



**LEGISLATIVE ASSEMBLY FOR THE AUSTRALIAN CAPITAL
TERRITORY**

STANDING COMMITTEE ON HEALTH AND DISABILITY

(Reference: Health sciences in the ACT)

Members:

**MS K MacDONALD (The Chair)
MS M PORTER (The Deputy Chair)
MRS J BURKE**

TRANSCRIPT OF EVIDENCE

CANBERRA

MONDAY, 21 APRIL 2008

**Secretary to the committee:
Ms G Concannon (Ph: 6205 0129)**

By authority of the Legislative Assembly for the Australian Capital Territory

Submissions, answers to questions on notice and other documents relevant to this inquiry that have been authorised for publication by the committee may be obtained from the committee office of the Legislative Assembly (Ph: 6205 0127).

WITNESSES

HENDERSON, EMERITUS PROFESSOR ALEXANDER SCOTT, AO,
Chair, ACT Health and Medical Research Council..... **1**

MAHALINGAM, PROFESSOR SURESH, Professor and Associate Dean,
Research, Faculty of Science, University of Canberra **13**

The committee met at 11.01 am.

HENDERSON, EMERITUS PROFESSOR ALEXANDER SCOTT, AO, Chair,
ACT Health and Medical Research Council

THE CHAIR: Welcome, Professor Henderson, to this hearing of the health sciences inquiry. Thank you for making yourself available today. You have before you the yellow card relating to privileges and I have just witnessed you reading that. Do you understand the privilege implications of the statement on that card?

Prof Henderson: I do.

THE CHAIR: Excellent. For the record, I move:

That the statement be incorporated in *Hansard*.

The statement read as follows:

Privilege statement

To be read at the commencement of a hearing and reiterated as necessary for new witnesses

The committee has authorised the recording, broadcasting and rebroadcasting of these proceedings in accordance with the rules contained in the Resolution agreed by the Assembly on 7 March 2002 concerning the broadcasting of Assembly and committee proceedings. Before the committee commences taking evidence, let me place on record that all witnesses are protected by parliamentary privilege with respect to submissions made to the committee in evidence given before it.

Parliamentary privilege means special rights and immunities attach to parliament, its members and others, necessary to the discharge of functions of the Assembly without obstruction and without fear of prosecution.

While the committee prefers to hear all evidence in public, if the committee accedes to such a request, the committee will take evidence in camera and record that evidence. Should the committee take evidence in this manner, I remind the committee and those present that it is within the power of the committee at a later date to publish or present all or part of that evidence to the Assembly. I should add that any decision regarding publication of in camera evidence or confidential submissions will not be taken by the committee without prior reference to the person whose evidence the committee may consider publishing.

I also have a few housekeeping matters which I need everyone in the room to observe:

- all mobile phones are to be switched off or put in silent mode;
- witnesses need to speak directly into the microphones for Hansard to be able to hear and transcribe them accurately;
- only one person is to speak at a time; and
- when witnesses come to the table they each need to state their name and the capacity in which they appear.

THE CHAIR: Professor Henderson, would you mind stating your full name and the capacity in which you appear today before this inquiry?

Prof Henderson: I am Alexander Scott Henderson and I appear before you this morning as chair of the ACT Health and Medical Research Council.

THE CHAIR: Professor Henderson, this is the first time we have had a public hearing for this inquiry, but this inquiry has been on the books for the last few years, so we will just proceed through. I might get you to start by talking a little bit about your organisation's role in medical research within the ACT.

Prof Henderson: Thank you. Firstly, the objective of the council as agreed by cabinet—and I read from the document that I will happily make available—is to increase the national and international contribution of the ACT health and medical research community by supporting the leadership efforts of ACT based health and medical researchers and encouraging leading healthcare workers to participate in the research community. Would you like to hear the role as set out?

THE CHAIR: Yes, please.

Prof Henderson: It is that the council will provide advice to the Minister for Health and ACT Health on the coherent development of the health research sector in the ACT, including communication networks, training and research and major research collaborations; the disbursement of funds from the health and medical research support program, including assessment of grants submissions; health research policy and programs, including conducting reviews of specific research activities as requested; and planning for the strategic development of research facilities and infrastructure in the ACT.

THE CHAIR: Thank you. As I said earlier, this inquiry has been running for a few years. The government had put in a submission at the beginning of that period, which was back in 2005, so I imagine that some of the questions may have been superseded, but I might ask them anyway. I note in that submission that the government at that point talked about the establishment, under the health action plan, of the council. When was the council first set up, and how often does it meet?

Prof Henderson: It was in 2004, and it meets approximately four times a year.

THE CHAIR: Okay. And who attends those meetings? Who is part of the council, I should ask?

Prof Henderson: Apart from, obviously, me, they are Professor David Ellwood, professor of obstetrics and gynaecology—

THE CHAIR: And formerly the deputy dean of the medical school, I understand?

Prof Henderson: Yes. There is also Professor Paul Gatenby, who was dean until the first month of this year, and I believe we have now successfully recruited the new dean. I must say that I have not yet seen his written acceptance, but Professor Nick Glasgow has been invited to be on our board. Then we have

Professor Sue Davis from the University of Canberra; a representative, not yet definitively identified, from CSIRO; a representative from the chair of physiotherapy at the University of Canberra. May I refer to my colleague to confirm the identity of these people?

THE CHAIR: You can take that on notice and provide that information to us later.

Prof Henderson: Our uncertainty is because there has been a recent change in membership, with two members withdrawing because of other commitments, unfortunately. Professor Tony McMichael has had to stand down because of his total commitment to global warming and health.

MS PORTER: Out of those roles that you delineated at the beginning, do you see that any of them take the major share of the work, is the work sort of fairly distributed across those areas, or do you see any pressures in any of those roles, or any conflicts in any of those roles, that you could identify?

Prof Henderson: Do you mean in the members or in the tasks before us?

MS PORTER: No, in the tasks that you undertake.

Prof Henderson: There is no conflict. It really breaks itself into two parts. Shall I describe that?

MS PORTER: Yes, that would be the good.

