

# NCI CAM Research Funding Portfolio Analysis: FY 2010





## THE CAM PORTFOLIO ANALYSIS PROCESS

How much money does NCI spend on CAM research each year? This is one of the questions most frequently posed to OCCAM. Researchers, cancer patient advocates, proponents of CAM, and Congress are interested in the answer, and OCCAM is responsible for gathering the data needed to report the total CAM expenditures budget figure each year.

It is a common misconception that OCCAM manages all of the CAM projects for NCI. The vast majority of CAM projects are managed by other programs and laboratories throughout the Institute. After the close of the fiscal year, NCI's Division of Extramural Activities (DEA) provides OCCAM with a list of funded grants and cooperative agreements coded as containing some component of CAM research. Similarly, NCI's two intramural components, the Center for Cancer Research (CCR) and the Division of Cancer Epidemiology and Genetics (DCEG), provide lists of their potentially relevant projects. Also, a list of contracts identified as potentially containing CAM research is provided. OCCAM staff review each project to confirm they are accurately classified as CAM research. Then aspects of each project are identified allowing their placement into sub-categories based on the type of research and CAM intervention investigated.

NCI's total CAM expenditure figure includes money awarded for intramural projects (projects conducted within NIH facilities and labs), extramural grants (projects conducted outside of NIH), cooperative agreements, contracts, and supplements. It is important to note the reported figure for total NCI CAM expenditures for a fiscal year only includes projects for which NCI is the primary funder.

## Total Estimated Cancer CAM Research Expenditure

In FY 2010, NCI invested \$114,460,116 for 406 intramural and extramural research projects relevant to CAM. For the purpose of the FY 2010 analysis, the following types of funding are included: intramural projects and extramural grants, cooperative agreements, contracts, and supplements (Figure 3).

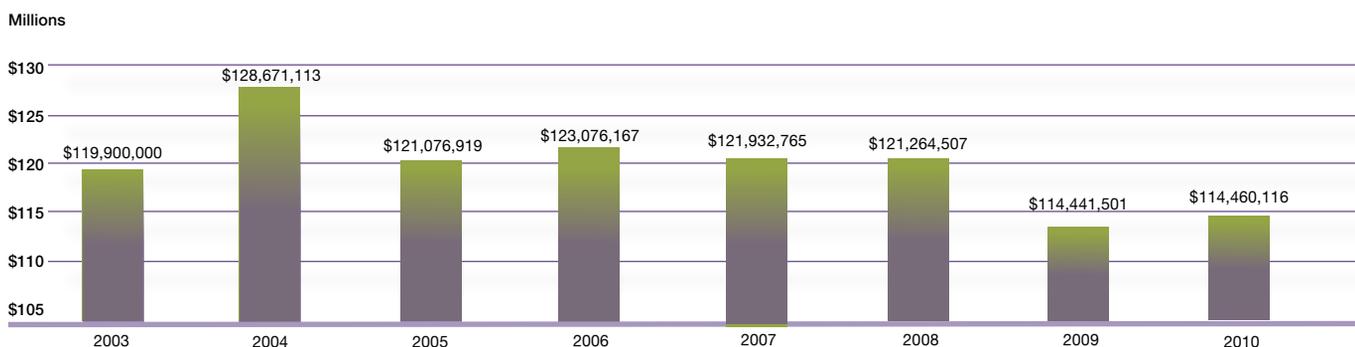
In addition, during FY 2010, NCI used \$6,646,594 in funds from the American Recovery and Reinvestment Act (ARRA) to award 27 CAM research grants.

The above numbers do not include CAM training grants (T and F awards), K (research career) or R25 (cancer education) grants. These numbers are listed separately in Figure 4.

## Grant Awards by Funding Opportunity Announcement

In FY 2010, there were 65 funding opportunity announcements (FOA) that yielded cancer CAM grants. The program announcement (PA) “Research Project Grants (Parent R01)” (PA-07-070) was the most productive mechanism for attracting new CAM grants to NCI. A total of 85 of the 238 CAM grants awarded through FOAs in FY 2010 came to NCI through this announcement (Figure 5).

Figure 3. NCI CAM Expenditures: FY 2003-2010\*



\* Includes grants, cooperative agreements, intramural projects, and contracts. Grants and cooperative agreements are only included when NCI is the primary funding agency. Excludes training grants (Ts, Fs, Ks, and R25s) and ARRA funds. Total projects include all active projects in FY 2010.

