years, and all the proceeds from that come to microsurgery.

⁸⁵ **Liliana Pepe** (b.1955) completed an Associate Diploma of Animal Technology prior to joining the St Vincent's surgical research theatre and animal holding facilities at 44 Fitzroy Street (now the Experimental Medical and Surgical Department) in 1979. Ever since, she has assisted and trained Microsurgery Fellows in microsurgical techniques

It's that type of funding that has happened a number of times. There's the lady who left a lot of money, part of the Coy estate, to microsurgery. We did some investigation, we've actually got the photo and named the library the Coy library. What we found was that the lady came to the Hospital doing volunteer work and obviously must have met Bernard or seen his work and made the specific request that her bequest had to go to microsurgery. Who knows why that came about and where it came from, but it's all that sort of thing over time that shows how important it is to do all this networking. The Evelyn M. Coy prize in surgery, for the top surgical graduate, is also named in her honour.

Laurie Muir: In the 1970s, fundraising from corporations was very big and very real and they quite liked the new charity on the block and they could spot what it was going to do for mankind. That's all changed. Very few corporations support us today and we have to rely on charitable funds, government agencies and people like the TAB, Tattersalls, and the public.

Ann Westmore: Is that because corporations now want to show their shareholders actual benefits from the grants they give?

Laurie Muir: Yes. They get a bit of good will, but not perhaps enough [to justify a big donation]. We worked for a while with the concept that those who were in dangerous industries, getting hands cut off, might donate, such as BHP.

Ken Knight: There was probably ten years of applications before we were finally successful.

Ann Westmore: And does BHP still maintain that [grant]?

Ken Knight: They kept that up for a number of years, stopped in 2003 or thereabouts.

Laurie Muir: We haven't therefore quite found our niche. There is one there I'm sure. I think finding that niche is the work for the next five years. But there's no substitute for good publicity.

Ann Westmore: It seems the Transport Accident Commission was a big donor to the building. How did that come about?

Laurie Muir: We had Leon [L'Huillier]⁸⁶ on the Board, didn't we?

Geoff Renton: And I think Margaret Jackson⁸⁷ was Chairman [of TAC Insurance] and Ron Walker was on our Board. That was the second substantial grant. The first

⁸⁶ **Leon Michael L'Huillier** BCom(Hon) MPhil MBA FAIM (b. 1943) gained broad experience as a senior executive and non-executive director of major organizations in the automotive, retailing, transport, logistics and property fields from the 1970s. He was Chief General Manager of the Victorian Department of Health, 1985-88 and became a Director of the Microsurgery Foundation in 1991. See *Who's Who in Australia 2000*

⁸⁷ **Margaret Anne Jackson** AC, BEc MBA (b.1953) studied economics at Monash University before joining Price Waterhouse & Co. She later became a partner in the accounting firm, BDO Nelson Parkhill, and in 1983 joined the board of Telecom Australia. She held directorships with major companies and was

contribution from TAC, whilst Leon L'Huillier was Chairman and CEO, was for \$2 million.

Laurie Muir: They weren't involved in giving to the first building. In fact, I don't think they were in existence in their present form.

Geoff Renton: The total cost was \$4.5 million. The land belongs to the Sisters of Charity who have an agreement for the Hospital to manage the site. The term of the lease for the Microsurgery Institute is until 2017.

Laurie Muir: Do Workcover make donations now because we'd be very logical for them?

Geoff Renton: We've obtained a small grant from them for hand surgery. Things have changed a lot with our move into tissue engineering. We are now doing a lot of work on breast and prostate cancer. An English company and hospital wanted to do work on prostate cancer cells and because they cannot use calf serum to do the work and Australia is free of Creutzfeldt Jacob Disease, we have a contract to do that work here. That fits in with our work on cell metastasis, and that cell work fits in with the tissue engineering we're doing.

So this metamorphosis has gone on and the place is expanding in terms of numbers of staff. As I said before, we wanted to continue to be an Institute where we published and gave our work to the world. But we've had to patent everything to pay our way because a lot of funding sources have dried up. In a way it may be good, but it was better before in the sense that we had funds for education. We trained a lot of people, such as honours students from many different disciplines – pharmacology, pathology, physiotherapy – who came for a year. There were also four to seven PhD students, who didn't stay here but went on to scientific careers elsewhere.