Prof Henderson: One is the disbursement of grants and this is a very labour intensive process for the very modest sum of \$200,000 a year, which I look upon as a very small sum. The members of the council receive written applications, which are as elaborate as NHMRC applications, if you know what I mean, setting out objective, background literature, hypotheses, so that there is a great deal of work for the applicants, but a great deal of work, many, many hours of work, for us in assessing these grants along specified dimensions of attractiveness and scientific merit.

At the end, we have to rank their merit to divide up the small sum of \$200,000. Nobody gets more than \$50,000, so very often only four people will get one of these project grants. But also out of the \$200,000 have to come the program grants, which are essentially designed to seed a much larger project. So applicants might apply, not as individuals so much, to set up a small pilot study which would, if successful, have a high chance of getting a much larger sum of money elsewhere, usually from the NHMRC.

These are very desirable aims to help, firstly, individual investigators and to start off promising programs of research. For the individual grants, there is a big task that we find very difficult. On the one hand, this city has internationally eminent medical researchers at the two universities and the CSIRO. Their applications are usually of a very high standard in terms of scientific merit. But we also want, very, very emphatically—and it is something I am most enthusiastic about—to help young investigators who have perhaps never done any research in their life, like young doctors and nurses in our services.

Of course, their grant applications are usually of a very much more fragile quality and yet we would like to, as it were, load the attractiveness, in our mind, towards the younger people. But then we are faced with highly meritorious applications from senior scientists and we have only \$200,000 to divide up. So we are trying to find equitable solutions to this tension.

MS PORTER: You said that you divide it up into two halves, so what is the other half?

THE CHAIR: Yes. You talked about the council's role in terms of looking at grant applications, but there was another role.

Prof Henderson: Yes. That is the \$200,000. The other part is looking at the possibility of fostering research projects of significance to the ACT health community and how our research community is viewed nationally and internationally. So we have put a great deal of effort intellectually into trying to identify a project that would unite a number of disciplines but also different areas outside health, such as exercise and the environment, which are not specifically medical issues but have a huge impact on health. The attractiveness of that administratively and scientifically is considerable. But to get it going would require scientific and administrative leadership, so who would take this up and run with it? That is the point we are at, at the moment.

MRS BURKE: Thank you, professor, for appearing before our committee today. It is a very fascinating topic. We have heard from you an eminent membership on the committee there, but it does seem that the frustration is coming through in terms of a rather large committee to deal with a very small amount of money, and the prioritising of that funding. I know that this will be a very loaded and dangerous question to ask you, but how much money do you think we could spend on research? The answer will probably be millions.

But let us get back to what you want to see, young people. Has the focus of your committee changed in the four years approximately that you have been running and, if so, how has it changed over time? What emphasis shift do you think we can place on young people and how would that be achieved through the committee, in conjunction with the government and with the minister? And, finally, what projects have you successfully been able to clear and pass through your committee?

Prof Henderson: I would not like to specify a sum. Rather than having a sum available, I would rather set up a number of highly attractive, scientifically attractive projects and then cost these. So it would come from below upwards to the money.

The second part of your question was about young people. In the applications, we have energetically encouraged younger researchers in the community to make applications. Professor Gordon Waddington, the professor of physiotherapy at the University of Canberra, has initiated a mentoring program, which I think is very, very attractive.

THE CHAIR: I should let you know that we have actually received a submission today from Professor Waddington.

Prof Henderson: You have?

THE CHAIR: Yes, we have, just today.

Prof Henderson: I am glad to hear that. Also, to stimulate interest in young people we have disseminated the grant applications and the requirements for making an application very widely, but with a very limited response. Let me give you a concrete example. I have under my supervision 20 registrars in psychiatry—20 in this city. Now, that is marvellous that we have this human resource of these very able young people training in psychiatry and I would very much like just one or two of them to have a grant application that was successful. But we have not succeeded in that. We have had applications, but they have not been successful because they are just weak scientifically. It would not be right for us to hand out \$50,000 for something that is feckless, not good enough.

So we are now looking at encouraging younger people, firstly, to think of doing research, and one way of doing that would be to have a number of research fora—forums—or research days. But then they have to find time to get these, and for these clinically engaged people that is usually very difficult. Then having decided, yes, they would like to do a research project, they have to make sure they have access to an experienced supervisor. There are such resources. This city is full of marvellous resources in that regard. So we would like to use that to good purpose much more. Has that answered your—

MRS BURKE: Yes. The third part related to projects to date and how perhaps the focus may or may not have changed since the committee's inception in 2004.

Prof Henderson: We would happily supply a list of the project titles.

MRS BURKE: That would be useful.

Prof Henderson: Can I refer to Charlie Burnard again? That could be supplied.

MRS BURKE: Thank you.

Prof Henderson: They are grants that have been given since the inception of our council and those that have terminated and reports have been returned to us. They are very diverse, from really hardcore wet lab science, usually at ANU, to much more, shall we say, open ended and less quantitative research. Again, we are bound by what is scientifically meritorious and, as with NHMRC, there are difficulties in marrying what is really good science with what is desirable in terms of the health of the population. Do you understand all that?

MRS BURKE: Yes.

Prof Henderson: There is excellent research work going on in our community, not all of which or very little of which may be of direct visible applicability to the health of individuals or of the whole community. So there are researchable areas at the moment, particularly, for example, in the area of obesity which cries out for research. So it is a

matter of trying to stimulate interest in that.

MRS BURKE: Would eating disorders come into that as well? Is there a lot of interest in eating disorders, which is a really—

Prof Henderson: It would link to that, yes.

MRS BURKE: My final point is that you mentioned that your preferred model, if we could call it that, would be possibly to have a sum of funding and then to put out what you would like to see research on. Did I misunderstand you? I am thinking that way you could say to somebody, “This is the project and make submissions to do research on this project,” rather than it being open slather. Is that something you would like to see?

Prof Henderson: Firstly, let me say that there is an established history for such, as it were, contract research.

MRS BURKE: Okay.

Prof Henderson: The British MRC has done this for a long time. It dictates what the field is and then invites applications within that field. This is something that we have considered, but we have not actually made it explicit. Does that answer your question?

MRS BURKE: Yes. Thank you very much.

