



*Accelerating
the
Search
for a
Cure*

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MYELOMA FOCUS

Newsletter of the

MMRF

Millennium, Ferraro and a Former New England Patriot to be Honored in Boston

Bob Kraft, owner of the 2002 Super Bowl Champion New England Patriots, will serve as Honorary Chair for the Boston Spring Awards Dinner -- a collaborative fundraising and awareness-building event between the MMRF and the Dana Farber Cancer Institute. This event will be held at the Fairmont Copley Plaza in Boston on April 3, 2002. Mr. Kraft has been a long-time supporter of blood cancer related research.

The MMRF will present Millennium Pharmaceuticals with its Corporate Leadership Award. The award will be accepted by Mark Levin, Chairman and CEO for the company's development of protease inhibitor PS-341, a compound showing promise in combating multiple myeloma. Phase III clinical trials for PS-341 are to begin this spring. Researchers are cautiously optimistic that this compound may soon be available as a new treatment option for myeloma patients everywhere.

The event promises to be inspirational as two myeloma patients are being honored for their efforts and commitment to helping raise awareness and promote increased funding for myeloma research. Geraldine Ferraro, who made history in 1984 as the nation's first female vice-presidential candidate, will be honored with MMRF's Advocacy Award for her efforts in turning her own battle with multiple myeloma into a remarkable career of advocacy on behalf of all myeloma patients.

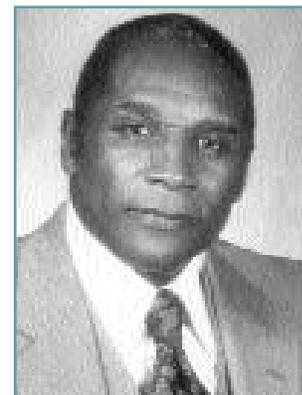


Geraldine Ferraro

Ron Burton, a former New England Patriot running back, will be presented with MMRF's 2002 Public Awareness Award for his efforts to raise public awareness of the disease. Mr. Burton has gained international distinction as a philanthropist and motivational speaker. He is an executive consultant of corporate communications with John Hancock and is the Executive Director of the Ron Burton Training Village, a non-profit life-skill development training camp for inner-city youth.



Mark Levin



Ron Burton



Welcome Letter

Families Funding Research

Dear Friends,

Four years ago, the Multiple Myeloma Research Foundation was founded under a focused mission to promote and support research that would lead to the treatment and cure of multiple myeloma. As the result of our unwavering commitment to this cause, we have seen an ever-growing pool of research focused on the disease.

In the past five years alone, patients have gone from having relatively few options to considering stem cell transplants, Thalidomide and new therapies now in clinical trials. All of these options bring a good deal of confusion and a heightened need to enable patients to make informed decisions about therapies and trials that are right for them.

To serve this need, the MMRF is proud to be launching the Clinical Trials Monitor (CTM) -- the first-ever comprehensive multiple myeloma-focused web based search engine. Searches for trials will identify single institution and pharmaceutical trials by disease stage, trial location and type of therapy. This resource provides a clear map for patients and community oncologists to navigate through the maze of trial information.

Allowing patients and clinicians to make swift and informed decisions about therapies and trials, CTM will lead to improved testing of new compounds and therapies and eventually to enhanced outcomes for patients. In this way, it is a direct investment in finding a cure, and goes hand in hand with the founding mission of the MMRF.

Thank You,



Children can make all the difference in this world. The MMRF is proud to be the recipient of the most thoughtful donations made by two remarkable young men: Joshua Abrahms Bertsch from Needham, MA and Eric J. Stewart from Oak Hill, VA. Joshua donated 20% of his Bar Mitzvah gifts to the MMRF. He sent the money in honor of his uncle, Bill Bertsch, who could not attend his Bar Mitzvah as he was home recuperating from a bone marrow transplant.

Eric J. Stewart asked his friends to celebrate his 10th birthday by making donations to the MMRF. He wrote to tell us that "My mom has had multiple myeloma for the past seven years and I wanted to do something to help find a cure." When his mother, Mary Stewart, discovered that she had multiple myeloma at 41 years of age in 1994, her family and coworkers rallied around her to help her fight the disease. Mary found the Multiple Myeloma Research Foundation to be a great help in finding out about myeloma research and acquiring information about the cancer.

