



DEPARTMENT OF DEFENSE
CONGRESSIONALLY
DIRECTED MEDICAL
RESEARCH PROGRAMS

ANNUAL REPORT SEPTEMBER 30, 2002



U.S. Army Medical Research and Materiel Command





DEPARTMENT OF DEFENSE CONGRESSIONALLY DIRECTED MEDICAL RESEARCH PROGRAMS

ANNUAL REPORT SEPTEMBER 30, 2002

U.S. ARMY MEDICAL RESEARCH AND MATERIEL COMMAND

Congressionally Directed Medical Research Programs
ATTN: MCMR-PLF
1077 Patchel Street
Fort Detrick, MD 21702-5024
Phone: (301) 619-7071 Fax: (301) 619-7796
http://cdmrp.army.mil

DEPARTMENT OF THE ARMY



US ARMY MEDICAL RESEARCH AND MATERIEL COMMAND 504 SCOTT STREET FORT DETRICK, MARYLAND 21702-5012

September 30, 2002

Office of the Commanding General

Dear Colleagues:

The U.S. Congress has directed the Department of Defense to execute numerous targeted biomedical research programs. The U.S. Army subsequently established the Office of the Congressionally Directed Medical Research Programs (CDMRP) to administer these initiatives within the U.S. Army Medical Research and Materiel Command. The CDMRP manages peer-reviewed research programs in breast, prostate, and ovarian cancers, neurofibromatosis, prion transmissible spongiform encephalopathies, chronic myelogenous leukemia, tuberous sclerosis, military health, and other specified areas.

This 2002 Annual Report summarizes the history, management strategies, and achievements of the CDMRP. The success of the CDMRP can be attributed to the collective wisdom and dedication of a unique public/private partnership that includes the military, scientists, clinicians, consumer advocates, and policy makers. By funding highly meritorious and innovative research and identifying and filling gaps in scientific knowledge, this partnership is improving the health and quality of life of all individuals.

Sincerely,

Lester Martinez-Lopez, M.D. Major General, Medical Corps

Commander

DEPARTMENT OF THE ARMY



US ARMY MEDICAL RESEARCH AND MATERIEL COMMAND 1077 PATCHEL STREET FORT DETRICK, MARYLAND 21702-5012

September 30, 2002

Congressionally Directed Medical Research Programs

Dear Colleagues:

We are fortunate to be living in a scientifically rich era that has yielded significant improvements in the prevention, diagnosis, and treatment of human disease. However, there is still a critical need for disease-relevant medical research. The Department of Defense's (DOD) Congressionally Directed Medical Research Programs (CDMRP), which originated about 10 years ago, has become a leader in funding innovative, scientifically meritorious research in the fields of breast, prostate, and ovarian cancers, and neurofibromatosis. In addition, the CDMRP has recently initiated programs in tuberous sclerosis, chronic myelogenous leukemia, and prion disease research. The CDMRP strives to complement other funding agencies by sponsoring research that fosters new directions for, addresses neglected issues in, and brings new investigators into targeted diseases. This Annual Report highlights the programs that are currently being managed by the CDMRP.

The CDMRP was created in response to the concerns of individuals living with breast cancer. Congress appropriated \$25M in FY92 for breast cancer research, and the efforts of grassroots advocacy organizations resulted in a \$210M appropriation in FY93 for the establishment of a "peer-reviewed breast cancer research program with the Department of the Army as executive agent." Based on recommendations from a 1993 Institute of Medicine (IOM) report, the CDMRP developed a unique proposal review model consisting of scientific (peer) review and programmatic review. While peer reviewers primarily evaluate the scientific and technical merit of proposals, programmatic reviewers focus on factors such as innovation and relevance to the program's goals.

Since FY93, the CDMRP has acquired seven additional core research programs, which focus on prostate cancer, ovarian cancer, neurofibromatosis, tuberous sclerosis, chronic myelogenous leukemia, prion disease, and biomedical issues directly relevant to military health. Each of these programs is executed according to the two-tier model described in the 1993 IOM report. Consumer advocates are an integral part of the review process and program execution, serving as full voting members on both peer and programmatic review panels. I believe that the alliance of consumer advocates, basic and clinical research scientists, and the DOD is critical to the success of the programs managed by the CDMRP.

I would like to express my deepest gratitude to the following individuals for their participation in the CDMRP:

- Disease survivors, family members, and consumers whose courage and commitment led to the creation of these programs. They continue to infuse the CDMRP with passion, inspiration, and vision.
- The scientists and clinicians funded by the program who are facing the challenges of improving the lives and health of all people. They are our greatest hope for preventing, controlling, and curing these diseases.
- Members of the CDMRP's Integration Panels (i.e., advisory committees), past and present, who crafted comprehensive programs over the past 10 fiscal years of funding. The dedication and skill of these panel members are evidenced by their many accomplishments, which include setting investment strategies and conducting programmatic review of proposals on a yearly basis.