In addition, we have trained many young surgeons and that's been a benefit to the people of Melbourne and Victoria. You may remember the lass at Shepparton who had her face torn off and she was brought to St Vincent's. Yoshio Tanaka⁸⁸ and Wayne worked in two tag teams. Yoshio was part of the tissue engineering group at the time and the two teams worked for about 32 hours, one lot on one table was sorting out the scalp and the face, and the other was working with the patient to find the blood supply. They did a

appointed chairman of the Transport Accident Commission in 1993 and, subsequently, Chairman of Qantas. See *Who's Who in Australia 2000*

⁸⁸ **Yoshio Tanaka** MD PhD (b.1952) worked at BOBIM from 1996 to 1998 as a clinical and research fellow. Since leaving BOBIM he has continued his experimental studies in microsurgery and, as head of Plastic & Reconstructive Surgery at Shinko Hospital, Japan, he has developed a specialty in craniofacial surgery. He credits Bernard O'Brien with giving him the courage and opportunities to do microsurgery. One of his most vivid recollections of his time at BOBIM was the occasion in September 1997 when he was on duty and became part of the team of "multicultural microsurgeons from Australia, Japan, Canada and India" that saved the face of a Shepparton woman after her scalp/face was avulsed in an accident.

- Written communication, Yoshio Tanaka to Ann Westmore, July 2005

marvelous job. It's occasions like that - with all those people together and the science that was going on at the time - that have a practical application straight into the clinical area.

I understand that this Institute created a technique in surgery that used to require 14 days hospitalisation and that now takes 7 days. I often think it's a pity that the Institute didn't get paid for a day of hospitalisation saved and then we'd have good funding for research. The ethos here is that the Institute's scientific and medical staff really just want to get on with the research and with what they do best, they're not interested in the finance and the business side of it. And that's where we need the Board, the expertise of its members, and the outside help.

Leadership

Maris Williams: Bernie O'Brien was unusual in that he did both sides. He was out there trying to raise money and also trying to encourage the research. There's not many people around who can wear the two hats.

Bryan Egan: He was an entrepreneur.

Laurie Muir: We haven't used that word yet today.

Dick Bennett: I would agree that he was a great entrepreneur. He was excellent at what he did. But he also enthused people. He had ideas, and he could sell them. He would go around and meet more people. New ideas, which hadn't been thought of by anybody before. All of a sudden you'd find you wished you'd thought of it before. He would raise the money to do it, get friends to help him. He had all the drive and commitment to achieve what he set out to do.

Ken Knight: I can put that into the NHMRC context. Years ago, you always had to have interviews to get the grants. These days, it's a written response. I think that was Bernie O'Brien's *forte* in that he was able to sell the innovation that was apparent in a project. I think that was in no small part the reason for the success we had.

Dick Bennett: He would take along instruments, a book, an article. He'd be asked a question and he'd take over the interview. 'Well now, these are the instruments, and this is how we've done it,' he'd say.

Ann Westmore: Do you recall going into a grant interview with him?

Dick Bennett: I went to one NHMRC interview with him and that's what I remember him doing. I stood in for him once at the Anti-Cancer Council when he was away somewhere. There was no doubt about his ability to interest the interviewers, and take over the interview by selling his ideas.

Ann Westmore: It's a fairly remarkable combination of skills as Maris pointed out, the ability to have the ideas and sell them, support the research and bring it to practical use.

Laurie Muir: There's a phrase for it these days, and I'm accused of being it. A control freak. (laughter) That was Bernie.

Maris Williams: Yes, but not a nasty control freak.

Laurie Muir: No. Not at all. Ann, there's a topic that we haven't quite covered. I think you should interview Gerard Crock. He's been there right from the start and was one of Bernie's closest *confidantes* and friends, a superb scientist, doctor and researcher in his own right. When we were talking about instruments before, this was Gerard's very special area. Perhaps you [Dick Bennett] could tell us a little bit about the work in China, the new systems you adopted. He [Gerard Crock] used to claim some of the credit, but it was only because he was on our Board, I think.

Dick Bennett: I can't tell you anything in great detail or with confidence. But when Bernard started his work here, he had significant help from Gerard and his Department and his instrument maker, and worked with him in the old morgue or animal research theatre. He was a very important part of the team which developed new techniques. Like you, I know something happened in China, but I can't give you an accurate run-down on that.

Ann Westmore: Even that idea of the nylon thread coated with metal. Where would that have come from?