Husband Eric; Angela, age 13; Eric and Elizabeth, age 10; have donated generously to helping the MMRF find a cure for multiple myeloma. Mary says she chose the MMRF because she felt the organization is well structured and continues to put emphasis on the most important issues. "I admire the amount of the donated dollar that goes to actual research," says Mary. "I feel they have some great research projects underway. Kathy Giusti has been very effective and committed to raising money for the cause of multiple myeloma."

A lot of helpful information was found through the MMRF web site and Mary commented that the seminars offer very focused and in-depth information. "I feel that research must be a priority until a cure is found, but education is important as well. When I say 'myeloma' many people mistake it for 'melanoma.' While most people know about leukemia, lymphoma and melanoma, myeloma is less well-known."

Thanks to these two selfless young men and their families and to organizations like the MMRF, progress is being made in the search for a cure for multiple myeloma.

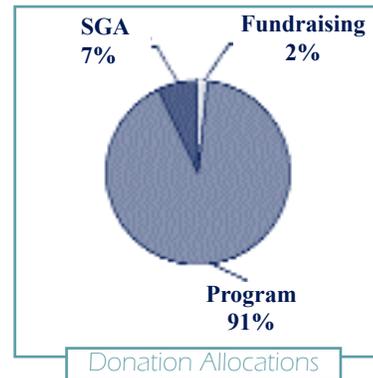


OVER \$5 MILLION RAISED FOR RESEARCH

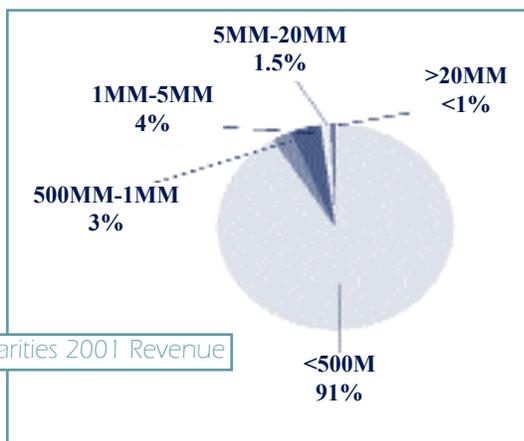
The MMRF Once Again Surpasses Expectations

The Multiple Myeloma Research Foundation (MMRF) is pleased to announce that we have once again surpassed expectations in raising an unprecedented \$5.1 million in 2001 - an astonishing four-year milestone for the organization. Despite the flagging economy, the MMRF has experienced fantastic growth, allowing us to achieve in four years what most organizations can only hope to achieve in 10 years. Our success has only strengthened our resolve to forge new ground in the fight against multiple myeloma.

The chart below signifies the annual funds raised by voluntary health organizations in the United States on an annual basis. An astonishing 91% of all voluntary health non-profits in the U.S. raise less than \$500,000 each year. Organizations that raise more than \$500,000 and less than \$5 million is a total of 7%. Our success in raising more than \$5 million dollars in 2001 is an incredible accomplishment and now places the MMRF in the top 2.5% of all U.S. voluntary health organizations in terms of funds raised annually. The MMRF is now the world's leading private funding organization of multiple myeloma research.

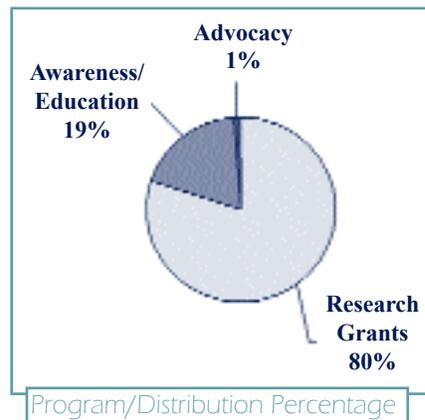


The MMRF was founded on the premise that sound financial management was imperative to achieve strong growth and longevity. Our Board demands fiscal integrity and is committed to maintaining our high level of fiscal responsibility. As shown in the Donations Allocation Chart (above), 91% of each dollar raised is applied to programming. Our fundraising costs are stellar with only 2% used to help raise funds. Our operating/administrative expenses are also a low 7% of our expenses, primarily because of the commitment the Foundation has to utilizing the services of volunteers, both locally and nationally. Our volunteer-driven support helps offset expenses by allowing volunteers to take on a variety of tasks, including fundraising, administrative help and advocacy work that many organizations hire staff to do.