THE CHAIR: Professor Henderson, in the review that was done by Frommer in 2001 it was identified that there was a lack of coordinated whole-of-government approach to health and medical research and there was a recommendation that there would be a strategic framework for the ACT. You have talked about the fact that there is a host of resources in this town, and that is certainly my understanding as well because you do have CSIRO and you have got the different research schools at the ANU, as well as the University of Canberra and now the medical school through the Canberra Hospital—

Prof Henderson: Indeed.

THE CHAIR: which has added another spoke in the wheel, I suppose. I am curious to know what sorts of ways there are in terms of enabling networking between the different groups. If this already occurs, can you highlight ways that you believe this already occurs and ways that the ACT could better enable that to occur?

Prof Henderson: There are two ways that such collaboration can come about in my view. One is spontaneously from the investigators themselves. Perhaps I could give you a concrete example. In my own research centre at ANU, when I was director of it, we had the idea that there might possibly be a relationship between diet and mental health. So we went to CSIRO and got a great deal of help in that. We went out seeking collaboration, and that could apply in any of the disciplines we have.

The other model is to make resources in other fields or disciplines much more visible so that the potential for collaboration might be taken up. I understand that, for

example, the medical school does attempt that. I personally see limitations in collaboration being imposed on groups. It is far better for the idea to come from within some individual's mind or his or her research group and for them to say, "We ought to get advice or collaborate with ..." Very occasionally the possibility of a link emerges in a flash—and I gather this is called by Arthur Koestler the bisociative act. You think, "Well, that could go with that," and off you go—great idea; never thought of it before. That occurs within individuals or small research groups.

THE CHAIR: As part of this inquiry we did earlier on go and visit the Walter and Eliza Hall Institute of Medical Research in Victoria. As well we went to the Bio21 Institute, which was very new at that point and was linked into Royal Alexandra Hospital, I think it was. One of the people we were speaking to was talking about the cup of coffee principle. In terms of collaboration, you need to be able to carry a cup of coffee around from one organisation to the other without it getting cold in order for the collaboration to work.

This is, I suppose, more of a conversation than a question. Lots of people have commented on the small size of the ACT and in terms of the small size of Australia as well within our population size, yet I think there is a belief that we actually punch reasonably well above our weight in the world scientific community.

Prof Henderson: Yes, absolutely.

THE CHAIR: I suppose I am interested in ways that we can actually promote the resources that we have here given that a lot of scientists often marry other scientists. This was raised with me as an issue before we actually started the inquiry, but there can be a situation where a married couple come to Canberra because one of them gets employment but the other one does not. There is a whole lot of research ability and potential in that other person which is actually being untapped, I suppose. How do we actually go about tapping that research ability and that scientific ability and the fact that that person has spent numerous years in pursuing their abilities?

Prof Henderson: What you have described is familiar to many of us, but it is not frequent.

THE CHAIR: Okay.

Prof Henderson: But when it does occur, when one star is recruited and her or his partner obviously would like to come physically, too, to Canberra, I know very well that directors and deans and even vice-chancellors do something about that. So what we really would like to know on this topic is: how often is there some partner sitting at home unused or doing some work that is not appropriate for their training? I do not think it happens very often.

THE CHAIR: Okay. Fair enough.

Prof Henderson: The bigger issue behind it is how to attract the first star in the first place as often as possible.

THE CHAIR: Yes, and also not lose them.

Prof Henderson: And keep them.

THE CHAIR: Yes, not lose them in the long run, though. My office has been dealing with a medical research person in the last few months that is actually from the United States. We have now lost her to the University of New South Wales because there was confusion about her visa.

Prof Henderson: Yes.

THE CHAIR: It turns out she actually had a 457 visa the whole time, but she was told by immigration that she had a bridging visa. She was employed by the Canberra Hospital—sorry, by Health—and then ended up being told by Health that, because she did not tick off the boxes because her speciality is so obscure and she is so specialised, immigration did not know how to deal with her. It has taken literally weeks for my office to work through it with immigration. Did you want to make a comment on barriers that are out in the way and also where you see things going with change in possible direction at the federal level to do with science and research? Would you care to comment about that?

Prof Henderson: I assume what you have described was for a scientist, perhaps a medical scientist; is that right? But it also happens for medical practitioners who might be very attractive recruits, and I know a number of examples of that, usually from overseas, including, shall we say, industrialised countries like Canada, the UK and the US, not from the Indian subcontinent or Africa only, although that, too, does occur.

There can be really very, very unfortunate impediments to their registration. I know of one young female registrar at the Canberra Hospital, a Manchester graduate, who cannot have registration in the ACT but can in Queensland. So we might lose her to Queensland. Here you have again the difference between states and territories in medical registration for able young people who might have a research career in front of them. It happens as you described to scientists—how frequently I do not know, but when it does happen it is very unfortunate. What the prescription is to overcome this, I do not know. Obviously it is an administrative one.

THE CHAIR: Yes. I know Mrs Burke is waiting to ask you a question as well. I understand the new Minister for Science and Innovation, Senator Kim Carr, has outlined a new approach. Do you have a comment on that at all?

Prof Henderson: It seems promising.

MRS BURKE: Very diplomatic.

THE CHAIR: Yes, very diplomatic, yes.

MRS BURKE: That is all you can say at this moment. They have got to be given a chance, haven't they, to get into their stride. At the beginning of your speech you talked about eminent members of council and the perhaps inordinate amount of time that they are spending on looking across these grant submissions. What sort of time is

involved in this from each member of the council? Is it becoming too prohibitive? Can we somehow, under the terms of your engagement, be more specific in what you do and then it would be less onerous? Do you have any thoughts on the future of the council, other than being the body for people to submit their applications to? I suppose I am thinking of the eminence of the membership. They would probably be far more suited to being able to do other things with their time, but graciously they are giving up that time for a small amount of money.

Prof Henderson: That is precisely—

MRS BURKE: Do you have an idea? Do you have any more that you can offer the committee around that and how it may work better? What we do not want to see is people leaving the council, because it is a fabulous vehicle through which to give governments advice. I am asking you not to be bashful. I am asking you to give us the wish list. What would an ideal council look like? What would your idea of a council look like?

