Complementary and alternative medicine (CAM): setting an Australian Research Agenda

34th Annual Scientific Meeting of the Clinical Oncological Society of Australia (COSA) 15 November 2007

WORKSHOP REPORT

Prepared by Alison Evans Consulting

BACKGROUND

In developed countries, use of complementary therapies in health care is increasing,¹ with cancer patients reported to be among the most common users.²⁻⁴ The terms used to describe therapies that are not part of conventional medical practices vary widely, with reference often made to complementary and alternative therapies. However, while often grouped together, the distinction between these two streams is an important one, with 'complementary' referring to therapies used as an adjunct to conventional medicine and 'alternative' referring to therapies used instead of conventional medicine. The emergence of the term 'integrative medicine' describes the incorporation of those elements of complementary and alternative medicine that have been shown to have evidence of benefit with conventional approaches to treatment.⁵

While some complementary therapies have been shown to have benefits in the treatment of cancer, a common criticism is the lack of rigorous scientific evidence to support their use as standard practice. Concerns about the potential for interactions with some conventional treatments, as well as the expense of untested treatments contribute to the scepticism that has limited the integration of these therapies into mainstream care. Nevertheless, reports indicate that usage of complementary therapies by cancer patients in Australia is common, ⁶⁻¹⁰ highlighting the importance of improved knowledge about this broad range of treatments.

WORKSHOP OVERVIEW

A breakfast workshop was convened by the Clinical Oncological Society of Australia (COSA) during the 2007 Annual Scientific Meeting in Adelaide. The aim of the workshop was to explore opportunities and barriers to research in complementary care in cancer and to consider priority areas of research for the future. The workshop was attended by around 30 participants from a range of backgrounds, including practitioners in complementary and conventional medicine, consumers and representatives from cancer organisations, research funding bodies and government (see Appendix I). A brief discussion paper was developed by COSA and The Cancer Council NSW to inform the workshop (see Appendix II). The discussion paper provided a definition of complementary therapies, summarised key categories of complementary therapies and recommended potential pathways for prioritising complementary therapies research in Australia. The workshop agenda is provided at Appendix III.

WORKSHOP INTRODUCTION

Short presentations were made by Dr Monica Robotin (The Cancer Council NSW) and Professor Ian Olver (The Cancer Council Australia) to introduce the workshop.

Professor Olver outlined the aims of the workshop, highlighting that participants should consider questions relating not only to evidence of benefit of specific therapies but also questions regarding other types of research, for example, how patients speak about complementary therapies, how the media presents information about complementary therapies and how to integrate complementary therapies into the broader health system.

Dr Robotin provided a brief overview of the discussion paper, acknowledging the various definitions of complementary therapies and suggesting that for the purposes of the workshop, the US National Centre for Complementary Cancer Medicine (NCCAM) definition of complementary therapies be used:

'a group of diverse medical and health care systems, practices and products that are not presently considered to be part of conventional medicine. The list of what is considered to be CAM changes continually, as those therapies that are proven to be safe and effective become adopted into conventional health care and as new approaches to health care emerge. Complementary medicine is used together with conventional medicine. An example of a complementary therapy is using aromatherapy... to help lessen a patient's discomfort following surgery. Alternative medicine is used in place of conventional medicine. An example of an alternative therapy is using a special diet to treat cancer instead of

undergoing surgery, radiation or chemotherapy that has been recommended by a conventional doctor.¹¹

Dr Robotin also summarised the process used by the working group to provide a suggested framework for prioritisation of research questions in relation to complementary therapies. Research questions were weighted according to perceived importance, with highest emphasis given to research about risks of complementary therapies, followed by benefits and potential for integration, then prevalence of use and available expertise and finally accessibility and affordability. A full list of the suggested framework is provided as part of Appendix II.

THE NATIONAL INSTITUTE OF COMPLEMENTARY MEDICINE

Professor Alan Bensoussan provided a brief overview of the aims and goals of the National Institute of Complementary Medicine (NICM). The Institute was established in 2007 with funding from the National Health and Medical Research Council (NHMRC) and will take a national focus with an emphasis on collaboration and capacity building and approaches to the dissemination of research evidence. In defining research priorities, NICM will be guided by the following principles:

- an emphasis on areas of high disease burden in which there is strong preliminary evidence of benefit for the complementary therapy
- a focus on safety, efficacy and cost-effectiveness
- consideration of methodological issues that may be relevant to specific complementary therapies.

As a first step, NICM aims to provide funding grants to 3–4 collaborative centres that offer a theme-based approach, represent a collaborative effort between complementary and conventional medicine, are able to leverage funds, and take a capacity building approach, with the aim of informing national priorities in complementary medicine research.