Figure 4. NCI CAM Training Projects 2010

Training Grant Mechanisms	Number of Grants	Total Funding
F (31, 32)	3	\$ 48,892
K (01, 05, 07, 22, 23, 24)	19	\$1,427,308
R25	4	\$ 782,445
T32	1	\$ 46,140
<b>TOTAL</b>	<b>27</b>	<b>\$2,304,785</b>

Note: does not include ARRA funded projects.

## Breakdown by Research Type

The accompanying pie-chart (Figure 6) shows the distribution of the projects by prevention, treatment, symptom/side effects management, epidemiology, and conferences. In FY 2010, 61.5% of cancer CAM-related research project funds went to various cancer prevention efforts, while treatment, symptom/side effects management, epidemiology, and conferences received 19.7%, 11.2%, 7.5%, and 0.004% respectively.

## Breakdown by Major CAM Therapy Category

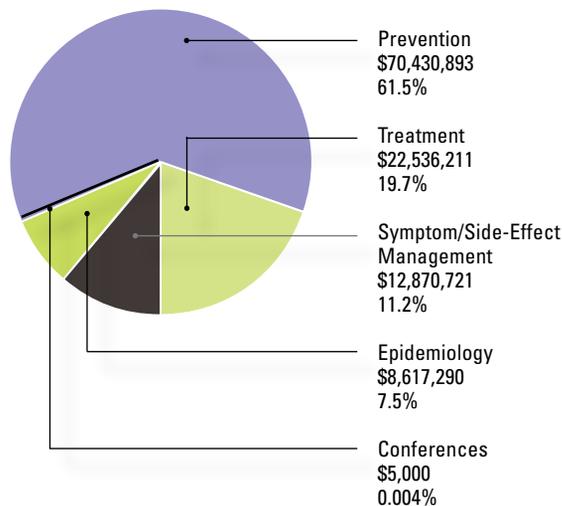
In FY 2010, NCI performed or supported research addressing a variety of CAM approaches (Figure 7). These CAM therapies fall into nine groups: alternative medicine systems, energy therapies, exercise therapies, manipulative and body-based methods, mind-body interventions, nutritional therapeutics, pharmacological and biologic treatments, spiritual therapies, and miscellaneous.

(See page 4 for definitions of CAM categories.)

Figure 5. Number of Grant Awards by Funding Opportunity Announcement

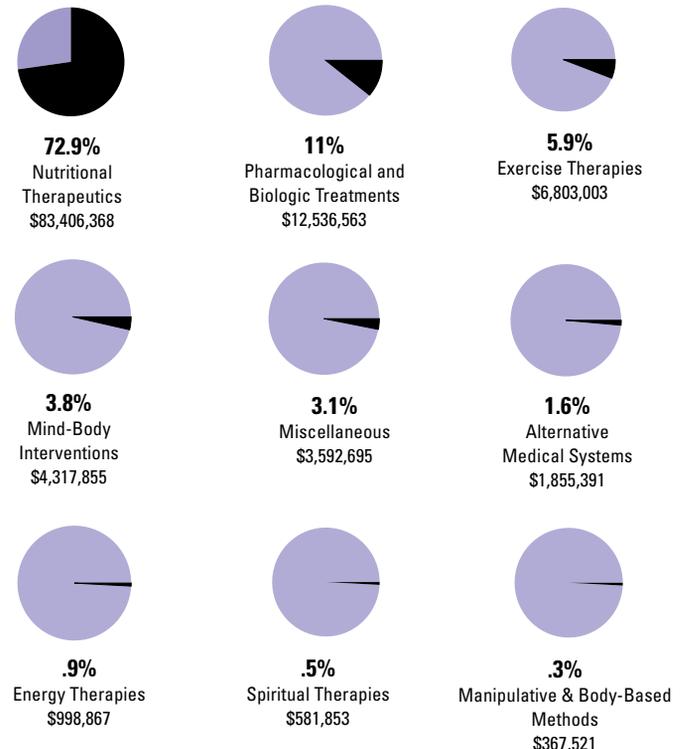
AT03-002	2	PA04-046	1	PA06-351	4	PA07-100	2	PA07-362	8	PA08-220	2	PAR08-020	1
AT08-003	1	PA04-099	2	PA06-400	3	PA07-174	1	PA08-032	1	PA09-010	3	PAR08-055	14
CA04-004	1	PA05-027	1	PA06-412	3	PA07-175	4	PA08-051	1	PA09-149	1	PAR08-135	4
CA05-001	1	PA05-040	1	PA06-413	4	PA07-176	1	PA08-074	1	PA09-167	3	PAR08-237	3
CA05-013	2	PA05-125	2	PA06-414	1	PA07-177	1	PA08-121	1	PA10-067	1	PAR09-025	1
CA05-014	1	PA06-042	1	PA06-440	1	PA07-257	2	PA08-149	1	PAR05-156	4	Total Solicited	238
CA07-025	6	PA06-283	1	PA06-510	8	PA07-258	1	PA08-185	4	PAR06-294	2	Total Unsolicited	137
CA08-004	1	PA06-303	1	PA07-007	3	PA07-280	1	PA08-208	2	PAR06-313	13	<b>TOTAL GRANTS AWARDED</b>	<b>375</b>
CA09-022	2	PA06-314	2	PA07-046	1	PA07-320	1	PA08-209	1	PAR06-458	1		
HL08-013	1	PA06-315	5	PA07-070	85	PA07-356	1	PA08-210	1	PAR06-505	1		