Prof Henderson: Very close to what it is at the moment, because it is diverse in its membership in terms of discipline, attitude to health research, gender and scientific background. It is diverse and very well put together. I am more than happy with its membership. We do deliberately pump up or augment representation from areas that are I think especially deserving. That is why I was keen to get Professor Glasgow, because he speaks for primary care. There is an example.

So there is all this work. Suppose we have, say, 30 grant applications which, as I recall, is roughly the intake—30 to 40 grant applications. You do it on Saturdays and Sundays. Without any doubt that is when you would do it. You get your red biro out and you sit down and go over it once and then you go over it again and you start making ratings on the various dimensions—clarity, the promise of the question, is there a hypothesis, do they have the resources and so on—all that is rated. So it would be half to three-quarters of an hour for each grant application to do it justice. I have the time because I am partially retired from the ANU, and most of us enjoy this sort of work.

MRS BURKE: Of course, yes.

Professor Henderson: It is also only one of a number of similar tasks from other bodies, particularly NHMRC, where things like this arrive every March-April. People do not begrudge the time spent on it, but we are aware how silly it is to be spending our time with this for \$200,000. I will try and summarise it by saying that the skills we have available within the council—the mental skills and the representation from different sectors—are fine. We continue to think hard about what we can do that would benefit the community, other than giving out money. The year before last, all money was cut, so we had nothing for a whole year, and we all wondered what on earth we are doing here. It is \$200,000 again this year; it has been \$200,000 since we started, apart from that one intermission.

MRS BURKE: Why was there no funding? What happened? Was it an oversight?

Professor Henderson: I think the government became very hard up.

MRS BURKE: Okay.

THE CHAIR: That was the 2006 budget, I should imagine.

Professor Henderson: Yes. So I think we will carry on. We will just put up with the labour intensiveness, for the modest outcome. We will just live with it. We keep pressing for augmentation of the funds available. I am very hesitant to say “more money”, because it is so trite. We are making inquiries about what in WHO are called extra budgetary sources—that is, from elsewhere.

THE CHAIR: Can I just ask, while we are talking about the applications for funding for the research grants, how many you get on average per year?

Professor Henderson: It goes out once a year at the moment, and I think 30 to 40 was what I was saying.

THE CHAIR: Okay. Sorry; you did say that before.

MS PORTER: I would just like to know what the mixture was. You said that you had a certain number from young people, which you were really encouraging, and then you had a certain number from people who have a lot of expertise and are able, of course, to put in a more comprehensive submission. How would the split be—is it 50-50, 75-25?

Professor Henderson: No, no. It would be exceptional for us to give a grant to somebody who is really green as a researcher, unless it was evident that they had very good supervision, and I cannot think of an example where we have done that recently. So, uncomfortable though we are with it, we usually have to turn down the more naive applications, which is very unfortunate. So in this main round of applications I have written in, and the council have agreed with me, at the bottom of the instructions to applicants—essentially; I can give you the precise words if you want—that applicants who have limited experience in research should ensure that their application is supervised by an experienced researcher before it is submitted.

MS PORTER: But of the ones that you receive—say you receive about 30 to 40; obviously you cannot fund all of those—what would be the split? I am trying to get an idea of how many younger people would submit in the first place.

Professor Henderson: They could be young but also good, so there may be two or three of them. They are the ones who have obviously had a good idea and had it well supervised, but they are very much the minority.

MS PORTER: The minority of the applications.

Professor Henderson: And it is just not right for us to say: “This is a marvellous application, but you are close to being a Nobel prize winner at ANU, so you cannot have our money. We would rather give it elsewhere.” We have not gone that far.

THE CHAIR: On a different area, but while we are still talking about young people,

last year I had the opportunity to visit and meet with two of the people involved with the Howard Hughes Medical Institute in Maryland in the United States. I am just thinking about this in terms of looking long term at health science research in 20 or 30 years time, so looking at the future research scientists who are in our schools today. We had a conversation about some of the work that Howard Hughes Medical Institute does with schools—not just in the United States; they also have programs with, I think, some South American countries—and it got me thinking about what sorts of programs and work we should be doing within our school system here in the ACT, which is an area where we can have a very positive impact.

Do you want to comment on that thought? There already are open days with the CSIRO Discovery Centre and the science teacher awards that happen on an annual basis, but are there any other programs that we could look at possibly doing within our school setting?

Professor Henderson: Do you mean how to shop window the health research world for younger people? Is that the idea?

THE CHAIR: Yes, and get them interested from a young age, I suppose.

Professor Henderson: It happens, as I think we agree, to a small extent; there are open days. Presumably it is largely schools or colleges that are our targets. Visiting speakers go down very well. A number of us in the course of our working lives have gone to this school or that school and spoken about our particular area, in a way that teenagers might understand. Younger people at school, in their mid to late teens, are a very attractive target to seduce into a research career, but it does not happen very often. I am wondering if that really answers your question.

THE CHAIR: It was not a very clear question; I apologise for that. I suppose it was the seed of an idea in terms of ways in which we can better promote not just scientific research and medical science research, but science in general within the school community.

Professor Henderson: Yes, the schools certainly. This brings us back to young health and medical researchers who have already got tertiary training. There are a fair number of people out there, the nursing community and young registrars and residents in hospitals, who will never go near research, but amongst them will be a few who would do very well in research. A major obstacle, and it seems so concrete, is time.

A lot of them say, “I would love to have a small project going, but, if I have been up in A&E half the night dealing with very difficult things, that is the last thing I could cope with the next day.” So often these people are working long hours in emotionally taxing situations and it is very hard for them to have their seniors sequester or set aside, say, an afternoon, or even a day, for research. You cannot snatch at it just for an hour here and there.

So I would like to see encouragement from senior health administrators to allow some form of research activity in younger people across all the health disciplines, because now and again it will work. There will be a high casualty rate—a lot of them will not make it—but every now and again some of them will take it up and make a go of it.

Has that answered your question?

THE CHAIR: Yes. That is good. We are going to have to finish there because we have Professor Mahalingam appearing next, but thank you very much for your time. We will be sending you a copy of the proof *Hansard* for you to check for accuracy.

Professor Henderson: Thank you very much and I wish you well in your difficult task.