Sue McKay: That was Mr O'Brien's idea and it was constructed by a man called Mr Last.⁸⁹

Ann Westmore: Prior to that what did they use?

Sue McKay: They didn't use anything because the article I've actually got talks about it being the first one.⁹⁰ Mr Last had spent many years and it had nearly driven him mad. Eventually they got these very fine needles. They also made the new style of micro-clamp, they got together on that.

⁸⁹ According to ophthalmologist, Peter Henderson, the idea originated with Professor Gerard Crock and was developed in the University Department of Ophthalmology by staff including engineer, Ljubomir Pericic, and technical officer S.P.M. Zadar. **Mr R. Last** of the Melbourne firm, Micro-Fine Surgical Equipment, was engaged to manufacture the 28 micron suture which was found suitable for the repair of blood vessels 0.8mm in diameter.

- Personal communication, Peter Henderson to Ann Westmore. See also B Mc C O'Brien, P N Henderson and G W Crock (1970), "Metallized Microsutures", *Medical Journal of Australia*, I, pp 717-719

⁹⁰ Ophthalmologists used fine strands of silk for sutures for many years. Nylon, Dacron and stainless steel wire of various diameters were also used as suture material. See David Fonda's University of Melbourne B Med Sci thesis, "The Applications of Microsurgery to Small Vessel Anastomoses and Scanning Electron Microscopy of Normal Aortic Endothelium", 1972, p 17. A brief review of the literature on microvascular surgery and a technique of microvascular repair of vessels approximately 1mm in diameter used at St Vincent's can be found in O'Brien B McC, Henderson PN et al (1970), "Microvascular Surgical Technique", *Medical Journal of Australia*, I, p 722

Dick Bennett: I think the initial publications were by Bernard and his co-workers in the Department of Ophthalmology.⁹¹ They were related to the instruments and techniques of microvascular surgery.

Phil Spry-Bailey: At lunchtime I was discussing with Wayne - because I went to China in 1972 just after the Whitlam Government sorted out our relations with China again and the Americans weren't allowed in then – and apparently Bernard went up there. I remember the Canton Trade Fair and a brochure which I brought home containing photos of a man who was involved in a train accident and they had sewn his left foot onto the right leg. I was surprised they were so advanced in 1972 and Wayne said, 'Yes, they were very good microsurgeons and they were well advanced'.

Bernard had been up there and came back and wrote a paper for the *Medical Journal [of Australia]* which was rejected. And the following year, the Americans were let in and someone wrote a similar paper and that was accepted, probably in an American Journal. But certainly, he was one of the first to get up there to recognise [how advanced the Chinese were], and he probably brought back some techniques as well, which the Chinese had. I might say that all this work that the Chinese had done to sew the foot back on was the work of Chairman Mao. (laughter)

Joan O'Brien: Professor Shen was the microsurgeon.⁹² He and Bernard were working along the same lines without knowing each other. It was a fascinating trip for him [Bernard] and, on the social side, for me. Chairman Mao was still in control and everyone wore blue suits. When we went into a theatre, I realised I had the wrong clothes. I had a white suit and the whole theatre was blue. I stuck out like a sore thumb.

Maris Williams: Was that the Professor Shen who came out here?⁹³ He was such a sweet man.

Joan O'Brien: Yes, that was Professor Shen.

Laurence Muir: Don't you think to entrepreneur we should add pioneer in describing Bernard? That's the action of a genuine pioneer.

Sue McKay: I think when you mention that, I wonder if everyone here has read a book that Mr O'Brien wrote called *Microvascular Reconstructive Surgery*.⁹⁴ It contains a lot of the early history.

⁹¹ See Jean-Marie Parel, G.W. Crock et al (1970), "Prototypal Electro-Microsurgical Instruments", *Medical Journal of Australia*, I, pp 709-714 for a description of prototypes of a group of electronically automated instruments developed for use in microsurgery in Melbourne

⁹² Professor Tso-Yao Shen from the Department of Burns and Plastic Surgery at Beijing Jishutain Hospital, Beijing, PR China

⁹³ Professor Shen spent a year in Melbourne at the Microsurgery Research Centre as a Visiting Fellow in 1984-85

⁹⁴ See footnote 9

Laurie Muir: One of the greatest pleasures Bernard got was in winning students from America. He was always especially proud; fancy teaching the Americans!