Last year's superlative gains are a direct result of the support from the many individuals, foundations, corporations and organizations that support our efforts. We truly believe we are

The Program/Distribution Chart (right) clearly demonstrates MMRF's serious commitment to maximizing donated dollars. We apply over 90% of the money we raise toward our programming efforts, with 80% of that applied directly to research grants. In 2001, the MMRF celebrated a banner funding year. We committed \$4 million in grant awards toward multiple myeloma research and rolled out a \$1.5 million collaborative research program grant geared to facilitate a synergistic and comprehensive approach in conducting research. The MMRF applied 19% of the funds toward educational programming and awareness efforts and 1% toward advocacy work.



on the cusp of a cure and we need your continued help and support if we are to further accelerate the search for a cure. Now, more than ever, it is important for you to continue your support. A dollar donated today is a dollar closer to a cure.



MMRF RACE FOR RESEARCH

Help Raise Funds For Myeloma Research at The MMRF Race For Research 5K Walk/Runs

MMRF Race for Research 5K Walk/Runs are fun and exciting grass-roots fundraising events where people of all ages can participate. These events help to raise funds for myeloma research and raise awareness of myeloma in local communities across the United States. Gather family, friends and co-workers and participate in an event near you. There are several MMRF Race for Research 5K Walk/Runs scheduled this year:



Myrtle Potter

MMRF Race For Research – San Francisco

Join Genentech, Inc. and SCIOS, Inc. on Sunday, April 14, for the MMRF Race for Research 5K Walk/Run at Crissy Field, Golden Gate National Recreation Area, San Francisco. Honorary co-chairs Myrtle Potter, Genentech, COO and Richard Brewer, SCIOS President and CEO invite all Bay Area patients, family members and their friends to participate in this fun and exiting fundraising event. The event begins at 8:00 am.

Register online at

www.active.com/event_detail.cfm?event_id=989230

or download registration pledge forms at

www.multiplemyeloma.org/events/funds.html



Richard Brewer

MMRF Race For Research - Seattle

Join Cell Therapeutics, Inc. (CTI) and Event Chair, Mr. James A. Bianco, M.D., President and CEO of CTI on Saturday, July 20 for MMRF Race for Research - Seattle. Joining Mr. Bianco as Honorary Chair is Mr. Jeff Nelson, relief pitcher for the Seattle Mariners. We are currently seeking Seattle area patients, family members and their friends to participate in this fun and exciting event for the whole family. Send an email to themmrf@themmrf.org for more information on how you can help.

MMRF Race For Research - Chicago

Building on the success of our first MMRF Race for Research 5K Walk/Run, the city of Chicago will host its second annual Race for Research 5K Walk/Run - Chicago on Saturday, Sept. 21, 2002. Look for more information in our next issue of Myeloma Focus, MMRF Smartbrief and the MMRF web site.

Help Raise Funds for the Most Promising Myeloma Research in the World

1. Register to participate as a walker/runner at a race near you
2. Encourage your family members, friends and business associates to register as walkers/runners
3. Collect pledges from family members, friends, and business associates to help raise funds
4. Solicit corporate and local businesses for sponsorships and in-kind donations
5. Help promote the race among local and regional media
6. If you cannot walk or run, offer to volunteer for a variety of tasks in planning and coordinating these events.