MAHALINGAM, PROFESSOR SURESH, Professor and Associate Dean,
Research, Faculty of Science, University of Canberra

THE CHAIR: Welcome, Professor Mahalingam. I just have to go through the administrative process first. You have had a chance to read the yellow card related to privilege?

Prof Mahalingam: Yes.

THE CHAIR: Do you understand the privilege implications of the statement?

Prof Mahalingam: Yes.

THE CHAIR: For the record, I move:

That the statement be incorporated in *Hansard*.

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- only one person is to speak at a time; and
- when witnesses come to the table they each need to state their name and the capacity in which they appear.

Amended 14 March 2008

THE CHAIR: Professor, could you start by stating your name and the capacity in which you appear today?

Prof Mahalingam: My name is Suresh Mahalingam. I am an academic at the University of Canberra. I was contacted by my colleague, who is the president of the Australian Society of Medical Research. I am currently the convenor for medical research in the ACT, a job that I took up late last year, for my sins. But I am also wearing a couple of hats: I am the associate dean of research for science and medical research at the University of Canberra and also I am a member of the committee promoting biotechnology in Canberra and the promotion of science to Australia globally in the context of outreach. So I am wearing a few hats but I will bring them all together and see what ideas I can put forward to the committee.

THE CHAIR: Fantastic. We appreciate you making your time available today. You may have heard me allude, with Professor Henderson, to the fact that this inquiry has been on the backburner for the last few years, but it was started in 2005 and we have had difficulty getting people to appear for a hearing, so we are very glad that you could make your time available today.

Prof Mahalingam: No problem.

THE CHAIR: Can you talk about what society's role is within the scientific research community?

Prof Mahalingam: You mean the role of society or the role of the medical researchers?

THE CHAIR: No, the role of society.

Prof Mahalingam: As far as I see it, society needs to be informed about the sort of research that has been carried out in the ACT. I do not think we do that as effectively as the other states. I am involved in a campaign called the national tall poppy campaign. It sort of started in the mid-nineties and took off very well in other states such as South Australia, New South Wales and Victoria. The objective of that campaign is to make use of its leading researchers in medical research and science to engage with the community about awareness of what is going on within medical research and science in general.

The impact of that on the community has been quite good because, if I am not mistaken, the interest in science education within schools has increased. Interest by the public in the sort of research that has been carried out has also increased. In that context, it has allowed them to contribute in any way they can towards enhancing the research—not just medical research but science in general—in those states. That is why I am here—to try to convince you to have such a program within the ACT.

At the University of Canberra, I have a program, which I have just initiated this year,

to get staff members, medical researchers, within my discipline of biomedical sciences to go to schools and have science projects. This is fully funded by my slush fund, but that is a start so that, hopefully, this will get through to other schools and we can get the education department to see that this is engaging university scientists—not necessarily University of Canberra, but also ANU—to have these programs where we go and talk about science to school students.

THE CHAIR: So has that program already started?

Prof Mahalingam: Yes.

THE CHAIR: How many schools and which schools?

Prof Mahalingam: At the moment we are targeting all the primary schools in Belconnen. It has just started. We have done Macquarie and Hawker and we are doing a few other Belconnen schools, but I am hoping that we can translate this across Canberra. My main objective is to try to increase the interest of students at primary as well as secondary schools in science education and science as a career, so that in universities, for example, at least science will not have a decline in enrolment and we will get the brightest students considering science.

We have already initiated that but we are hoping to approach Andrew Barr to look at this as an investment, to engage scientists to disseminate to the students the research and what they do in terms of career opportunities and so on in science.

THE CHAIR: You said it was happening in schools in Belconnen. Is that all the primary schools in Belconnen?

Prof Mahalingam: Not all, just the schools that it so happens my son goes to and another person's son goes to, to start from—

MS PORTER: So it is something that you have initiated?

Prof Mahalingam: Yes. It started because I used to be called by the Northern Territory, Queensland, Victoria and New South Wales to go and talk to their students in primary schools and secondary schools. I have made animations and so on so that a student can understand the research that we carry out, as well as why I did science. We do that in other schools in other states, but we are not doing that in ACT schools.

MRS BURKE: What are the barriers to that, Suresh?

Prof Mahalingam: The body that basically initiated this is the Australian Institute of Policy and Science, which is based in Sydney, but the underlying theme is to promote science education across—

THE CHAIR: Sorry, what was it called?

Prof Mahalingam: The Australian Institute of Policy and Science. We rely on funding from philanthropy and government. In other states they do get some NHMRC funding because it involves medical research. We are hoping to be able to get some

funding from the education department to allow the researchers at ANU as well as at the University of Canberra.

THE CHAIR: So does it occur in all the other states already?

Prof Mahalingam: Not in the Northern Territory and not in WA.

MS PORTER: You mentioned South Australia, New South Wales and Victoria?

Prof Mahalingam: Yes, South Australia, Victoria and New South Wales. Queensland has a program, but I am not sure what is happening at the moment.

THE CHAIR: Would you be able to provide us with details about how the program works in other states?

Prof Mahalingam: Yes, I can. I have got some documents here. I can email you more information on that.

MS PORTER: One of the things that Professor Henderson mentioned was also the pressure of time for people; that it was not just money and that people needed to be able to do some of the things they might like to do. He was particularly referring to research, not necessarily going out and talking with young people in schools. What is your perception of how much time people from the universities may have to devote themselves to this should the funding be found?

Prof Mahalingam: Yes, time is always a factor because, if you are juggling research, teaching and an admin role and all the other external things, it is quite heavy. How I do it is to lobby or advocate for more funds to allow certain people to do certain things so that I can spend more time doing these sorts of things. For example, if I have to give three or four lectures, I would use some of the staff below me to carry out those lectures so that I can spend more time doing things like advocating for research funding and so on.

MS PORTER: So you delegate?

Prof Mahalingam: Yes, I delegate. It is not easy; I work long hours, weekends and so on, but I guess I do it because I want to prove to my VC that I am worth while having at the University of Canberra.

THE CHAIR: I am sure you are.

Prof Mahalingam: But Professor Henderson is quite correct: time is always going to be difficult. But I also believe that the senior researchers who are very successful should be able to give some time. The problem is that the researchers that are sort of moving up the line have to write grant applications to get funding to do their research and it will take a few years for them to reach a period where they can be considered successful, but those who are already successful should be able to contribute more of their time to do this. That is what I think should happen.