While the focus of the NICM is all health areas, Professor Bensoussan provided some suggestions to be considered when developing a complementary therapies research agenda in cancer. He suggested that:

- research should focus on identifying complementary therapies that are beneficial rather than focusing on the potential for harm
- there is already sufficient information about what therapies patients are using and why they choose to use them
- mapping of complementary therapies usage should not be used solely to influence decisions about priorities for research, as usage patterns may be influenced by a range of factors including practitioner availability and cost
- a cost-benefit analysis will not be possible until the evidence of benefit for different therapies is more clearly established.

Professor Bensoussan also reflected on the large body of untapped information about traditional Chinese medicines, with 17 universities conducting research in China and over 200 herbal ingredients. He suggested that experts in western medicine and traditional Chinese medicine should work together to identify the most promising areas for research.

WORKSHOP OUTCOMES

A range of comments and issues were raised by workshop participants in an open and freeranging discussion. These included general views about complementary therapies, potential barriers to research into complementary therapies, suggestions about how research could be facilitated and possible areas for research. The issues raised represented individual opinions rather than a consensus view. Key themes have been grouped and are outlined below.

CURRENT STATUS OF COMPLEMENTARY THERAPIES

A number of comments related to the current status of usage of complementary therapies in Australia, as well as attitudes to complementary therapy usage. The key issue relating to complementary therapy usage was that many patients with cancer are using complementary therapies during and after treatment and want to know whether the therapies they are taking will be effective. Some participants also expressed concern regarding potential interactions between these therapies and mainstream cancer care, as emphasised by the fact that Dr Cassileth's Integrative Medicine Unit at the Memorial Sloan-Kettering Cance Center in the USA actively discourages concurrent use of complementary and allopathic therapies during active treatments.

It was highlighted that while there is already evidence of benefit for some complementary therapies, they are not routinely incorporated as part of standard care, often because of opportunity cost. Integration of complementary therapies and conventional medicine requires an acknowledgement of the importance of a holistic approach to patient care rather than a disease-focused approach. It was also suggested that complementary therapies have the potential to address gaps in care that are currently being managed through conventional methods that themselves have little or no evidence of benefit, eg use of chemotherapy at end of life.

POTENTIAL BARRIERS TO COMPLEMENTARY THERAPIES RESEARCH

A range of issues raised by participants reflected potential barriers to research into complementary therapies. The major barriers identified reflected **funding limitations** and issues of **research design quality**.

It was suggested that differing views about the importance of complementary therapies research may influence the research agenda. For example, while patient groups view research into complementary therapies as a priority, donors contributing funds to be used in research may not see complementary therapies as a priority area, particularly as herbal medicines are generally not protected by patents, limiting the level of interest of pharmaceutical companies in supporting this research.

Participants agreed that researchers in complementary therapies are amenable to the conduct of randomised controlled trials. However, it was recognised that historically, poor design quality has limited the success of funding applications. It was also highlighted that even when studies are well designed, recruitment of large patient numbers can be difficult.

POTENTIAL FACILITATORS FOR COMPLEMENTARY THERAPIES RESEARCH

Comments relating to potential facilitators for research into complementary therapies reflected the need for **improved collaboration and communication between practitioners and researchers in complementary medicine and conventional medicine**. It was suggested that use of the term 'integrative medicine' may encourage broader acceptance of complementary therapies by conventional practitioners, instead of the separate term 'complementary medicine', which may carry negative associations with 'alternative' therapies.

It was proposed that the development of collaborative networks of complementary and conventional practitioners may encourage recruitment into studies, help build capacity in

complementary therapies research and provide avenues for sharing of information about research outcomes.

Inclusion of research about complementary therapies as part of large-scale trials of conventional treatments was suggested as a low-cost approach to high-quality research. One example given was the inclusion of a sub-study of a particular exercise intervention as part of an adjuvant chemotherapy trial.

Some suggestions reflected lessons that could be learned from approaches to trials of conventional medicines. For example, identification of 'pre-clinical data' may help inform larger research studies; it was acknowledged that for some complementary therapies, small animal studies may not be feasible; however, pilot studies may be helpful in identifying areas in which there is potential for benefit

POTENTIAL AREAS FOR RESEARCH

There were mixed views about where the emphasis should be placed in identifying research priorities for complementary therapies research. Suggestions included:

- consideration of one or two key therapies that have potential for significant benefit and could be incorporated into routine practice
- consideration of therapies known to be in common use
- research about the factors that influence a patient's use of complementary therapies
 for some therapies, benefits may relate not only to the therapy itself but overall experience, such as having time with a practitioner
- research about approaches to dissemination and implementation for therapies that have already been shown to be effective
- identification of the criteria used by patients to decide whether to use complementary therapies and what influences the rapid spread of information and rapid uptake of 'new' therapies.