- Members of the CDMRP's peer review panels, who have met the daunting task of reviewing more than 21,000 proposals since FY93. Without their expertise and perseverance, the CDMRP goal of funding highly meritorious research could not have been accomplished.
- The many members of the DOD, the U.S. Army Medical Research and Materiel Command, the CDMRP Program Management Teams, and support staff whose constant enthusiasm and diligence sustain the research programs on a daily basis.

I am grateful for the integrity, vision, and devotion shown by these dedicated individuals. They have crafted innovative and vital programs that continue to forge new pathways in the management and execution of biomedical research.

Sincerely,

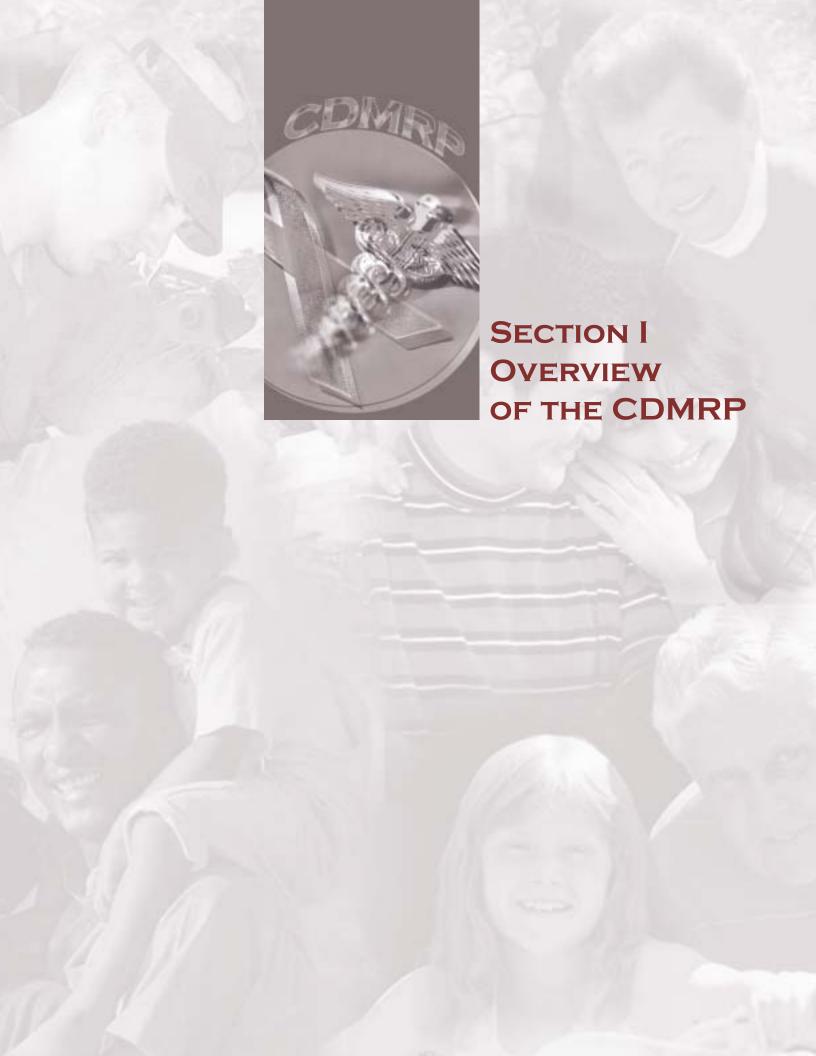
Kenneth A. Bertram, M.D., Ph.D. Colonel, US Army Medical Corps