Figure 6. NCI CAM Research Projects by Research Type\*



\* Includes grants, cooperative agreements, intramural projects, and contracts. Grants and cooperative agreements are only included when NCI is the primary funding agency. Excludes training grants (Ts, Fs, Ks, and R25s) and ARRA funds. Total projects include all active projects in FY 2010.

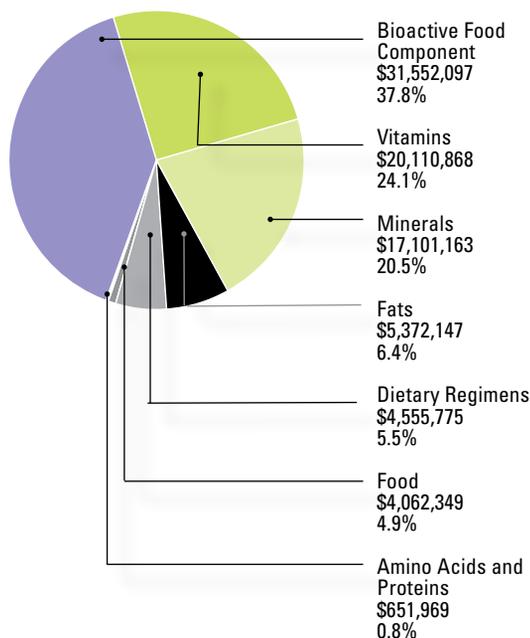
Figure 7. NCI CAM Research Projects by CAM Category\*



The largest percentage (72.9%) of CAM research funding went to projects that investigated nutritional therapeutics, which can be further broken out into subcategories of research on: foods (e.g., broccoli and berries); minerals (e.g., calcium and selenium); vitamins (e.g., vitamins C and D); bioactive food components (e.g., isoflavones and carotenoids); dietary regimens (e.g., caloric restriction and high fruits and vegetables); fats (e.g., linoleic acid and omega-3); and amino acids and proteins (e.g., N-acetyl cysteine and glycine).

Figure 8 shows the distribution of projects by the subcategories of nutritional therapeutics.

Figure 8. NCI CAM Nutritional Therapeutics Projects by Category\*



\* Includes grants, cooperative agreements, intramural projects, and contracts. Grants and cooperative agreements are only included when NCI is the primary funding agency. Excludes training grants (Ts, Fs, Ks, and R25s) and ARRA funds. Total projects include all active projects in FY 2010.

## Breakdown by Cancer Type

The research projects that make up NCI's FY 2010 CAM research portfolio address 17 categories of cancer types. Among the various categories, prostate, breast, colorectal, and lung cancers received the largest amounts of cancer CAM research funding. Nearly 28% of NCI's cancer CAM research funding supported projects addressing "multiple types" of cancer.

For a complete listing of the cancer type categories and estimated funding amounts, please see Figure 9 below.

Figure 9. NCI CAM Research Projects by Cancer Type\*

Bladder	\$1,257,201
Brain	\$308,138
Breast	\$16,092,015
Cervical	\$1,124,471
Childhood Cancer	\$544,632
Colorectal	\$14,868,217
Esophageal	\$1,535,074
Gastric	\$1,714,307
Head and Neck	\$2,989,885
Hematologic	\$2,128,574
Liver	\$1,114,248
Lung	\$10,001,521
Multiple Types	\$31,728,976
Pancreatic	\$3,140,236
Prostate	\$20,832,378
Skin: Melanoma and Non-Melanoma	\$5,030,124
Small Intestine	\$50,119
<b>TOTAL:</b>	<b>\$114,460,116</b>

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