OTHER ISSUES

A range of other issues were raised by participants during the workshop that should be considered when planning a complementary therapies research agenda for cancer. Many of these issues related to the importance of **designing research studies that are relevant to the therapy being studied and defining endpoints that are appropriate to the research question**.

It was emphasised that when identifying priorities, it is important not to view all complementary therapies as a single group. The distinction was made, for example, between herbal medicines and touch-based therapies. Participants agreed on the need to ensure that research questions are directly relevant to the particular therapy being considered and that research is conducted using appropriate patient populations. There was also general agreement on the importance of identifying which endpoints will be assessed, for example improvements in quality of life or symptom control rather than survival.

It was suggested that, as with trials of conventional treatments, research studies should consider not only the benefit of the treatment but how the therapy can be incorporated realistically into standard practice.

Another comment was that in addition to undertaking research into complementary therapies, it is important that health professionals are educated about how to discuss complementary therapies with patients, how to present information about therapies for which there is little evidence of benefit, and where to source reliable, evidence-based information about complementary therapies.

KEY OUTCOMES

While there was no formal consensus process to agree next steps, some areas of congruence were apparent. These included:

- patients want to know what evidence there is to support the use of different complementary therapies
- research into complementary therapies should focus on potential benefits as the first priority
- there is a need for improved communication between practitioners and researchers in the fields of complementary and conventional medicine
- the field of complementary medicine is as broad as that for conventional medicine and research methods should be tailored according to the therapy being examined
- there is a need for dissemination and implementation research for therapies that have already shown evidence of benefit
- there is a need for a process to prioritise research questions (a 'research hierarchy'); issues to be considered may include whether the therapies in question have a rational basis and show potential for benefit
- setting of research priorities should be framed within the realities of the available funding base and the timeframe required to identify and develop a high-quality research plan
- there is a need for collaboration and capacity building to facilitate quality research.

COMMITMENTS FROM ATTENDEES

Attendees representing key organisations identified areas in which work in complementary therapies research could be taken forward.

- COSA can provide further forums for collaboration and sharing of ideas and information.
- Cancer Australia can extend the work of NICM by funding complementary therapies research through the Priority Driven Research Grants program as well as the potential to fund a complementary therapies research group through the 2008 round of cooperative research group grants.
- Cancer Council Australia can bring together information, for example, by developing a monograph summarising what is currently known about complementary therapies from a range of perspectives.
- Breast Cancer Network Australia can provide consumer representation for planning of research projects, as well as information about womens' views about complementary therapies.

COSA aims to hold a 1-day workshop in 2008 to develop strategies to address the issues identified in the workshop.

ACKNOWLEDGEMENTS

The workshop was sponsored by Wiley-Blackwell, The Cancer Council NSW and the National Breast Cancer Foundation. COSA gratefully acknowledges the input and support of the workshop facilitator, Dr Norman Swan, the workshop presenters Professor Alan Bensoussan (Director, National Institute for Complementary Medicine), Dr Monica Robotin (Medical Director, The Cancer Council NSW) and Professor Ian Olver (CEO, The Cancer Council Australia), and the workshop attendees, in particular Dr Barrie Cassileth (Chief, Integrative Medicine Service, Memorial Sloan-Kettering Cancer Center, USA).

REFERENCES

- 1. Coulter IA, Willis EM. The rise and rise of complementary and alternative medicine: a sociological perspective. *Med J Aust* 2004; **180**(11):587-589.
- Menniti-Ippolito F, Gargiulo L, Bologna E, Forcella E, Raschetti R. Use of unconventional medicine in Italy: a nation-wide survey. *Eur J Clin Pharmacol* 2002; 58(1):61-64.
- 3. Ernst E, Cassileth BR. The prevalence of complementary/alternative medicine in cancer: A systematic review. *Cancer* 1998; **83**(4):777-782.
- 4. Goldstein MS, Brown ER, Ballard-Barbash R, et al. The use of complementary and alternative medicine among California adults with and without cancer. *Evid Based Complement Alternat Med* 2005; **2**(4)557-565.
- 5. Smyth JF. Integrative oncology What's in a name? *Eur J Cancer* 2006; **42**(5):572-573
- MacLennan AH, Myers SP, Taylor AW. The continuing use of complementary and alternative medicine in South Australia: costs and beliefs in 2004. *Med J Aust* 2006; 184(1):27-31.
- 7. Wilkinson JM, Simpson MD. High use of complementary therapies in a New South Wales rural community. *Aust J Rural Health* 2001; **9**(4):166-171.
- 8. Begbie SD, Kerestes ZL, Bell DR. Patterns of alternative medicine use by cancer patients. *Med J Aust* 1996; **165**:545-548.
- 9. Miller M, Boyer MJ, Butow PN, Gattellari M, Dunn SM, Childs D. The use of unproven methods of treatment by cancer patients. *Support Care Cancer* 1998; **6**(4):337-347.
- 10. Girgis A, Adams J, Sibbritt D. The use of complementary and alternative therapies by patients with cancer. *Oncol Res* 2005; **15**(5):281-289.
- 11. http://nccam.nih.gov/health/whatiscam/. NCCAM 2005 (Accessed August 18 2007)