Kenneth a. Bertran

Director

TABLE OF CONTENTS

Executive Summaryvii	VI. Ovarian Cancer Research Program	XI. Other Programs Managed by the CDMRP
I. Overview of the CDMRP	The DiseaseVI-2	BackgroundXI-2
History/EvolutionI-2	Program BackgroundVI-2	Alcoholism ResearchXI-2
Programs Managed by the CDMRPI-2	FY01 ProgramVI-3	Anthropod-Borne Infectious Disease
Program Execution and ManagementI-6	The Vision for the FY02 ProgramVI-3	Control ResearchXI-2
PartnershipsI-7	Scientific Outcomes and AdvancesVI-4	Cancer Center of ExcellenceXI-3
CDMRP Research Information	SummaryVI-9	Cancer ResearchXI-3
Dissemination – Propagating	FY02 Integration Panel MembersVI-9	Center for Prostate
the WordI-10	1102 megranon ranci memberovr	Disease ResearchXI-3
II ODBADD A	VII. Peer Reviewed Medical	Fragile X ResearchXI-3
II. CDMRP Accomplishments	Research Program	Gallo Cancer CenterXI-4
BackgroundII-2	Military RelevanceVII-2	Hepatitis C ResearchXI-4
Advances in Management	Program BackgroundVII-2	Lung Cancer ResearchXI-4
Execution StrategiesII-2	FY01 ProgramVII-3	Monoclonal Antibodies,
CDMRP Award Opportunities – Thinking Outside the BoxII-4	The Business Strategy for the	Massachusetts Biological LabXI-4
Outreach and CommunicationII-6	FY02 ProgramVII-3	
Scientific AchievementsII-8	Scientific Outcomes and AdvancesVII-4	Appendix A
	SummaryVII-5 Joint Programmatic	Fiscal Years 92-01 SummaryA-1
III. Breast Cancer	Review Panel MembersVII-6	Appendix B
Research Program	Review Failer Members	FY01 and FY02 Congressional
The DiseaseIII-2	VIII. National Prion	AppropriationsB-1
Program BackgroundIII-2	Research Program	1461.061.001.001.001.001.001.001.001.001.0
FY01 ProgramIII-3	The DiseaseVIII-2	Appendix C
The Vision for the FY02 ProgramIII-5	Program BackgroundVIII-2	USAMRMC Office of the
Scientific Outcomes and AdvancesIII-6	The Vision for the FY02 ProgramVIII-3	Congressionally Directed Medical
SummaryIII-8	SummaryVIII-3	Research Programs Staff
FY02 Integration Panel MembersIII-8	FY02 Integration Panel MembersVIII-4	Appendix D
IV. Prostate Cancer	IX. Chronic Myelogenous Leukemia	AcronymsD-1
Research Program	Research Program	neronymo
The DiseaseIV-2	The DiseaseIX-2	
Program BackgroundIV-2	Program BackgroundIX-2	
FY01 ProgramIV-2	The Vision for the FY02 ProgramIX-2	
The Vision for the FY02 ProgramIV-4	SummaryIX-2	
Scientific Outcomes and AdvancesIV-4	FY02 Integration Panel MembersIX-3	
SummaryIV-9		
FY02 Integration Panel MembersIV-9	X. Tuberous Sclerosis Complex Research Program	
V. Neurofibromatosis	The DiseaseX-2	
Research Program	Program BackgroundX-2	
The DiseaseV-2	The Vision for the FY02 ProgramX-2	
Program BackgroundV-2	SummaryX-2	
FY01 ProgramV-3	FY02 Ad Hoc Programmatic	
The Vision for the FY02 ProgramV-4	ReviewersX-2	
Scientific Outcomes and AdvancesV-4	25.2511010101111111111111111111111111111	
SummaryV-7		
FY02 Integration Panel MembersV-7		



HISTORY/ EVOLUTION

As a result of increased public awareness and the work of highly visible grass roots advocacy organizations, the U.S. Congress directed the Department of Defense (DOD) to manage intramural and extramural research programs that focus on specific diseases. The U.S. Army Medical Research and Materiel Command (USAMRMC)¹ first received \$25 million (M) for breast cancer research in fiscal year 1992 (FY92). The following year, Congress appropriated \$210M for breast cancer research to be administered by the DOD. The Office of the **Congressionally Directed Medical** Research Programs (CDMRP) was established within the USAMRMC to execute the congressional appropriations for breast cancer research, now



known as the DOD Breast Cancer Research Program (BCRP). Congress has continued to appropriate funds to the BCRP every year since its inception, as well as funds for research in many other areas including prostate cancer, ovarian cancer, neurofibromatosis, and defense women's health.

To effectively manage the \$210M appropriation received in FY93, the Army sought the advice of the National Academy of Sciences (NAS). In response, the NAS Institute of Medicine (IOM) issued a report entitled Strategies for Managing the Breast Cancer Research Program: A Report to the U.S. Army Medical Research and Development Command. The IOM committee made several major recommendations in this report. First, the committee recommended an annual investment strategy to guide allocations of funds that best address current needs in breast cancer research. Second, the committee recommended a two-tier review strategy consisting of scientific peer review and programmatic review. Both of these recommendations have become cornerstones in the administration of most of the programs managed by the CDMRP. Upon receipt of a congressional appropriation for a specific research area, an investment strategy is developed to address opportunities presented by scientific trends and new discoveries that will advance research toward the eradication of the specific disease. This annual investment strategy is developed by

an Integration Panel (IP), an expert panel of scientists, clinicians, and consumer advocates. The IP is also responsible for conducting programmatic review, the second tier of review. The review process used by the CDMRP was designed to ensure that the research portfolio reflected not only the most meritorious science, but also the most programmatically relevant. Further descriptions of the IP and the two-tier review process are in this section under Program Execution.

PROGRAMS MANAGED BY THE CDMRP

The CDMRP currently manages 18 separate programs that total almost \$2.3 billion (B) in congressional appropriations. Eight of the 18 programs are considered core programs. Core programs are characterized by standing IPs and have either received or have the potential to receive multiple appropriations. Three of the eight core programs are new to the CDMRP in FY02. The other 10 programs managed by the CDMRP are characterized by a one-time appropriation and/or are institutionally based programs. Although the programs within the CDMRP share many common features, each program is unique and emphasizes the specific needs of its research and advocacy communities. Highlights of each of the 8 ongoing core programs follow. See Section XI for more information on the other programs.

