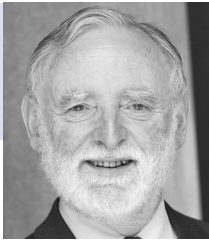


## CONSTRUCTIVE COLLABORATIONS: THE 2003 MEDICAL ONCOLOGY GROUP OF AUSTRALIA PIERRE FABRE CANCER ACHIEVEMENT AWARD LECTURE\*



**A Coates AM**

*The Cancer Council Australia*

It is a pleasure to record my thanks to the Medical Oncology Group, the award selection committee and Pierre Fabre for this unexpected award.

Leonardo da Vinci was one of the foremost contributors to that re-emergence of learning and flourishing of art which we know as the Renaissance, and among the finest exemplars of what we now call Renaissance Man. This term was coined because Leonardo and many of his learned contemporaries aspired to knowledge across what is today an astonishingly wide canvas – painting, engineering, architecture and anatomy. The term is still used as one of approbation.

Robert Heinlein offers a more modern definition along similar lines

“A human being should be able to change a diaper, plan an invasion, butcher a hog, conn a ship, design a building, write a sonnet, balance accounts, build a wall, set a bone, comfort the dying, take orders, give orders, cooperate, act alone, solve equations, analyze a new problem, pitch manure, program a computer, cook a tasty meal, fight efficiently, die gallantly. Specialization is for insects”.

Lazarus Long in *Time Enough For Love* by Robert Heinlein

That's 21 skills. I'm not sure about you, but I barely pass. My career has, however, been one of change, and of interaction across boundaries.

In this presentation I will review some of those collaborations, give credit to at least some of those with whom I have worked, and suggest to you that, at least in terms of research, reaching out across the barriers of your own discipline can be creative and successful.

After completing the Membership, the first phase of my career was at the Walter and Eliza Hall Institute of Medical Research (WEHI), where I was immensely privileged to interact with a large number of extraordinarily talented people. The interface of relevance here was between clinical and laboratory medicine.

Sir Macfarlane Burnet – Mac – had won the Nobel Prize in 1960. By the time I was at WEHI he had retired as director but was a regular at seminars and at weekly case presentations in the Clinical Research Unit. He was sharp as a tack, and an inclusive thinker. I can best illustrate that by a conversation after a seminar – Mac lived near us in Kew and I sometimes used to drive him home. I was a young doctoral student, full of analytical reductionist zeal. I proceeded to describe the various potential flaws in the reasoning of the presenter – I have genuinely forgotten who it was or what it was about. Mac listened politely, then said “Wait a minute. Just suppose he's right. Where would that fit in to our overall understanding? After all, if he's not right we'll discard the idea quickly enough.”

Sir Gustav Nossal was the director, and directly responsible for recruiting me to the Institute. Gus was also a regular at clinical meetings, and regularly brought a scientific angle to question

any shaky clinical assumptions. He was an advocate for evidence-based medicine before the term was popular. Gus was also responsible for my interest in media relations. At the time there was no defined media contact policy at WEHI. One of our colleagues had discovered that insulin-dependent diabetics had a prevalence of autoantibodies in the serum more typical of non-diabetics a decade older. The headline read “Insulin makes you age”. Diabetic comas increased dramatically. Gus came to me and said: “This must never happen again. From now on we have a media relations officer, and you're it”. Gus is and was a consummate communicator, and I could not have asked for a better mentor.

Ian Mackay, head of the Clinical Research Unit, was my immediate boss. Ian was a rigorous and demanding bedside clinician, and carried both characteristics equally through into clinical and laboratory science. His own research and major contributions were in autoimmunity, but he fostered interdisciplinary cooperation among his trainees and staff. Indeed this is the only phase of my career at which I was responsible for clinical patient care, laboratory experiments and simultaneously for reporting cardiographs and liver biopsies.

In many ways pride of place should go to Don Metcalf. Don's was the first laboratory I visited, in 1965. Typically, Don was at a microscope. Barely looking up, he said “Come here, Coates – have a look at this”. This was a colony of haemopoietic cells growing in a dish of agar, a discovery he and Ray Bradley had made earlier in the year. “This will take up the next five years of my life.” He was of course both right and wildly pessimistic.

My other contact from this period would probably be surprised to find himself listed. Through Ian Mackay I got to know Nigel Gray, then director of the Anti-Cancer Council of Victoria (ACCV), and to understand something of the possible contribution of a public health approach to disease control. It's perhaps a major reason for my latest career move.