APPENDIX I: LIST OF WORKSHOP ATTENDEES

Workshop facilitator: Dr Norman Swan

Name	Affiliation		
Professor Alan Bensoussan	Director, Centre for Complementary Medicine Research, University of Western Sydney; Director, National Institute for Complementary Medicine		
Dr Sinclair Bode	General Practitioner		
Professor Phyllis Butow	Director, Medical Psychology Research Unit, University of Sydney		
Ms Alexandrea Cannon	Consumer		
Ms Sue Carrick	Manager, National Research Strategy, National Breast Cancer Foundation		
Ms Christine Carrington	Chair, Cancer Pharmacy Group, COSA		
Dr Barrie Cassileth	Chief, Integrative Medicine Service, Memorial Sloan-Kettering Cancer Center, USA		
Professor David Currow	CEO, Cancer Australia		
Dr Jacklin Elliot	Social Scientist, Royal Adelaide Cancer Centre		
Mr James Flowers	President, Australian Acupuncture and Chinese Medicine Association		
Professor Afaf Girgis	Director, Centre for Health Research & Psycho-oncology (CHeRP)		
Philippa Hartney	Program Manager, Screening & Assessment Service		
Ms Gaynor Heading	Manager, Cancer Professionals and Patient Support, Cancer Institute NSW		
Dr Michael Jefford	Medical Oncologist, Peter MacCallum Cancer Centre		
Dr Chris Karapetis	Medical Oncologist, Flinders Medical Centre		
Associate Professor Bogda Koczwara	Head, Department of Medical Oncology, Flinders Medical Centre		
Professor Ray Lowenthal	Director, Medical Oncology, Royal Hobart Hospital		
Ms Kesani Manuel	Medical Student, University of Sydney		
Mr Chris McKeon	Registered Nurse		
Dr David Oliver	Executive Director, SolarisCare Foundation, Cancer Support Centre, Sir Charles Gairdner Hospital		
Professor Ian Olver	CEO, The Cancer Council Australia		
Dr Kevin Patterson	Queen Elizabeth Hospital		
Ms Alison Pearce	Program Manager, National Breast Cancer Centre		
Dr Andrew Penman	CEO, The Cancer Council New South Wales		
Dr Monica Robotin	Medical Director, The Cancer Council New South Wales		
Ms Penny Schofield	Senior Research Fellow, Supportive Care Research Group, Peter MacCallum Cancer Centre		
Associate Professor Martin Stockler	Medical Oncologist, Sydney Cancer Centre, Royal Prince Alfred Hospita		
Dr Kendra Sundquist	Supportive Care Development Unit Manager, The Cancer Council New South Wales		
Professor Martin Tattersall	Medical Oncologist, Cancer Medicine, The University of Sydney		
Ms Sue Watchman	Executive Officer, Cancer Care Centre		





Setting an Australian Research Agenda in Complementary Therapies

Purpose

This discussion paper was prepared as a background document to inform the COSA Workshop on Complementary Therapies in Cancer Care, which will be held during COSA's Annual Scientific Meeting in Adelaide from 14-16 November.

This invitation only breakfast meeting will explore the opportunities and barriers to research in complementary care in cancer and consider priority areas of research for the future. The meeting will bring together representatives of cancer professional groups, research collaboratives, complementary care providers, government and consumers with the aim of identifying complementary interventions with the greatest promise to improve cancer outcomes and which can be achievable in the Australian context.

Some of the key issues for discussion include:

- What is the definition is research in complementary or alternative or integrative care different?
- What standard of evidence is required to incorporate new complementary therapies?
- What are key priorities for research today and for the future?
- What are key barriers to research? How can we overcome them?
- Are there any opportunities for collaboration?