¹ Known as the U.S. Army Medical Research and Development Command prior to 1995.

Breast Cancer Research Program

The DOD BCRP vision is to eradicate breast cancer. As the second largest funder of extramural breast cancer research in the world, the program has managed approximately \$1.37B in appropriations from FY92-02. In addition, the BCRP is also a recognized leader in innovative program management. Over the past 10 years, a multidisciplinary research portfolio (Figure I-1) has been supported that encompasses a wide spectrum of projects spanning prevention, detection, diagnosis, and treatment. Research awards supported through this program are leading to the eradication of breast cancer by supporting innovative ideas, training future generations of scientists and clinicians, providing necessary infrastructure, and bringing bench research to the bedside. Through FY01, the BCRP has received over 16,500 proposals and has made 3,217 awards. More detailed information regarding the BCRP is in Section III.



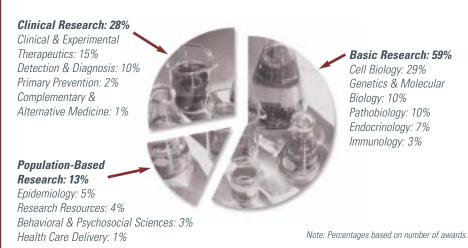


Figure I-1. FY92-01 BCRP Portfolio by Research Area

Prostate Cancer Research Program

The DOD Prostate Cancer Research Program's (PCRP) vision is to conquer prostate cancer. The PCRP, established in FY97, marks its sixth year in FY02. As a major funder of prostate cancer research, the PCRP has been responsible for the management of \$395M in appropriations through FY02. The PCRP has supported innovative, multidisciplinary basic and clinical research

relevant to prostate cancer (Figure I-2). In addition, the PCRP is committed to addressing the significant disparities in the incidence and mortality of prostate cancer that exist among different ethnic groups, and it has designed award mechanisms to stimulate research in these areas. For the first 5 years of this program, more than 2,700 proposals have been received that have led to 651 awards. The PCRP is described in greater detail in Section IV.

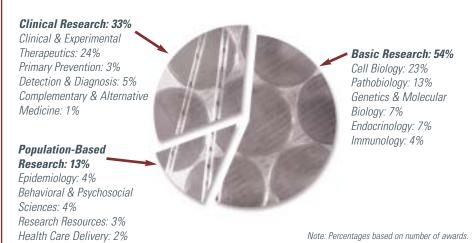


Figure I-2. FY97-01 PCRP Portfolio by Research Area

Neurofibromatosis Research Program

The DOD Neurofibromatosis Research Program's (NFRP) vision is to decrease the impact of neurofibromatosis (NF). As a leader in the support of NF research, the NFRP has managed \$90.3M in congressional appropriations for FY96-02. The NFRP has supported a multidisciplinary portfolio that encompasses basic, clinical, and population-based projects (Figure I-3) on both NF1 and NF2. In recent years, emphasis has been placed on increasing the number of clinical trials. Part of this clinical foundation includes large natural history studies/consortium awards and awards to support the development and evaluation of preclinical model systems. For the first 6 years of this program, the NFRP has received 223 proposals that have led to 85 awards. Further details on the NFRP appear in Section V.

Ovarian Cancer Research Program

The DOD Ovarian Cancer Research Program's (OCRP) vision is to prevent ovarian cancer. Appropriations for the FY97–02 OCRP total \$61.7M. The OCRP has built a multidisciplinary portfolio (Figure I-4) that emphasizes ovarian cancer research infrastructure through Program Project Awards. These awards promote innovative research and collaborations across disciplines and institutions. In addition, Program Project Awards encourage new

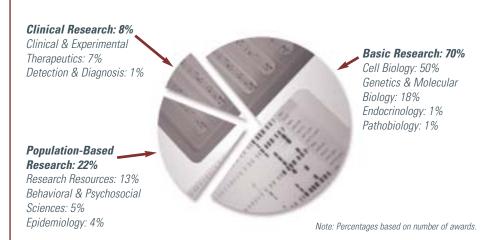


Figure I-3. FY96-01 NFRP Portfolio by Research Area

investigators to pursue research in the ovarian cancer field. Six research areas have been emphasized: etiology, prevention, early detection/diagnosis, preclinical therapeutics, quality of life, and behavioral studies as related to ovarian cancer and/or primary peritoneal carcinoma. In the first 5 years of the program, 374 proposals have been received and 45 awards have been made. More detailed information regarding the OCRP appears in Section VI.