The next major influence was the late Paul Carbone. I describe myself as a reformed immunologist. I had originally been attracted by the hope – common in the 1960s – that immunology would provide the answer to cancer. When it later appeared to me that such a hope was unlikely to be realised in my professional lifetime, I opted to continue an interest in cancer. In the mid 1970s there were no training programs in Australia. I was presenting some research on CEA at ACCV one day when Paul Carbone was visiting, and as I sat down he offered me a job. I knew of Paul's work at the National Cancer Institute, but he mentioned that he was about to move to Madison, Wisconsin. I accepted and went home to look up where exactly Madison was. Paul was a superb clinician, who revised my prejudices about American bedside medicine. He also provided training and leadership in what we now call translational research. He was generous in involving his Fellows in the clinical trials research of the Eastern Cooperative Oncology Group, so that I returned determined to apply some of the same principles to the conduct of clinical research in Australia.

While at WEHI I had developed an interest in melanoma – most immunologists with a cancer interest do – and in Wisconsin, I as an Australian, was the automatic choice to see melanoma patients. Returning to Sydney I had the opportunity to join Gerry Milton in the Sydney Melanoma Unit (SMU). I remain a member of that unit, under the successive leadership of Bill

McCarthy and John Thompson. SMU has a long and successful record of collaboration both in international clinical trials, and with the immunologists, pathologists, psychologists, epidemiologists and even the medical oncologists who contribute to the management of melanoma. I was privileged to serve as its research director from 1985 to 1998.

My interest in clinical trials led me to join the relevant COSA committee, chaired by John Colebatch, one of the real pioneers of clinical trials in Australia. The experience of co-authoring a book with John (and Richard Fisher) was truly memorable. We put quotes at the head of each chapter. I can't be certain, but it seems very likely that John found this one.

"Reading maketh a full man, conference a ready man and writing an exact man."

Francis Bacon

Certainly exactitude in written expression was one of the disciplines to which he (and of necessity his co-authors) rigidly adhered.

In 1980 I joined the staff of the Sydney Branch of the Ludwig Institute for Cancer Research, under the direction of one of my distinguished predecessors in this award, Martin Tattersall. Martin has trained more medical oncologists than anyone else in Australia. It's a pleasure to acknowledge his selfless support and encouragement. Martin has many of the characteristics of modern Renaissance Man. I'm not sure how many of Heinlein's 21 abilities he can claim, but I'm sure he will be disappointed that his well-known ability to walk on water was not on Heinlein's list. Perhaps conning a sailboard counts.

I mentioned that I came back from the US keen to set up clinical trials in Australia. One of the first colleagues I visited was John Forbes, who had also been overseas – in Cardiff with Michael Baum – and had arrived back transformed from an HLA immunologist to a clinical trials researcher. The collaboration persists. I should also thank and give credit to my other fellow directors of the first Board of the Australian and New Zealand Breast Cancer Trials Group – John Collins, John Simes Vernon Harvey Michael Byrne and Ray Snyder.

Internationally, my work with the International Breast Cancer Study Group has been a real joy, especially because of my close working relationship with Aron Goldhirsch and Rich Gelber.

Another cross-disciplinary collaboration has been into psycho-oncology and quality of life research. Like many things, this arose by chance. On arriving at Ludwig I was presented with a

mass of quality of life scores collected by a departed colleague and asked to apply my statistical skills make some sense of it. That led to the first of a series of papers christened (by Martin Tattersall) "On the receiving end". It also led to the inclusion of quality of life endpoints into the then new advanced breast cancer trial ANZ 8101, which I duly presented at ASCO in Los Angeles in 1985. While there I learned from Aron Goldhirsch that a couple of his Swiss colleagues were designing quality of life measures for the third generation adjuvant trials (IBCSG VI and VII). I was keen to incorporate our experience in the completed advanced trial, so I arranged to fly from Los Angeles to Switzerland to meet with Christoph Huerny and Juerg Bernhard. I suppose the reason it was easy to get a seat at short notice was that this was the weekend of the nuclear accident at Chernobyl, and practically no-one was flying east over the Atlantic. I'm happy to say that this collaboration too persists, and continues to be productive.

Clinical trials research requires the input and dedication of large numbers of colleagues – it's a pleasure to acknowledge the essential input of many colleagues in the International Breast Cancer Study Group and the Australian-New Zealand Breast Cancer Trials Group.

The final constructive collaboration I wish to acknowledge is with Lawrie Wright. Lawrie was appointed as executive director of the then Australian Cancer Society and the Clinical Oncological Society of Australia in 1978, just before I joined COSA. I count myself extremely fortunate to have become CEO of The Cancer Council Australia at a time when I could draw on his expertise, wisdom and guidance.

In summary, the lessons I would propose from this experience, which may be of value to younger colleagues are:

Master your own discipline (collaboration is not a substitute for competence); but  
Specialisation need not be limiting (if you're not one of Heinlein's insects).

Look for interactions with other disciplines: pick them according to opportunity, according to your own interests, and perhaps the examples I have cited. Such collaborations can be constructive, productive, satisfying and fun.

\* This is an edited version of the lecture presented in Canberra on 13 August 2003