MS PORTER: And how well received have they been so far in the schools that you

have been to?

Prof Mahalingam: Very good. Charnwood wants it next year again. We have demands from the other schools because they heard about that. So I have spoken to the principals of some of the schools and said that I am going to organise to fly from Victoria and New South Wales two tall poppies, prominent researchers, one in obesity research and another one in mental health research, able to engage with the students at a level that is suitable for them—not too high pitched—and have this seminar carried out at Hawker College and bring in all the students in the Belconnen area and even other areas to come and listen to their research. We are not doing that at the moment. This is something I am pushing for to happen from now on.

MRS BURKE: What about a junior branch of the Australian Society for Medical Research? Would that be a possibility, through the schools and through the government, to set up? I was thinking almost of a little junior science expo or something that you could—

THE CHAIR: So they could be having scientific experiments in the playground on each other?

MRS BURKE: I do not know. I just thought that it is an important field and it is one that we have to find time for. We talk about the time thing, but at a senior level there surely has to be a model worked out how to facilitate that, but at a junior level, what—

Prof Mahalingam: Yes. During medical research week we try to have some activities. Unfortunately, we do not have those activities much these days. But in the past, while doing medical research with the ACT medical research community I recall that we would organise a booth where they had various things that students could come and try out and have fun with.

THE CHAIR: When is medical research week?

Prof Mahalingam: It is 2 to 6 June this year.

MRS BURKE: Would it be a particular desire to have something separate during that week, a junior—

Prof Mahalingam: Yes.

MRS BURKE: because if you are just having bolt-ons—this is the grown-ups, but you can come along to some things—

Prof Mahalingam: Yes, for sure.

MRS BURKE: maybe there could be a separate emphasis for younger students?

Prof Mahalingam: Yes, for sure. In fact, we are doing national science week at the Convention Centre. They do have activities as well and I encourage University of Canberra researches to participate in.

THE CHAIR: The tall poppies campaign, is there federal funding for that?

Prof Mahalingam: They get some federal funding.

THE CHAIR: Right.

Prof Mahalingam: The last funding expired at the end of last year. We are actually trying to look at funding again from NHMRC. We have been speaking to several different people. In the ACT we do not have one, so I am planning to look at the possibility of us having a campaign like this within the ACT. We can actually manage it well because the ACT is not really huge compared with New South Wales and Victoria. I used to go Longreach and Roma and all that sort of thing. But here we could actually try to utilise and actually achieve more targets, and the outcome, I am sure, would be much better.

THE CHAIR: I am sorry. There are lots of questions going on in my head. It is just which one to pick first.

MRS BURKE: I might go first. What has been the main focus over the last few years of the society and where do you see it heading? Is there a specific area in which you see it heading or do you cover a plethora—presumably you do—of topics? Have you come to a point where you have to narrow the field and choose topics and then work around that, or is it just an open invitation? How does it work?

Prof Mahalingam: It is good to narrow it down, but I would not. I mean, if you want to just put money into or focus on obesity or mental health, there are lots of other research projects that are pretty solid that have been carried out.

MRS BURKE: Yes. So how did you decide what to do? I guess that is the—

Prof Mahalingam: At the University of Canberra I just look at what we want to target. Cancer research is important. There are people doing mental health research, but we also focus mainly on infectious disease as well. I know that there are quite a number, a critical mass of researchers in infectious disease, so I try to put more emphasis on that. It is not something I could really answer for sure.

MRS BURKE: So it is just a broad range of things?

Prof Mahalingam: Yes. If somebody is really good in their field I would not disregard—

MRS BURKE: Yes. You could not discourage them. It is just a question as to whether there are themes and then you get—

Prof Mahalingam: Well, of course the theme has to be based on the critical mass.

MRS BURKE: Yes.

Prof Mahalingam: If there are more researchers really good in this field, then you try

to promote that field, like infectious disease, for example. The other one is medicinal chemistry. I am trying to set up a cohort of researchers involved in medicinal chemistry in drug development. We have a person who looks at herbal medicine. We have a chemist who actually can extract chemicals from this herbal medicine. Then we have people like me and others who are actually looking at anti-inflammatory molecules and cancer molecules. So we try to foster that, just sort of identifying themes that ANU does not do. We try not to do what ANU does.

MS PORTER: Professor, you said that one of the reasons you came today was to lobby us, I guess, in some ways—

Prof Mahalingam: I was told not to use the word “lobby”.

MS PORTER: It certainly came across in that way.

Prof Mahalingam: To advocate.

MS PORTER: Yes, advocate on behalf of the school program. Is there another burning issue that you wanted to make sure that we took away with us today from your presentation?

Prof Mahalingam: Yes. The other thing is about the role of the University of Canberra and medical research funding. I am actually a graduate from John Curtin, but I defected to the University of Canberra four years ago. What I believe in is that there are two sorts of research happening which I have been observing over the past few years. One is research that I saw bog down in minutiae. I am not saying that it is not important—basic research is important—but those researchers are so focused on one particular aspect that they do not see beyond that square.

MS PORTER: Very specialised. That is what you are saying?

Prof Mahalingam: Yes. That is what I used to do. I used to do research just focused on one thing. But in the past three or four years I have started to open up research where we do collaborations with clinicians and collaborations with industry and government, but still focused on what I am doing. I work on a mosquito-borne virus. It so happens that I interacted with a clinician at Canberra Hospital and now we are looking at the prospect that that virus vector could be used for treating osteoporosis. So I am saying that—

THE CHAIR: An application that you never thought would actually be—

Prof Mahalingam: Yes, but because of that interaction it opened up a window. Now I am working with clinicians and I see that it is a fantastic opportunity for a basic research laboratory base, and I work with humans as well. We formed a partnership with this organisation called Medical Association without Animals, which involves human tissue. That sort of research needs to be funded.

We have a strong partnership with Canberra Hospital, and with the limited funding that is available within the ACT—hopefully this amount could be much higher in the future—I believe that we can undertake patient-centred research with basic research

engaging with clinicians to solve an issue. Last year we had \$200,000 allocated for medical research. I would like to see more funding made available to projects that are more patient centred.