Peer Reviewed Medical Research Program

The DOD Peer Reviewed Medical Research Program's (PRMRP) mission is to support research on issues with direct relevance to military health. Appropriations for the FY99–02 PRMRP total \$144.5M. Since the program was established in FY99, the PRMRP has built a portfolio of research that covers 24 topic areas relevant to military health (Figure I-5). An important feature in the execution of this program is the

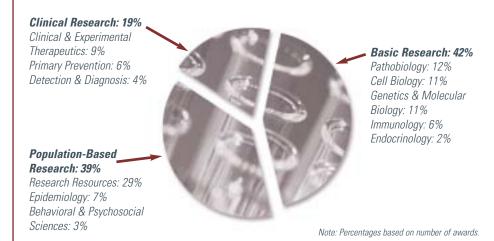


Figure I-4. FY97-01 OCRP Portfolio by Research Area

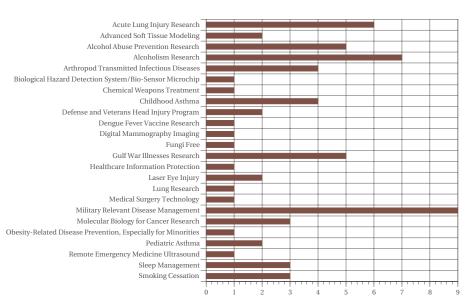


Figure I-5. FY99-01 PRMRP Portfolio by Topic Area

use of an advisory panel composed of representatives from the Army, Navy, Air Force, Marines, Department of Veterans Affairs, Office of the Assistant Secretary of Defense (Health Affairs), and U.S. Department of Health and Human Services to develop an investment strategy and conduct programmatic review. In the first 3 years of the program, 436 proposals have been received and 67 awards have been made. The PRMRP is described in more detail in Section VII.

National Prion Research Program

The DOD National Prion Research Program's (NPRP) vision is to eliminate the occurrence of human transmissible spongiform encephalopathies. It is the largest of the three new FY02 core programs managed by the CDMRP and was established by a congressional appropriation of \$42.5M. The goal of the NPRP is to develop a rapid, sensitive, and reproducible test for the detection of prions suitable for use both as an

ante-mortem diagnostic test and a screening assay. In support of this goal, additional topics of interest include the prevention, transmission, and pathogenesis of transmissible spongiform encephalopathies as well as a better understanding of chronic wasting disease. Five different award mechanisms are being offered in FY02, as depicted in Figure I-6. Further information on the NPRP appears in Section VIII.

Chronic Myelogenous Leukemia Research Program

The DOD Chronic Myelogenous Leukemia Research Program's (CMLRP) vision is to perfect the existing treatments and develop new diagnostic and therapeutic approaches for CML. It was established in FY02 with a \$5M appropriation for research on chronic myelogenous leukemia. The CMLRP will support research that will lead to the substantial improvement in the understanding, diagnosis, and treatment of chronic myelogenous leukemia, and enhance the quality of life of persons with the disease. The CMLRP is described in more detail in Section IX.

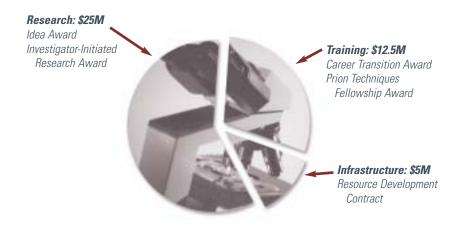
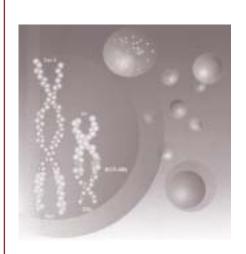


Figure I-6. FY02 NPRP Investment Strategy



Tuberous Sclerosis Complex Research Program

The DOD Tuberous Sclerosis Complex Research Program's (TSCRP) vision is to lessen the impact of tuberous sclerosis. It was established by a \$1M appropriation in FY02 for tuberous sclerosis research. In accordance with the directives received from Congress, the FY02 TSCRP is supporting innovative research directed toward a better understanding of the role and function of proteins produced by the TSC1 and TSC2 tumor suppressor genes. More detailed information regarding the TSCRP is in Section X.

PROGRAM EXECUTION AND MANAGEMENT

An important feature of the CDMRP is its ability to adapt to the current needs of the research, clinical, and consumer communities. The CDMRP can accomplish this because it utilizes, and has refined over years, an effective program execution and management strategy.

The CDMRP uses a flexible 7-year execution and management cycle that spans all phases of program execution, from the development of a vision through the completion of research grants (Figure I-7). All programs within the CDMRP depend upon yearly, individual congressional appropriations. These funds are not in the President's budget; Congress adds them annually to the DOD



Figure I-7. CDMRP Flexible Execution and Management Cycle

appropriation to fund new programs or to augment existing DOD or Army programs. The effectiveness of the programs, the work of consumer advocates, and the need for additional, focused biomedical research have led to continuing appropriations for programs managed by the CDMRP.