Background

Although viewed with scepticism by the medical and scientific community, the last two decades have seen an unprecedented growth in the use of complementary and alternative medicines (CAM) in the management of a large number of medical conditions, including cancer. This document uses the definition used by the National Centre for Complementary and Alternative Medicine (NCCAM), as the one more commonly used in the CAM literature.¹

"CAM is a group of diverse medical and health care systems, practices, and products that are not presently considered to be part of conventional medicine.... The list of what is considered to be CAM changes continually, as those therapies that are proven to be safe and effective become adopted into conventional health care and as new approaches to health care emerge. **Complementary medicine** is used **together with** conventional medicine. An example of a complementary therapy is using aromatherapy ... to help lessen a patient's discomfort following surgery.

Alternative medicine is used **in place of** conventional medicine. An example of an alternative therapy is using a special diet to treat cancer instead of undergoing surgery, radiation, or chemotherapy that has been recommended by a conventional doctor".¹

Unlike complementary therapies, which are adjuncts to mainstream cancer care, alternative therapies are typically promoted as stand-alone treatments, or alternatives to chemotherapy, surgery, etc for treating cancer; this is problematic in the care of cancer patients, where delays in instituting treatment can reduce the possibility of a cure or remission.

Although the complementary and alternative therapies are different, the acronym of CAM is commonly used in the literature, although this "acronymic convenience" may unwittingly validate the use of alternative medicine as alternatives to recognised medical treatment. ²⁻⁴

Categories of CAM

A categorisation of CAM modalities (as used by Cassileth and Vickers) 7,accompanied by a brief summary of evidence for their effectiveness₆ is provided in table 1.

Complementary and alternative therapies classifications vary among different authors and complicate attempts to compare the prevalence of use of different therapies. ^{5,6}

Table 1: Categories of complementary therapies and summary of observed effects and benefits

Adapted from Cassileth B, Deng G, Vickers A, Yeung S. Integrative oncology: complementary therapies in cancer care. In. *Integrative oncology*. Hamilton ON: BC, 2005.

Type of intervention	Examples	Comments
1.Dietary and nutritional interventions*	Metabolic therapies & detoxification (e.g. Gerson diet), megavitamin & orthomolecular therapies, macrobiotic diet	They extrapolate some of the general assumptions about the protective effects of a low-fat diet rich in fruit and vegetables in cancer prevention, claiming that dietary interventions cure cancer; their effectiveness has not been convincingly demonstrated
2.Mind-body techniques**	Hypnosis, meditation, relaxation techniques, music therapy	Assume one's health can be influenced by one's mind. Some interventions have become mainstream: e.g. hypnosis can improve pain in advanced cancer, music therapy can alleviate anxiety, depression and pain, particularly in palliative care
3. Bioelectromagnetics	Magnet therapy	The assumption that magnetic fields penetrate the body and heal damaged tissues, including cancers has no evidential basis
4. Alternative medical systems: Chinese medicine, Indian Ayurvedic medicine**	Acupuncture, acupressure, qi gong, tai chi, Chinese herbal remedies.	Substantial research supports the value of acupuncture for pain relief and management of nausea. Chinese herbal teas and relaxation techniques are useful complementary cancer treatments; Chinese green tea and other herbal remedies are the subject of ongoing clinical trials.
5. Pharmacologic and biologic treatments	Immuno-augmentative therapy (IAT), antineoplastons, shark cartilage, Cancell	These treatments are invasive, biologically active and unproven as cancer treatments
6. Manual healing methods**	Chiropractic and osteopathic treatments, hands-on massage, therapeutic touch, energy healing	Chiropractic and osteopathic treatments have a large client base, although their effectiveness is questioned by mainstream practitioners; massage can reduce depression and improve sleep scores in advanced cancer; therapeutic touch and energy healing therapies lack a scientific basis
7. Herbal medicines*	Botanicals	Have long been used as medicines; are commonly used by cancer patients, although most have not been tested in rigorous clinical trials. Data on safety, effectiveness and dosing largely lacking.

General levels of CAM use and costs of treatment

A population-based survey in South Australia found that in 2000, 52% of the population used at least one non-medically prescribed medicine and that 23% visited at least one complementary healthcare practitioner. A cost extrapolation of the expenditure on CAM in Australia for 2000 suggested that AUD 2.3 billion were spent on CAM, representing approximately 4 times the public contribution to the Pharmaceutical Benefits Scheme. The annual retail turnover of complementary medicine alone in Australia in 2003 was estimated at 800 million AUD, with an additional 20% of the national output being exported.