Ken Knight: One of the interesting American Fellows was actually a Fellow with a Russian name, Bruce Shafiroff.⁹⁵ Bruce, and I think it might have been Wayne Morrison, were involved in producing an early logo (for the Institute) that had an Australian coat of arms with a kangaroo and an emu looking down an operating microscope focused on Melbourne.

The Institute and its style

Laurie Muir: Tell us about the present logo because that's after my time.

Geoff Renton: We came up with the hummingbird because it's so small and its wings beat at sixty to eighty beats per second, enabling it to hover. We believe that the hummingbird represents microsurgery, it's so miniature. Then John Haddad⁹⁶ and I came up with the concept and gave it to Grey Advertising which did some *pro bono* work for us to produce a book on microsurgery. If you have any knowledge of birds at all, you will know that the beak should be straight but we took the liberty of bending it to resemble the microsurgery needle. So we have that as a trademark, both for the Foundation and for the Bernard O'Brien Institute. We've also registered throughout Australia, the word MicroDay. It's been my ambition to have MicroDay on the shortest day of the year as a fundraising day and we wanted to sell badges with these beautiful little birds on it. John Haddad had this idea that we could get little birds that you could stick on the car aerial and they would flap in the wind. So they're all possibilities. But at the time it was a branding thing – trying to get something that related to microsurgery – how delicate, small and precise it was.

Laurie Muir: Can you tell us the future of the name, the Microsurgery Research Centre?

Geoff Renton: Well, the Microsurgery Foundation is still there as a legal entity. But the Bernard O'Brien Institute assumed the Microsurgery Research Unit or Centre, as it was called, it was renamed the Bernard O'Brien Institute of Microsurgery (BOBIM) and then incorporated. And so my answer to the question of whether any name will be swept away would be, 'No, that while I'm still here and on the Board, we'll still keep the Foundation as a source of expertise on fund-raising, marketing, management and business'.

The same people are also involved in the Bernard O'Brien Institute which is really running the day to day operations of the research and the money gets transferred in and

⁹⁵ **Bruce B. Shafiroff** MD FACS spent 1978 as a Microsurgery Fellow with Bernard O'Brien before returning to the US and gaining certification from the American Board of Plastic Surgery as a plastic, reconstructive and hand surgeon. At the time of the seminar he was practising with the CNY Institute for Peripheral Nerve Surgery in New York

⁹⁶ **John Michael Haddad** AO AM, FAIM FCIA has enjoyed a distinguished career in the hospitality and tourism industries including appointments as Managing Director of Australian National Hotels Ltd, Chairman of the Australian Tourist Commission, and Chairman of the Sir John Monash Business Centre. He joined the Board of the Microsurgery Foundation in the early 1980s and, at the time of the Witness Seminar, was Deputy Chairman of BOBIM's Board of Directors

out where it's needed. Plus there is the Hospital's involvement. We have financial accounts with them under a Research Unit Code. And the University of Melbourne Department of Surgery is also linked. We have an affiliation with them and collaborative research agreements specifically on the chamber for tissue engineering, with the Department of Chemical Engineering at the University of Melbourne to develop that chamber.

These arrangements were made for specific reasons. Initially, the Bernard O'Brien Institute was renamed but it wasn't an incorporated body. The State Government said that if we weren't incorporated, we would lose our grant of \$154,000 a year. I think this was set up in Alan Skurrie's time and there are now conditions to that, too. You have to get a million dollars of peer-reviewed grants or you have to amalgamate or merge with someone else. So we've done extremely well in that particular area. But that was a necessity of incorporation that we had to put in place in 1998.

Out of that has grown tissue engineering that developed from 1996 to 1998.⁹⁷ At that time we set up the Victorian Tissue Engineering Centre Pty Ltd (VTEC) which the Institute owns in its own right, and whose objective is to develop tissue engineering. Eventually the patents that are in the Bernard O'Brien Institute will go into VTEC, and VTEC will then deal with the outside commercial world. The reason for that is that we didn't want to create problems with the Bernard O'Brien Institute with taxation and other things that say we're getting a lot of income from the commercial area. We would lose our tax status, our donation status etc.

And, as I said before, when all the scientists, the professors and the surgeons came together in 1996-98 to discuss the discovery of tissue engineering, their wish was that they didn't want to get involved in all this (commercial world). They wanted to deal with the science. That's part of the reason to create the split between the two companies.

Laurie Muir: The Board are still the Board members of what?

Geoff Renton: Of both, the Institute and the Foundation.

