
NCCAM Perspectives on Research on Complementary and Alternative Medicine: Past, Present, and Future

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The National Center for Complementary and Alternative Medicine (NCCAM) was established in 1998 by the U. S. Congress in response to the ever-increasing use of scientifically unsubstantiated complementary and alternative medicine (CAM) therapies,¹⁻³ escalating expenditure of public money in the billions of dollars each year in this area,¹ and growing coverage of these therapies by third-party payers.⁴ The Center is charged to conduct and support basic and applied research and research training and disseminate information with respect to identifying, investigating, and validating complementary and alternative therapies.⁵ Thus, NCCAM supports a broad portfolio of grants and contracts for basic and applied research and research training to identify, investigate, and validate CAM treatments. Disseminating the results of these studies to the public and practitioners is another important priority. NCCAM prioritizes its research programs according to the relative use of a modality, the evidence supporting its value and safety, and opportunities to advance the relevant fields of science.

NCCAM Domain

CAM covers a wide spectrum of ancient to new-age approaches that purport to prevent and treat diseases. By definition, CAM practices are those healthcare practices that are not currently an integral part of conventional medicine. The list of practices that are considered CAM changes over time as CAM practices and therapies that are proven safe and effective become accepted as mainstream healthcare practices. NCCAM groups CAM practices within five major domains, acknowledging that other groupings are possible: (1) alternative medical systems (for example, Traditional Chinese Medicine, Ayurveda); (2) mind-body interventions, (for example, meditation, biofeedback); (3) biologically-based treatments (for example, herbal therapies, special diets); (4) manipulative and body-based methods (for example, chiropractic, massage); and (5) energy therapies (for example, Reiki, Qi gong). The individual systems and treatments comprising these categories are too numerous to list in this document. In addition, there is some overlap across domains such that a CAM practice included within one domain might also be classified within one or another of the five domains. For example, discrete practices such as meditation are considered mind-body interactions, but they are also included as part of some alternative systems of medicine. Readers who wish to know more about the details of these domains are encouraged to review the NCCAM Five-Year Strategic Plan.⁵

NCCAM Research Program

The appropriations to NCCAM have increased substantially from \$48.9 million since 1998 when it was established to \$104.5 million in fiscal year (FY) 2002. However, the amount is not sufficient to study all CAM practices.⁶ Therefore, NCCAM must be selective when determining which of the many possible research opportunities it will support.⁷

NCCAM has both intramural and extramural programs. The Intramural Research Program supports the work of CAM researchers at scientific laboratories within the NIH. This program provides a foundation for NIH scientists to conduct basic and clinical research in CAM. The Extramural Research Program helps design, develop, review, fund, and implement specific CAM research projects

and training that occur outside the NIH, in addition to coordinating grants with other NIH institutes and centers.

In response to the urgent need to provide reliable information to the public, NCCAM allocates a relatively large percentage of its resources to critical clinical trials.⁸ This approach is in contrast to the traditional discovery of new treatments where basic mechanisms are first investigated before a clinical trial takes place. NCCAM realizes that acquiring important basic, mechanistic, and pre-clinical information is necessary to completely understand the safety issues and to optimize research paradigms. These critical research needs are being gradually fulfilled as more resources become available and as some of the important clinical trials approach completion.

In addition to supporting focused clinical trials, NCCAM established CAM Research Centers that specialize in various disease areas such as arthritis, craniofacial disorders, neurological disorders, cardiovascular diseases, and cancer.⁹ These research centers not only encourage CAM research, but also cultivate a pool of investigators interested in CAM, which is very important for the growth of the field. The topics of research involve clinical trials, pre-clinical and basic investigations involving all CAM modalities.

The majority of NCCAM supported CAM research is investigator initiated. NCCAM now supports over two hundred such projects covering all disease aspects. The modalities being studied include Tai Chi (Taiji) exercise, Hawthorn, phytoestrogens, biofeedback, Ayurvedic herbals, acupuncture, qigong, Reiki, meditation, spirituality, *Ginkgo biloba*, and special diets. A list of funded grants is posted at the NCCAM website.¹⁰

To further foster the growth of skilled investigators in both CAM and conventional communities, NCCAM encourages research collaborations between CAM and conventional practitioners and researchers by awarding grants to individuals as well as institutions for both mentored and independent research, ranging from basic through clinical research investigations. The program awards National Research Service Award Institutional Training Grants (T32) to eligible institutions to develop or enhance research-training opportunities for individuals, selected by the institution, who are training for careers in specified areas of biomedical and behavioral research. The NRSA also supports pre-doctoral and post-doctoral fellowships.

NCCAM Resources for Investigators

NCCAM encourages the research community to submit unsolicited applications as well as respond to solicitations. Virtually all aspects of CAM modalities are open for investigation. In addition to the traditional investigator-initiated NIH grant mechanism (R01), many other options are available. One important opportunity that researchers have is submitting an exploratory/developmental application (R21). These are relatively small, limited, two-year awards for the generation of sufficient preliminary data necessary to support a full research grant (R01). To further promote research, NCCAM also supports training and career development awards (K series). Information regarding applications and solicitations is published in the NIH Guide¹¹ and is available on the NCCAM website.¹²

References

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8. For an overview of clinical trials, see <http://nccam.nih.gov/ne/clinical-trial/>
9. For a list of centers, see <http://nccam.nih.gov/fi/research/centers.html>
10. For a list of funded grants, see <http://nccam.nih.gov/research/grants/rfb/index.html>
11. The website for NIH Guide is: <http://grants.nih.gov/grants/guide/index.html>
12. The NCCAM website is: <http://nccam.nih.gov>

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