The costs to consumers for CAM treatments can be significant, with an Australian survey estimating a median annual cost of 530 AUD. 10

Reasons for CAM use by cancer patients

CAM use is common among cancer patients, with recent US surveys indicating that anywhere from 9 to 91% of cancer patients used some form of CAM therapy at some point during the course of their disease. Reasons for CAM use included effective symptom relief, seeking an improved quality of life, congruence own values and beliefs, a desire to do as much as possible to fight cancer, concerns about the toxicity of conventional therapies, so respectations it would boost the immune system or destroy the cancer cells.

Concurrent use of CAM and conventional cancer treatments

In 1997, an estimated 15 million adults in the US took prescription medications concurrently with herbal remedies or high-dose vitamins, placing them at risk for drug-herb or drug-supplement interactions.²² An Australian study found that 22% of cancer patients used some form of CAM (with three quarters of them using more than one modality).¹⁰

CAM use estimates by doctors are generally much lower than what is found through patient interviews: a US study found that 37% of patients treated with radiotherapy also used CAM, yet their treating doctors estimated CAM use to be 4%. ²³

Integrating CAM into the continuum of cancer care

As some complementary therapies are proven safe and effective, they may become integrated into mainstream care, in a holistic approach to cancer care termed **integrative medicine**, ^{2,6} although the level of integration and the quality of services offered vary greatly in different countries and among individual cancer centres.²

In North America, the response to an increased patient interest in CAM has been accompanied by the development of research and clinical programs in integrative medicine in many major cancer centres.²⁴ Their efforts, coupled with the creation of NCCAM at the National Health Institute, have made significant contributions towards a greater appreciation of the role CAM could play in integrated patient management. This also resulted in more dialogue between unconventional and conventional treatment providers and created opportunities for collaboration in exploring the potential of novel treatments and facilitating their more rigorous evaluation.¹¹

Establishing research priorities in complementary therapies

The vast array of complementary therapies and their widespread use by cancer patients are strong arguments in favour of developing closer collaborations between researchers, CAM practitioners and conventional medicine providers to establish priorities in complementary therapies research of particular relevance to the field of oncology.

The COSA working group propose the following criteria which could be used to establish research directions in CAMs:

- Prevalence of use
- Potential for harm (extrapolated from biological research)
- Potential for benefit (i.e. there may be bench research that suggests that a therapy looks as

though it might be useful, therefore there is a biological or historical rationale)

- Potential for integration of therapies into continuum of cancer care (i.e. is it truly complementary or alternative).
 - compatibility with conventional treatments
 - potential for interactions
- Accessibility
- Expertise necessary to answer the question exits in Australia

It was noted that these criteria need to be weighted (eg potential for benefit is of major importance). Table 2 is an attempt to apply the criteria to different therapies in order to establish a priority listing of areas for research.

A collaborative approach to establish common research goals has been emphasized by the creation of Australian **National Institute of Complementary Medicine** (NICM) and the inclusion of complementary medicine in the overall health and medical research strategic plan of the National Health and Medical Research Council (NHMRC).

NICM's mission is to "build the capacity of complementary medicine research across Australia, effectively connecting complementary medicine researchers and professionals with the broader research community, industry and other stakeholders to provide strategic focus and foster excellence in research".

The focus of NICM research is foremost research into **complementary medicine products**, with a focus on botanicals and pharmacological and biological treatments. In August this year, NICM conducted a mapping exercise for establishing research priorities in complementary therapies. Some research priorities identified by participants in the research forum included:

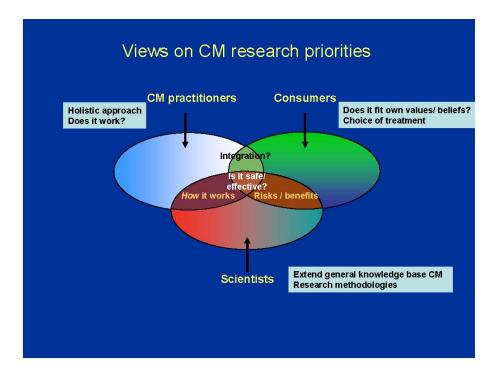
- Quantifying the contribution complementary therapies make to addressing national health priority areas
- Enhancing research in the safety/ effectiveness of complementary treatments
- Evaluating the contribution technological advances make to advancing CM research (e.g. NMR spectroscopy to evaluate herbal medicine effects)
- Focusing research activities to therapies amenable to scientific enquiry
- Developing research capacity where local expertise and opportunities already exist
- Supporting research with potential to attract additional funding/ support from the private sector.