Sue McKay: So does that mean that this is the logo for the Foundation, but the Institute doesn't have a logo yet.

Geoff Renton: No, the logo is for both places.

Laurie Muir: So we should regard them as one?

Geoff Renton: For all intents and purposes we are one, but there are two separate legal entities.

⁹⁷ The tissue engineering model developed by BOBIM consisted of a rigid chamber buried under the skin which was filled with a carefully-selected tissue matrix and a blood vessel loop created microsurgically from neighbouring vessels. Over a four to six-week period, tissue was grown inside the chamber in a predetermined shape that matched the shape of the desired tissue, for example nose, ear or breast

Laurie Muir: When I write down that I'm the patron, what am I the patron of? (laughter)

Geoff Renton: Both organisations. These things have evolved over time to secure the future of the Institute on this site and benefit from whatever innovations come out of here.

Laurie Muir: I don't know whether you've noticed, but the Baker people are doing the same thing and increasingly refer to themselves as the Baker Heart Institute instead of the Baker Medical Research Institute.

Ann Westmore: It seems that even though the scientists want to focus on research-type activities, there is a fair bit of common knowledge. Is that the case?

Geoff Renton: Yes. I think it was probably exemplified by an international symposium held here in about 1996 or 1998 and attended by scientists and surgeons.⁹⁸ Someone said it was unusual to have the mixture all in the one type of conference and I think that is fairly unique here that they work side by side and in a multi-disciplinary way.

Laurie Muir: And my response would be from the outside that the most important role we lay people can provide is being catalysts from outside, linking up and telling others what this Board and the Institute is doing.

Ann Westmore: Are there regular times when you (lay people) get together, apart from meetings of the Boards that you happen to be on?

Laurie Muir: The Chairman and I talk every week. I haven't been a great deal of help to him, but I occasionally go on his major funding missions. Being patron is of course all pleasure, you don't have to come to Board meetings. But I help when there is an issue.

Ann Westmore: And I suppose you have almost acquired an honorary medical degree by the sounds of it. (laughter)

Ken Knight: If you are talking about amalgamating [the knowledge] of scientists and surgeons, probably the most significant change that has occurred with our research meetings is that we now hold joint meetings, once a week, rather than separate ones that we used to hold, four to five years ago. So we are really talking a common language. We encourage all the visiting Fellows to talk in a language that both scientists and surgeons alike can understand.

Ann Westmore: So there was a time, was there, when the language wasn't so readily understood by one group or another?

⁹⁸ The **International Symposium on Contemporary Microsurgery**, held at BOBIM, 13-14 February 1996

Ken Knight: Yes, and the surgeons only came to hear lectures by surgeons and the scientists only came to hear lectures by scientists. But it's important to have the two coming together, because we have research projects in which both groups are combining; we're all going to the Experimental Medicine and Surgery Unit at the same time. I suppose in the very early days, while I was feeding off the work that the surgeons were doing, there were times when the surgeons had to go off for a case before they had completed operating. In the first three years I was here, I probably operated on over thirty rabbits, joining small blood vessels together. So, it's one of the unique things that happen in a place like this. You do actually learn the skills of a microsurgeon even though that's not your speciality.

Laurie Muir: To show how far we've come, Jim Angus who was here today, is now Dean of the University of Melbourne Medical School, and he's a pharmacologist.

Ken Knight: Speaking of pharmacologists and the history of scientific developments in microsurgery, there was one person who should be mentioned and that is Alastair Stewart.⁹⁹ There was a period when I left to become Principal Scientist in the Chemical Pathology Department, St Vincent's Hospital, and so they wanted to appoint a senior scientist. Up until then, we were working in our own fields and there wasn't a coordinated effort. So Alastair was the one appointed (Chief Scientist in 1992), particularly due to Jim Angus and Bruce Kemp.¹⁰⁰ He (Alastair) was a very intelligent, experienced scientist and he introduced a fairly strict regime of research. While pharmacology was his main field, he introduced some fields which were remote from microsurgery, such as asthma research. It was interesting to see how the lessons he learned from inflammation research could also be applied to things like wound healing and ischaemia reperfusion injury. He spent about five years here and his group had a very major impact on the research that went on. It was a very productive time, and we had a very high hit rate of success with the NHMRC during the period he was here.

Ann Westmore: Did he come from a slightly different field?