Early Program Planning

Early in each fiscal year, after the congressional appropriation has been signed into law and funds have been received by the USAMRMC, an IP for each of the core programs is convened to deliberate issues and concerns unique to the program and establish a vision and investment strategy for the coming year. The development of an annual investment strategy stems from the 1993 IOM recommendations¹ and provides a high degree of flexibility. It allows each program to identify underfunded

and underrepresented areas of research and to encourage research in those areas that are considered the most critical to patients, consumers, clinicians, and laboratory researchers. The investment strategy provides the framework and direction necessary to most effectively obligate each congressional appropriation in the most efficient manner possible. (See Appendices A and B for a summary of congressional appropriations by program.)

Program Development and Execution

A critical component of the investment strategy is developing specific award mechanisms that capture the current needs of both the research and advocacy communities. Separate announcements outlining the award mechanisms offered for each program managed by the CDMRP are released each fiscal year. Award mechanisms cover a broad spectrum; for example, the BCRP pioneered the Idea Award mechanism that encourages the development of innovative ideas at a stage in research prior to the development of preliminary data. Other programs, such as the OCRP, have emphasized Program Projects to encourage infrastructure building. The CDMRP has utilized almost 40 different types of award mechanisms that fall into three categories: research, training and recruitment, and infrastructure.2 Proposals received in response to published announcements are

¹ Institute of Medicine, Strategies for Managing the Breast Cancer Research Program: A Report to the U.S. Army Medical Research and Development Command, 1993.

² For a summary of many of the award mechanisms offered by the CDMRP, see the DOD CDMRP Annual Report, September 1999 (Appendix A).

subjected to a two-tier review. The CDMRP model for performing these reviews derives from the 1993 IOM recommendations.³ The two tiers are fundamentally different. The first tier is a scientific peer review of proposals against established criteria for determination of scientific merit. Panels organized by scientific discipline, specialty area, or award mechanism conduct scientific peer review. The primary responsibility of the scientific peer review panels is to provide unbiased, expert advice on the scientific and technical merit of proposals, based upon the review criteria published for each award mechanism. Consumers are members of scientific peer review panels; they strengthen the panels by bringing the patient perspective to the assessment of science and to the relevance of research. The second tier of the review process is programmatic review. Programmatic review is accomplished by the IP, the advisors that recommend the initial investment strategy. Programmatic review is a comparison-based process in which proposals from multiple research areas compete in a common pool. Scientifically sound proposals that most effectively address the unique focus and goals of the program are then recommended to the Commanding General, USAMRMC, for funding. Award negotiations then ensue, principal investigators receive their funds, and research begins.

Grants Management

Awards are made in the form of grants, contracts, or cooperative agreements, and the research is executed over 1 to 5 years, depending on the type of award mechanism. With 4,180 awards made through FY01, the management of these grants, contracts, and/or cooperative agreements has become a major area of activity within the CDMRP. The CDMRP has expanded its grant management division to ensure that the research supported by tax dollars is monitored thoroughly for technical progress and compliance. To accomplish this task, the CDMRP grant managers review annual and final progress reports submitted by funded investigators, conduct site visits to institutions, and maintain files and databases on each funded proposal. These efforts collectively enable the CDMRP to evaluate progress, publications, and products, as well as harvest and disseminate information on research accomplishments. Highlights of such research accomplishments are included under the individual program sections.

PARTNERSHIPS

Public, private, government, and military partnerships occur in all aspects of the programs and have been key to the success of the CDMRP. We believe that these effective partnerships are leading us closer to finding cures for many diseases and are facilitating our ability to effectively address critical health issues. In the past year, the CDMRP has continued to enhance existing partnerships and form new relationships. Highlighted below are three important partnerships that play a central role in helping to shape the future of health care to prevent, control, and cure diseases.

Consumers and the CDMRP

The CDMRP is a recognized leader in integrating consumers in virtually all aspects of program execution. The value of consumer involvement is derived from their firsthand experiences with the disease. This adds a perspective, passion, and a sense of urgency, which ensures that the human dimension is incorporated in program policy, investment strategy,



³ Institute of Medicine, Strategies for Managing the Breast Cancer Research Program: A Report to the U.S. Army Medical Research and Development Command, 1993.

OVERVIEW OF THE CDMRP

and research focus. Consumers for most of the core programs are survivors of the disease and representatives of consumer advocacy organizations. For programs such as the NFRP, consumers are either individuals with the disease or their family members and representatives of consumer advocacy organizations.

Consumers have been active partners since the CDMRP was established in FY93, in which they served on the first IP for the BCRP. Today, consumers serve on all CDMRP IPs, are voting members on scientific peer review panels, and are active participants in executing some research projects. For example, consumers are active members of research project advisory boards, assist in patient recruitment, and promote public education. Thus, it is evident that in the changing world of science administration and management, it is vitally important to foster partnerships among the research managers, scientists, and those who are ultimately most affected by policy and research.