A brief poll of representatives of consumer based cancer organisations identified the following key issues for consumers affected by cancer and their representative organisations:

- Supporting research in the safety/ balance of benefits and harms associated with the use of different treatment modalities
- Prioritising research into therapies commonly used by cancer patients
- Research with potential to contribute most to improved cancer outcomes
- Supporting relevant health services research for CM use by cancer patients
- · Research modalities of integrating promising treatment modalities into standard cancer care

As depicted in figure 1, a significant number of these research issues represent areas of intersection between the research interests of key stakeholders and may at times fall outside the sphere of interest and funding mechanisms afforded by traditional methods of prioritising and funding research.

Figure 1: Research priorities as viewed from different stakeholder perspectives. Overlap areas represent potential areas for consumer –oriented research. Health services research is an important, but often overlooked research areas crossing over research boundaries.



Conclusion

In table 1 we marked with one or two asterisks CAM domains deemed most likely to meet these criteria in an Australian context. The lower priority assigned to dietary and nutritional interventions and herbal therapies (which are some of the most commonly used by cancer patients), reflects the expectation that these areas will be the focus of most of the research attention and funding by NICM.

The issues listed above are intended only as a starting point for what promises to be a very interesting and thought-provoking discussion and brainstorming.

References:

- 1. http://nccam.nih.gov/health/whatiscam/. NCCAM, 2005. (Accessed August 18, 2007)
- 2. Cassileth BR, Deng G. Complementary and alternative therapies for cancer. Oncologist 2004:9(1):80-9.
- 3. Cassileth BR. Alternative and complementary medicine. Separating the wheat from the chaff. Cancer 1999;86(10):1900-2.
- 4. Cassileth BR. 'Complementary' or 'alternative'? It makes a difference in cancer care. Complement Ther Med 1999;7(1):35-7.
- 5. Ernst E. The current position of complementary/alternative medicine in cancer. Eur J Cancer 2003;39(16):2273-7.
- 6. Cassileth B, Deng G, Vickers A, Yeung S. Integrative oncology: complementary therapies in cancer care. In: Decker, ed. Integrative oncology. Hamilton ON: BC; 2005.
- 7. Cassileth B, Vickers A. Complementary and Alternative Cancer Therapies. In: Holland JFFI, E, ed. Cancer Medicine. 6th ed. Hamilton: B.C. Decker Inc.; 2003.
- 8. MacLennan AH, Wilson DH, Taylor AW. The escalating cost and prevalence of alternative medicine. Prev Med 2002;35(2):166-73.
- Expert Committee on Complementary Medicines in the Health System. Complementary Medicines in the Australian Health System. Report to the Parliamentary Secretary to the Minister for Health and Ageing. Canberra: Commonwalth of Australia; 2003 September 2003.
- 10. Begbie SD, Kerestes ZL, Bell DR. Patterns of alternative medicine use by cancer patients. Med J Aust 1996;165(10):545-8.
- 11. White JD. The National Cancer Institute's perspective and agenda for promoting awareness and research on alternative therapies for cancer. J Altern Complement Med 2002;8(5):545-50.
- 12. Kimby CK, Launso L, Henningsen I, Langgaard H. Choice of unconventional treatment by patients with cancer. J Altern Complement Med 2003;9(4):549-61.
- Chrystal K, Allan S, Forgeson G, Isaacs R. The use of complementary/alternative medicine by cancer patients in a New Zealand regional cancer treatment centre. N Z Med J 2003;116(1168):U296.
- 14. Molassiotis A, Fernadez-Ortega P, Pud D, et al. Use of complementary and alternative medicine in cancer patients: a European survey. Ann Oncol 2005;16(4):655-63.
- 15. Singh H, Maskarinec G, Shumay DM. Understanding the motivation for conventional and complementary/alternative medicine use among men with prostate cancer. Integr Cancer Ther 2005;4(2):187-94.
- 16. Algier LA, Hanoglu Z, Ozden G, Kara F. The use of complementary and alternative (non-conventional) medicine in cancer patients in Turkey. Eur J Oncol Nurs 2005;9(2):138-46.
- 17. van der Weg F, Streuli RA. Use of alternative medicine by patients with cancer in a rural area of Switzerland. Swiss Med Wkly 2003;133(15-16):233-40.
- 18. Liu JM, Chu HC, Chin YH, et al. Cross sectional study of use of alternative medicines in Chinese cancer patients. Jpn J Clin Oncol 1997;27(1):37-41.
- 19. Menniti-Ippolito F, Gargiulo L, Bologna E, Forcella E, Raschetti R. Use of unconventional medicine in Italy: a nation-wide survey. Eur J Clin Pharmacol 2002;58(1):61-4.
- 20. Downer SM, Cody MM, McCluskey P, et al. Pursuit and practice of complementary therapies by cancer patients receiving conventional treatment. Bmj 1994;309(6947):86-9.
- 21. Shen J, Andersen R, Albert PS, et al. Use of complementary/alternative therapies by women with advanced-stage breast cancer. BMC Complement Altern Med 2002;2:8.
- 22. Eisenberg DM, Davis RB, Ettner SL, et al. Trends in alternative medicine use in the United States, 1990-1997: results of a follow-up national survey. Jama 1998;280(18):1569-75.
- 23. Kao GD, Devine P. Use of complementary health practices by prostate carcinoma patients undergoing radiation therapy. Cancer 2000;88(3):615-9.
- 24. Cassileth B, Deng G, Vickers A, Yeung KS. PDQ Integrative oncology. Complementary therapies in cancer care. Hamilton, London: BC Decker Inc; 2005.