THE CHAIR: Yes. You have come from JCSMR and you are at the University of Canberra now. You have had some involvement with the Canberra Hospital. How do you view those organisations working together? Do you see them working together or competing against each other?

Prof Mahalingam: I think it is working together. I have already got good collaboration with Canberra Hospital and also with the John Curtin school with some research where it is appropriate, where there is an overlap with the research that I am carrying out. If I were to put in an application for funding like this, I certainly would be putting it with the clinician at the Canberra Hospital on projects that bring in basic research and clinical research.

One of your points here is how you bring primary and tertiary health together. I just feel that the output should be going somewhere. It is not just basic research and you produce a result and then you just publish. It takes 10 to 15 years before you really see something. Maybe you do not see something. Many basic researchers are in that boat. I am not criticising ANU researchers. I think they are really good researchers, but I feel that many of them are too focused within what they do.

MRS BURKE: They are working in silos, rather than laterally.

Prof Mahalingam: Yes, and I was doing that, too. It was only when I moved out of John Curtin and went to the Uni of Wollongong and then came to Canberra University that I began to see that there are opportunities to really do different things. That is something that I would like to see.

THE CHAIR: So how do you encourage the scientists out of the lab away from their research in order to talk to each other?

Prof Mahalingam: That is difficult. I can do that at the University of Canberra because I have said, “This is what we want to achieve. This is where we are heading.” But it is up to ANU how they do it. I am not going to do anything or say anything to them, but what I am saying is that if we have a small amount of money allocated for research, it should be looking at—because the NHMRC is already funding quite an enormous amount of money into basic research already. If you look at the amount of money thrown into that, it is a lot. So if we have only a small pot of money, do we want to still throw it into basic research? Why don’t we bring in projects that actually have an outcome?

MS PORTER: Would you recommend, therefore, that we have some kind of criteria where there needs to be a component of a partnership within the submission?

Prof Mahalingam: I think that is important because—

THE CHAIR: But would you make it mandatory?

Prof Mahalingam: I would be shot dead, you know. I would like to see it be made not mandatory, but a very important requirement.

THE CHAIR: Highly recommended.

Prof Mahalingam: Highly recommended, because I think that is very lacking in many research areas where they are just focused on one thing.

MRS BURKE: You talked about joint ventures. Maybe joint ventures could be something that would be strongly considered in applications.

Prof Mahalingam: Yes, that is right. I initiated industry collaboration with Biotron. Biotron is the only biotech company in Canberra. I am doing collaborations with the Western Australian government on mosquito surveillance. I never did all that before. I was just taking a virus and looking at the viral protein under the microscope, and that is about it.

MS PORTER: Through you, chair, would this be an opportunity for us to encourage maybe other industries to actually come to Canberra if they knew that that collaboration was going to happen, do you think?

Prof Mahalingam: Yes. That is why I am sitting on the Biotech panel. It has died down a bit because of the lack of funding, but I have recently travelled to Singapore and looked at the Singapore program. In Singapore, as you know, they do not have any resources in terms of plantation or things like that, but they really thrive on the biotechnology. In Canberra we have a catered population. We have really good institutions for research. How could we develop biotechnology within Canberra?

I am talking to a person like John Ballard, who was very successful in South Australia on biotechnology and trying to see how we could develop that. Then, once these biotechnology companies are in place here—you do not have to have many, but a few—then it can contribute to funding and scientific research and all sorts of future development of ACT medical research and health. If you look at South Australia and Adelaide, they have a fantastic program—so successful. I am talking to a guy that actually—

THE CHAIR: Investment program?

Prof Mahalingam: Yes, how to do that in Canberra.

THE CHAIR: I do not know if you were here before, but I mentioned I visited the United States last year.

Prof Mahalingam: Yes.

THE CHAIR: And went to the Howard Hughes—

Prof Mahalingam: You mentioned Howard Hughes, yes.

THE CHAIR: Yes. I also, while I was there, paid a visit to the appropriate

department within the state of Maryland. Maryland is right next to Washington DC and I saw a lot of parallels with what is the case in the United States in DC and Maryland and the research collaboration and what could be the case possibly here in the ACT, with Canberra being the capital and having JCSMR, CSIRO, University of Canberra, Canberra Hospital and things that we could do. There was some discussion with the people in the department of economy—whatever they are called—in Maryland. They were talking about what they call angel investors, that there seems to be much more of a—

MRS BURKE: Entrepreneurial.

THE CHAIR: Well, yes. In a way it is more entrepreneurial. There is investment by just mums and dads who see the possibility of putting into research companies, so they invest. I think that is certainly not something that occurs here Australia. Did you want to talk about ways in which Australia could—I do not know—go down that path or should we not even think about it? Personally I think there is an expectation that that is what governments do; governments invest money in scientific research and it is not for the private individual to do.

Prof Mahalingam: Yes. I think it certainly would be good for governments to approach all the very wealthy people to look at that option. I am not very experienced with these sort of things, but what I am planning to do, which came into my head about a couple of years ago, is to put an ad on TV—it costs about \$5,000—where you just basically talk about the sort of research that is being carried out in the ACT, particularly, for example, from the perspective of the University of Canberra, the medical research, and see what happens. A friend of mine got a million dollars from someone who saw this ad. He was basically dying and he said, “I like that research,” and told his lawyer, “My estate goes into that research.” I see that as an angle to do something.

MRS BURKE: I think that is it. In the community or in society we just think things happen and we see the result of all that years of research. We say, “Look, we have got X.” Other than the things you have just talked about, I do not know how we make the general community more aware at their level. We have to meet them at their level and say to them that it really is important, as the chair has said, to invest in those sorts of programs and to be more entrepreneurial and philanthropic. They do this angel funding for technology companies in Silicon Valley in the states, which I also went to. There is a keenness to do that. Why would it not be more so when it is to do with a human being, not just a machine—which is important, but human beings I think should come a little bit above machines.

Prof Mahalingam: You mentioned Howard Hughes. He had lots of money and he instructed that all his money should go into medical research. If we could have somebody like that who does that and says, “All my assets go into medical research,” it would be fantastic to have something like that here in Australia.