⁹⁹ **Alastair George Stewart** MSc PhD (b.1958) graduated top of pharmacology at the University of Melbourne in 1980 then completed a PhD on "Mechanisms of bronchial hyperreactivity to histamine", graduating 1984. He undertook postdoctoral studies in the Hunterian Institute, Royal College of Surgeons, London, before joining the research staff of the University of Melbourne Department of Physiology. He was Chief Scientist at BOBIM, 1992-96, and Senior Associate University of Melbourne Department of Physiology, 1995-98 and an Associate in the University's Department of Pharmacology. In 1998 he was appointed Senior Lecturer in Pharmacology and in 2000 he co-founded Cryptopharma Pty Ltd, a biotechnology start-up company developing novel anti-tumour and anti-inflammatory drugs. In 1993 he was appointed Deputy Head of the Department of Pharmacology.

- Written communication Alastair Stewart to Ann Westmore, February 2005

¹⁰⁰ **Bruce Earnest Kemp** BAgSci(Hons) PhD FAA FRS (b. 1947) was appointed Deputy Director of the St Vincent's Institute of Medical Research and Senior Principal Research Fellow (National Health and Medical Research Council) in 1989. His background was in clinical and research biochemistry, with a special interest in protein biochemistry

Ken Knight: Alastair is a pharmacologist, as is Jim Angus. He's now Reader in the Department of Pharmacology at the University of Melbourne. Loosely speaking, he's still associated with us and he gives us advice in certain fields.

Laurie Muir: It's terrific that this Institute is married to both St Vincent's and to the University of Melbourne.

Dick Bennett: Can I make the point, too, because I feel quite strongly about it, that one of the big achievements of this Institute is bringing together the surgeons, the technicians, the clinicians and the scientists, who are laboratory-minded, skilled scientific people who do different sorts of research. Bringing these groups together so that they understand the other's language means that there has to be a good deal of interchange. And it also brings into the Institute other scientific departments of the University and of the Faculty of Medicine, and indeed [it brings into the Institute] our own University Department of Surgery in this Hospital through Wayne, who is Chairman of the Department. The promotion of this work is really a multi-disciplinary exercise. And it's important to have not only the Institute, the hospital and its clinicians, the University and several academic departments. I think this achievement is an important outcome of all this work.

Ken Knight: I think that's probably the major difference in what the Fellows do these days. Many of them are now becoming academic surgeons back in their home country and home departments. They're developing those skills here, by using scientific techniques to supplement their microsurgery and surgical research skills.

Geoff Renton: I think this place is fairly unique in having affiliations both with the University of Melbourne and St Vincent's Hospital. There are two or three other microsurgery research units [in the world] but I think they're only attached to a hospital and don't have a university affiliation. That's what makes this place that much more unique.

Ann Westmore: So, initially, in its embryonic form when Bernard was trying to get this organisation established, the linkage was with the University and the Hospital; then after a while, it was more strongly with the Hospital; but then at some point that linkage with the University has been strengthened again.

Dick Bennett: Yes, that's pretty much as I see it. It started off really in the Hospital with Bernard doing some animal work in the old mortuary, but there were problems. Then some of the problems were solved and it received a significant boost. Clearly at that stage, it was connected with the University Department of Surgery at St Vincent's Hospital. And I think that was very important and did get it off the ground.

But as we've heard today, Bernie was a great entrepreneur and a great worker. He had his sights set on much more than could be achieved with one department, which was fairly impoverished and small. So he wanted then to move into the Hospital and there was a transition period. The Hospital then ran the Microsurgical Research Unit within the Hospital, with an Advisory Committee. Then that got bigger, there was more work and

more grants and, of course, in about 1970, there was a need for money and the Foundation was established. The Foundation was working outside the academic and the clinical sector, to provide the funds to boost it along as well. So out of all this, you have the Bernard O'Brien Microsurgery Research Institute and the Foundation. And so, all of this having happened, at the end of 1990 I left the Chair of Surgery and my replacement was Wayne Morrison who was already the Deputy Director [of the Institute] under Bernard. So, in a sense, the circle has been sort of completed.

Ann Westmore: Well, that seems a good note to finish on. It's been a wonderful day and very, very informative.

Geoff Renton: I'd like to thank everyone for their input today, on behalf of Ron Walker - the Chairman of the Institute, and John Haddad, the Deputy Chair. They had to attend Sir Rupert Hamer's funeral today. We've been trying to get to this stage for a long time. And as I said, the value of it for the future is that we get the story down and from the people who know it.