

## Editorial

# ***eCAM* benefits from diversity that derives from CAM**

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'Diversity' is now a magic word, showing up everywhere and often used to embrace many aspects of human activity, whether in government, the arts, sciences, research, choice of research subjects or so on. In many respects diversity represents an encompassing teamwork, and we all know the success of teams in sports in popular terms and the rewards of successful research teams. Thus, we can safely conclude that a diverse team can be a creative team since when investigators of different points of view are brought together, they ponder and question the interpretations, procedures and practices of others. Such is the case for the scientific approach (1). Thus, often butting heads, sometimes even locking horns in healthy debate, is most often resolved by the emergence of creativity. I will now propose several ways in which *eCAM* approaches the question of diversity and I hope that in the process we also engage in this act of creation.

First, the editorial board of *eCAM* is one that is diverse, and to ensure one aspect of creativity, many of us have never worked together, thus allowing for the infusion of different points of view. Our first purpose in establishing the *eCAM* editorial board has been to gather a mixture of experienced biomedical scientists and to combine them with newcomers from a variety of fields who are willing to embrace CAM and to extend themselves beyond their better known academic classifications or 'pigeonholes'. As one of our bases is in Japan, our search for diversity began in Asia at biomedical conferences and research centers in Japan, Taiwan, Korea, India, China, Hong Kong and Thailand, at the same time visiting similar events and places in Mexico, Venezuela, Brazil, Europe and the United States. And these journeys were just

the beginning; we are now in the planning stages for increased involvement in South America, the Middle East and the African continent. In our official letter inviting scholars to join our board, we include the following words: 'CAM is a worldwide phenomenon and *eCAM* will seek to be inclusive of new and old work all over the globe. With this same broad view, we envision an active and varied Editorial Board on which philosophers and historians will be engaged in dialogues with neuroscientists, immunologists, practitioners and clinicians.' To date, the editorial board numbers about 75 members, who reside in most of the continents and many countries. What are most important are not so much the numbers as the disciplines that they embrace, and the list is ever extending into new and exciting areas of CAM. Clearly the crucial functions of editorial board members are threefold: submitting their own manuscripts, critically reviewing papers and recruiting papers. Their voices as contributors and referees have been critical in establishing the unique worldview that can be found in each issue of *eCAM*.

As one peruses our disciplines there is, to be sure, a seeming focus on immunology—but not to the exclusion of other disciplines. Thus, the triangle of the three regulatory systems (nervous–endocrine–immune) is not so evenly distributed, but at least the immunologists realize the intimate connectedness of this triumvirate. Going beyond one's usual classification is best exemplified by invertebrate immunologists (2,3), who bring fresh notions of using animal products as prime targets from which newer technologies can be applied to CAM. Molecular approaches based upon antimicrobial peptides promise to add to the emerging bioprospecting compendium, moving it from the realm of invertebrate immunology to the CAM sector (4–6). (There was already a historical precedent for using products from snails (7).) Moving to the apiary, biologists who look at products from honeybees are already known internationally (8–12). The lesson to be learned and eventually put into practice concerns a wider approach to a

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search for useful drugs and applicable CAM products from diverse terrestrial and marine sources (13–16). There is even room to consider a diverse array of complex derivatives from certain vertebrates such as snakes (17). Botanists (*qua* ethnobotanists, herbalists) have already made their mark, especially as they literally dig up more mushrooms and cultivate diverse plants (11,12,18–23).

Second, the other essential ingredient for successful *eCAM* diversity is the inclusion of experienced, recognized biomedical scientists who are bona fide members of the CAM community and who are open to embracing somewhat tangential approaches that prescience reveals will be fruitful paths to follow. These two tracks—especially this second—should guard against the rather natural tendency of people of like kind (educational background, use of similar techniques etc.) to want to work with their long-term colleagues, i.e. people with whom they have associated before or have often been seen at meetings. Couple these two strategies with an emphasis on the inclusion of newer technologies with the insistence on evidence and we have designed a formula that should remove some of the shroud around CAM, thus giving it a greater measure of acceptance within the western medical community and even the CAM community itself. All *eCAM* is doing is redirecting biomedical scientists well known in one discipline into thinking about the utility of their work and its applicability to another discipline. In my view, this is the creative thought and work that is needed to bring CAM into the arena of western medicine.

Third, of course, recognizing and emphasizing diversity seems only natural since the very discipline of CAM is itself diverse, complex and controversial. It includes such diverse disciplines as osteopathy, homeopathy, chiropractic, acupuncture, herbal medicine, energy medicine and meditation, which are associated with the ancient approaches of China, India, Japan and Korea. Clearly other ancient cultures have much to offer and will, we hope, be uncovered as we delve deeper into practices in other parts of the world, such as Latin America, the Middle East, North America and the south Pacific, that have not been so popularized. Some of the latter, less publicized ways of doing things from these regions could well coincide with those from ancient Asia, differing only as a result of the available natural products. In other words, plants or animal products may differ but offer similar remedies for similar health problems. Thus, remedies may to some extent be intertwined culturally and geographically. In every instance barring cultural and geographical lumping together, all have been concerned with improving the quality of life.

Finally, despite these examples of diversity in numbers, geographical origins and disciplines and scientific approach, there is the difficulty of reconciling the very nature of CAM with certain realities, i.e. the palpable need to undergird CAM with evidence-based results that can, through rigor, occupy the pinnacle of the experimental triangle devoted to immunological benefits as proposed by Goldrosen and Strauss (24). For, as has been pointed out in previous editorials, there is a need for rigorous science if CAM and indeed *eCAM* are to be

taken more seriously, thus ensuring less skepticism from its adherents and disciples and also from the traditional medical establishment and pharmaceutical industry. Now and in the near future, *eCAM* is discussing ways to consider seriously case reports, not the ideal within an acceptable scientific context. An excellent example devoted to Alzheimer's disease has led the way (25).

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