THE CHAIR: I suppose we do it with the Walter and Eliza Hall Institute to a certain extent.

Prof Mahalingam: Yes, but that is specific to one institute. If you look at the

Howard Hughes Institute, it goes not just over all the United States but the world.

THE CHAIR: They are the third biggest funder of research grants around the world. That is right.

Prof Mahalingam: Yes. The Bill and Linda Gates Foundation also puts a lot research funding into tropical diseases.

MRS BURKE: What is the interest in those things that we have just been talking about at a local level? How can you drive it, and is it being driven, in terms of the local society? Is there a good energy level or is there a lack of resources, financial or whatever? What about the time factor that we talked about?

Prof Mahalingam: Time is not really a big factor. It may be financial. If you want to have activities like that, you need to find someone to fill in or get someone from another place to come and engage with the community. That is how I find it at the moment. For instance, I would like to fly in Professor Ian Hickie, who is fantastic in mental health research. But I have to make sure that I am able to find the money for this, as well as doing all the PR work and so on. Getting the person is not a problem; it is just the financial aspects. The drive and ambition are there.

What I am doing here shows that I am quite interested in doing all of this. I am finding the time from nowhere. It is just a matter of the other party saying, “Yep, we like what you’re doing, therefore let’s meet halfway and see how we could help each other and move forward with this.” So far it is been a matter of testing the waters and seeing who is really interested. The partnership with AIPS, the Australian Institute of Policy and Science, is there; it is just a matter of seeing what the ACT is prepared to do.

MRS BURKE: How many members does the ACT branch of the society have?

Prof Mahalingam: For medical research?

MRS BURKE: How many people are associated with—

THE CHAIR: How many members make up the society?

Prof Mahalingam: The medical research society?

THE CHAIR: Yes.

Prof Mahalingam: There are about five or six of us who are committee members, but we have about 100 members—the Canberra Hospital, ANU and the University of Canberra.

MRS BURKE: Is that growing? Is it moving out more to other allied health professionals?

Prof Mahalingam: I hope so, because we had a morning tea to try to recruit as many people—

MRS BURKE: I was wondering how you go about trying to get more members.

Prof Mahalingam: We had a morning tea at the University of Canberra last week; on the 24th, we had a morning tea at the Canberra Hospital; and tomorrow morning there will be a morning tea at John Curtin. So we are trying to recruit—

MRS BURKE: A lot of tea drinking there, I can see!

Professor Mahalingam: Yes, and cakes.

MRS BURKE: Of course. That sounds good.

THE CHAIR: I will have to make you a pavlova!

MRS BURKE: Having listened this morning to the professor and yourself, we really do need to hear more about it. The whole community needs to know that probably their very existence is dependent on some research or other—that they do not get particular things that they used to get, or that we do get some things that we did not get previously. I do not know how we make the community more aware.

Prof Mahalingam: I think a partnership with the tall poppy campaign would be a good start.

MRS BURKE: Yes, that sounds good.

Prof Mahalingam: That is what they are all about. They like to take the key people, the leading lights of medical research and science, to the community. That is their job.

MRS BURKE: What does that involve, and is there a cost attached to establishing that? Would there be a cost for the society?

Prof Mahalingam: I do not think it is much. The head office is in Sydney. It is a matter of having speakers come and engage with that. The convening is covered by the schools, so there is no cost there—maybe some morning tea or whatever you want to call it, and flying the speakers down, talking, and getting the *Canberra Times* involved.

THE CHAIR: So it is not a huge cost, given the investment in time—

Prof Mahalingam: It is not a huge cost. It benefits not only the community but also the school students who are looking at science. I want to make sure that we get quality science graduates, and students wanting to do science.

THE CHAIR: This question occurred to me before and I want to come back to it, while we are talking about schools: do you want to make a comment on the level of teacher knowledge and teacher education involving science, when they are actually doing teacher training? Do you have a view on that?

Prof Mahalingam: I never really went to school in Australia, so I do not want to

comment on something that I do not know about.

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THE CHAIR: That is fine; you do not have to make a comment.

Prof Mahalingam: Certainly, what I am planning to do—this is something off the top of my head, having spoken to a principal—is to form a partnership with one year 11 and 12 college, or even with a secondary school in Canberra, so that that school would be a hub for science. They do that successfully in Toowoomba. I cannot remember the name of the school, but they have a science centre, and that school's performance in science is so outstanding that anyone who wants to do science goes to that school. That partnership is formed with a university. Maybe the University of Canberra could form a partnership with Hawker College and try to build up science education there, and utilise the academics.

THE CHAIR: It is already done to a certain extent; they try to encourage that in certain colleges by having, say, vocational education and training programs. So there is certainly scope. I am sure they would be interested in hearing about that idea.

Prof Mahalingam: Yes.

THE CHAIR: I might finish and say thank you very much for your time.

MRS BURKE: Thank you very much indeed

MS PORTER: Thank you.

Prof Mahalingam: No problem.

THE CHAIR: We will be sending you a copy of the transcript of today's hearing so that you can check it for accuracy.

Prof Mahalingam: Okay.

THE CHAIR: I may wake up in the middle of the night with a burning question that I have to ask you, so we may be back in contact.

Prof Mahalingam: Yes.

THE CHAIR: We really appreciate your time, and we will keep you informed of the progress of the inquiry. Because it is an election year, it will actually be completed this year and the report will go to the Assembly before—

MS PORTER: Before we close, could I ask when the Hawker College forum is going to be held, or has that not been firmed up yet?

Prof Mahalingam: I am putting a few documents to Andrew Barr to see what his response to that initiative is going to be. If he thinks it is good then we will go ahead in the second part of this year.: The schools are already happy about that possibility.

MRS BURKE: If there is anything else you can think of, on the other side of it,

please let us know.

THE CHAIR: Yes.

Prof Mahalingam: Sure. Lastly, wearing a University of Canberra hat here, the University of Canberra is a university of the ACT, and we try to do research to support the ACT community as much as possible. Therefore, if there is any support for medical science, please pass it on to us.

MRS BURKE: That is a good point to finish on.

THE CHAIR: Thank you for your time.

The committee adjourned at 12.28 pm.