Appendix 1 Table 2 POTENTIAL PATHWAYS FOR PRIORITISING CAM RESEARCH IN AUSTRALIA

Type of intervention	Prevalence of use	Accessibility/Affordability AA	Benefits	Risks	Integration potential	Available expertise	Overall ranking
Weighting	XX	х	XXX	XXXX	XXX	XX	
Dietary & nutritional:							
Metabolic therapies	Relatively high	Limited	Uncertain	Potentially high	Limited		
Megavitamin/orthomolecular	Relatively high	Limited	Uncertain	Potentially high	Limited		
Rx therapies							
Macrobiotic diet	Unknown	Low	Uncertain	Potentially high	Limited		
Mind-body techniques:			Largely unproven				
Hypnosis	High	Yes/variable	Yes	Maybe	Maybe	Yes	
Meditation	High	Yes/variable	Yes	Some	Yes	Yes	
Relaxation therapies	High	Yes/yes	Yes	Some	Yes	Yes	
Music therapy	Unknown	Limited		No	Yes	Yes	
Bioeletromagnetics:							
Magnet therapy	Unknown	Unknown	Not proven	Potentially yes	Limited	Not relevant	
Alternative medical							
systems:							
Acupuncture/pressure	High	Variable	Yes	Limited	Possible	Yes	
Qi gong	Unknown	?	Yes	Limited	Possible	Yes	
Tai chi	Unknown	?	Probably	Limited	Possible	Yes	
Chinese herbal remedies	High	Variable	Yes	Possible	Maybe	Yes	
Pharmacologic & biologic	_				-		
Rx:							
Immunoaugmentative	Unknown	Unknown	No	Potentially yes	No	N/A	
therapies							
Antineoplastons	Unknown	Unknown	No	Potentially yes	No	N/A	
Shark cartilage	Unknown	Unknown	Probably no	Potentially yes	No	N/A	
Cancell	Unknown	Unknown	No	Potentially yes	No	N/A	
Manual healing methods:							
Chiropractic/osteopathic Rx	High	Variable	Yes	Limited/none	Yes	Yes	
Hands-on massage	High	Unknown	Yes	Limited/none	Yes	Yes	
Therapeutic touch	Unknown	Unknown	Uncertain	Limited/none	Maybe	Yes	
Energy healing	Unknown	Unknown	Uncertain	Potentially yes	Unlikely	Yes	
Herbal medicines:	High	Relatively low	Yes, variable	Yes, variable	Possible	Yes	

NA: Not applicable

Rx: treatments

Weighting: x fairly relevant xx relevant xxx very relevant

Complementary and Alternative Medicine (CAM):

Setting an Australian Research Agenda

7.15 – 8.45 am
Thursday November 15 2007
Room No. 11 Adelaide Convention Centre
Facilitator: Dr Norman Swan

PURPOSE: To explore the opportunities and barriers to research in complementary care in cancer and consider priority areas of research for the future.

PROGRAM

7.15am	SESSION 1 – The Discussion Paper <i>Prof Ian Olver and Dr Monica Robotin</i>

- · key issues
- decision making principles/criteria
- the CAM matrix
- Comments from Barrie Cassileth and Alan Bensoussan
- Plenary discussion led by Dr Norman Swan

7.50 SESSION 2 – Testing the Criteria for Determination of Research Priorities

• Groups to consider the criteria and provide feedback

8.30 SESSION 3 – The Way Forward : An Agenda for Australian CAMs Research

Groups to consider the matrix and agree an agenda for Australian CAMs research