The CDMRP has emphasized the

publication and presentation of its

experiences with consumer involve-

ment. Recent publications include:

Andejeski, Y., Breslau, E. S., Hart, E., Lythcott, N., Alexander, L., Rich, I., Bisceglio, I., Smith, H. S., Visco, F. M., and the U.S. Army Medical Research and Materiel Command Fiscal Year 1995 Breast Cancer Research Program Integration Panel (2002). Benefits and drawbacks of including consumer reviewers in the scientific merit review of breast cancer research. Journal of Women's Health and Gender-Based

Medicine, 11(2):119-136.

Andejeski, Y., Bisceglio, I., Dickersin, K., Johnson, J. E., Robinson, S., Smith, H. S., Visco, F. M., Rich, I. M., and the USAMRMC Fiscal Year 1995 Breast Cancer Research Program Integration Panel (2002). Quantitative impact of including consumers in the scientific review of breast cancer research proposals. Journal of Women's Health and Gender-Based Medicine, 11(4):379–388.



For more information on consumer involvement and serving as a consumer reviewer in the first tier of review, peer review, see the consumer page on the CDMRP web site (http://cdmrp.army.mil).

Military Initiatives

The military continues to be a central partner in all aspects of the CDMRP. The first example of a military partnership can be reflected in the day-to-day coordination and administration of the CDMRP. A dedicated team of individuals, including military personnel and civilian and contractor staff, is responsible for executing the congressional directives for targeted diseases and works together to implement each program's unique vision.

Additionally, several past and current programs managed by the CDMRP have a unique military focus. For instance, research sponsored by the Peer Reviewed Medical Research Program aims to improve the health of our military forces. The guiding body that determines programmatic priorities for this program is called the Joint Programmatic Review Panel (JPRP). The JPRP is composed of



OVERVIEW OF THE CDMRP

representatives from all branches of the military, including the Army, Air Force, Navy, Marine Corps, Department of Defense (Health Affairs), Department of Health and Human Services, and Department of Veterans Affairs. Another program currently managed by the CDMRP, the National Prion Research Program, also incorporates a unique military focus. Prion disease encompasses a family of related diseases that has been documented in a number of mammalian species including humans, develops progressively over a period of many years, and is invariably fatal. The health threats posed by prion disease currently appear to involve food and possibly blood supplies, including those in overseas deployment zones. Because of this remarkable military threat, representatives from the military also serve on the guiding body that

determines programmatic priorities for this program.

Finally, the CDMRP partners with the military to support research that benefits both the military and the targeted diseases supported by programs managed by the CDMRP through the Small Business Innovation Research (SBIR) Program.⁴ This program is designed to encourage scientific and technical innovation in specific topic areas identified by the DOD, through the support of research at small businesses. In FY01, the DOD SBIR Program accepted four topic areas submitted by the CDMRP for inclusion in the program solicitation. Six Phase I contracts were awarded in the following areas: (1) Development of an Imaging Technique to Identify Angiogenesis; (2) Development of Cellular Profiles Using Microarrays and Nanosensors for the Detection of

Cancer; (3) Development of a Vaccine for the Treatment and/or Prevention of Cancer; and (4) Development of a Serum-Based Biomarker for the Detection of Cancer.

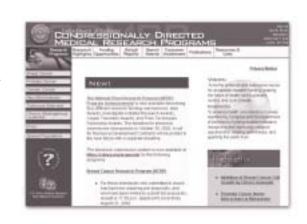
Scientific Community

The scientific community is an essential partner in assisting the CDMRP to shape the future of health care. The fulfillment of program goals requires the cooperation and communication across multiple scientific and clinical disciplines. Since its inception, the CDMRP has supported innovative, interdisciplinary approaches and collaborations in the scientific community to tackle the complex causes of disease, and to translate this knowledge to improved disease prevention, patient survival, and quality of life. Whether it is the individual scientist or the team of experts, every investigator

CDMRP Web Site (http://cdmrp.army.mil)

The CDMRP web site is a primary means to quickly disseminate information and is continuously updated to provide the most current information to the public. More than 85,000 visits to this web site are made annually. The CDMRP web site contains information on:

- ♦ Individual programs managed by the CDMRP, including vision, mission, and funding history
- ♦ Funding opportunities a call to the scientific and clinical communities to submit proposals
- Program Announcements that detail the specific instructions on how to submit a proposal
- Lists of awards for each program by year, with associated abstracts and publications generated from those awards
- ♦ Research highlights that summarize notable scientific discoveries and breakthroughs by investigators supported by the CDMRP
- Search engines for posted awards that search by award mechanism, key words, research area, investigator, institution, clinical trial, or geographic location
- Publications and documents such as press releases, fact sheets, and CDMRP Annual Reports
- ♦ Links to other sites



⁴ The SBIR Program is mandated by Public Laws 97-219, 99-43, and 102-564.

funded by the CDMRP is part of the partnership in the war against disease. Specific examples of scientific partnerships and collaborations supported by the CDMRP include the following:

- Program Projects Awards, a hallmark of the OCRP, have been used over several fiscal years to encourage new partnerships and to build new ovarian cancer research foundations.
- Consortium Development Awards offered by the PCRP are aimed at promoting multidisciplinary/multiinstitutional collaborations that focus on a critical area of prostate cancer research.
- The BCRP has supported several different awards that foster partnerships and collaborations in the scientific community. The goals of these collaborative award mechanisms include: establishing both multidisciplinary teams of researchers and consumers to develop new models for performing clinical trials; examining important behavioral science questions; establishing partnerships that will accelerate the delivery of novel breast cancer

- therapeutics and chemopreventives; and accelerating the solution of overarching problems in breast cancer.
- The NFRP has promoted multicenter Natural History Consortium Awards to generate the information needed to perform clinical trials.

CDMRP RESEARCH INFORMATION DISSEMINATION — PROPAGATING THE WORD

The CDMRP recognizes the importance of disseminating program information to the public and has supported several efforts to foster program awareness.

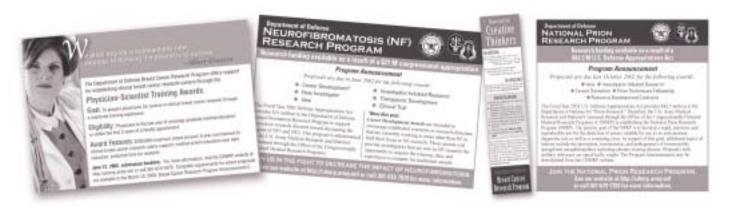
http://cdmrp.army.mil

The CDMRP web site disseminates program information to the public and research community. This valuable resource is continually being updated. Additional details about the CDMRP web site appear on the previous page.

Advertisement of Funding Opportunities

Programs within the CDMRP prepare and issue Program Announcements that provide details on the annual award mechanisms, the application process, and requirements for submitting proposals. The following publicity efforts are directed toward alerting the scientific research community when new Program Announcements are released.

- Posting the Program Announcement to the CDMRP web site to enable immediate access.
- Alerting over 200 institutional Sponsored Program Offices of upcoming award opportunities.
- Advertising in both broadly focused professional journals (e.g., Science) and in business journals (e.g., FedBizOpps).
- Targeted advertising for some new mechanisms that are aimed toward recruiting new applicants or scientists in specific research areas. For example, the FY02 BCRP advertised many of their new mechanisms in targeted journals including the Biotechnology Clinical Partnership Award (*BioWorld*) and the Physician-



Scientist Training Award (Cancer Research, Journal of National Cancer Institute, and Cancer Letter).

- Sending e-mails and postcards to prior applicants, scientific peer reviewers, and individuals who have requested that their names be placed on the CDMRP mailing list. For the FY02 programs, over 23,000 e-mails and postcards were sent to potential applicants.
- Sending press releases to *The Cancer Letter, Washington FAX, UniSci Daily University Science News, Science Daily Magazine, The Blue Sheet,* etc.
- Notifying web sites that specialize in biomedical grant notification (e.g., Community of Science, Science: The Next Wave, and Texas Research Administrators Group database).
- Sending press releases to scientific professional associations (e.g., the American Association of Cancer Research [AACR], the American Society of Clinical Oncology), the military press, military research laboratories, other federal agencies, federal web sites maintaining funding information, and consumer advocacy organizations.
- Exhibiting the CDMRP display at national scientific meetings such as the AACR and the Federation of American Societies for Experimental Biology.

Publications

The CDMRP encourages the exchange of published information. First, over 4,000 publications have resulted from investigators who received CDMRP awards through FY00. These publications are provided to the CDMRP by award recipients and are posted on the CDMRP web site. Second, the CDMRP staff has published articles and presented information at national scientific meetings. One recent example is the 2002 Clinical Cancer Research article, "Department of **Defense Congressionally Directed** Medical Research Programs: Innovations in the federal funding of biomedical research" (Young-McCaughan, S., Rich, I. M., Lindsay, G. C., Bertram, K. A., 8(4):957–962).

Multidisciplinary Meetings

Several multidisciplinary meetings have been held to disseminate research results supported by the CDMRP. For instance, the BCRP has held three multidisciplinary Era of Hope meetings in 1997, 2000, and 2002 to provide a forum in which thousands of scientists, physicians, health care providers, and consumers communicated ideas and promising new directions in breast cancer research with peers and a wide audience of stakeholders. These multidisciplinary meetings provided an unprecedented opportunity to highlight the contributions of the BCRP grantees in pushing the boundaries and advancing discoveries in breast cancer research, and to reflect on promising, innovative avenues of research for the future. For additional details about the Era of Hope 2002, refer to the box story in Section III, page III-5 of this report. Further, the OCRP had a similar, although much smaller, meeting held in November 2000, in which awardees from the FY97-98 programs presented their findings. These open exchanges of information present platforms to disseminate program information and develop future collaborations.