Contact themmrf@themmrf.org for more information



Clinical Trials in Myeloma

MMRF Launches Clinical Trials Monitor (CTM)

Kicking off 2002, the MMRF launched a cutting-edge new program -- the MMRF Clinical Trials Monitor (CTM). CTM is a web based searchable database of clinical trials on the MMRF web site. This program was developed to provide doctors, nurses and patients with the most current information about open myeloma clinical trials so that patients can make educated decisions about their care. CTM is updated on a monthly basis and focuses on single institution and pharmaceutical trials, with links to NCI and Cooperative Group trials.*

One of the best ways to have access to novel drugs and therapies for myeloma patients is through participation in a clinical trial. As trials accrue more quickly, the drug approval process is hastened, leading to better treatment options for all myeloma patients.

How CTM Works:

CTM is easy to use, just follow these steps:

- 1) Log onto the MMRF web site, www.multiplemyeloma.org
- 2) Double click on the "Trials/Grants" button on the top of the home page
- 3) Double click on "search for clinical trials"
- 4) At the CTM search page, tailor your search by trial type, patient type, or trial location
- 5) Click "submit search" and receive trial information

***To learn more about NCI sponsored and Cooperative Group trials visit:**

NCI's web site
http://www.nci.nih.gov/clinical_trials

Coalition for National Cancer Cooperative Groups web site at
<http://www.cancertrialshelp.org/>

"CTM provides one easily accessible resource where information about myeloma clinical trials is collected, organized and communicated."

- Brian Feltzin, son of a myeloma patient and Partner at Waveland Capital Management.

"CTM educates patients and updates community oncologists/hematologists about new treatments available to myeloma patients. Through CTM, we finally have a comprehensive place to direct patients."

- Dr. Mohamad Hussein, Director of the Myeloma Research Program at Cleveland Clinic



Medical Corner

Clinical Trials: Taking Charge

We are in the midst of a new era in myeloma treatment with a wealth of new compounds being tested in clinical trials. You can be an advocate of your own care by considering participating in a trial. But first, you'll need to know what clinical trials are and how you can identify your options.

What are Clinical Trials?

Clinical trials are the final step in the research process, translating basic science findings into better ways to treat disease. Clinical trials are carried out in a series of steps, or phases, which are summarized in the table below.

What are the Benefits?

The benefits of clinical trials are many. Greater patient participation in clinical trials means that critical research questions will be answered faster, leading to better treatments for all patients. In addition, clinical trials often provide access to promising new treatments before they are widely available. Participants also receive state-of-the-art care and close monitoring.

Unfortunately, few people with cancer take part in clinical trials. The National Cancer Institute estimates that only 5% of patients with cancer are enrolled in clinical trials at any given time. Part of the problem is that patients simply do not know about trials that are available to them. Clinical Trials Monitor (CTM) is one way that you can keep abreast of your options

Don't Let Misconceptions Be a Barrier –

Even when people know about clinical trials, misconceptions prevent many of them from participating. A recent Harris inter-

Steps You Can Take To Become Better Informed About Your Clinical Trials Options

- ✓ Talk to your oncologist and ask whether any trials are being conducted in your area.
- ✓ Check CTM for additional options (see page 5) and share your findings with your doctor .
- ✓ Contact the study coordinator or principal investigator to find out if you are eligible for a trial. Ask questions to help you decide if you'd like to participate. (See next page for a list of questions.)

active survey showed that 75% of cancer patients who were aware of clinical trial options did not take advantage of them. Four primary misconceptions, listed below, were cited. These fears are largely unfounded and are generally inconsistent with the experiences of people who have participated in clinical trials.

Misconception vs. Reality

Misconception: The medical treatment I would receive would be less effective than standard care.

Reality: Patients receive care that is as good as or better than standard therapy.

Misconception: I might get a placebo.

Reality: Sugar pills (placebos) are rarely used in cancer treatment trials and are never given when an effective treatment is available.

Misconception: I would be treated like a "guinea pig."

Reality: Patients are not subjected to unnecessary tests and procedures. All trial protocols are approved by an Institutional Review Board (IRB) to ensure this.

Misconception: My insurance company would not cover the costs.

Reality: In many cases, there is no cost to the patient. Medicare now covers routine care costs of cancer trials; many insurers cover trial medication costs.

Phases of A Clinical Trial

Phases	I	II	III
#Patients	15 - 30	<100	Generally 100 - 1000s
Purpose	<ul style="list-style-type: none"> * Finds safe dosage * Decides how the agent should be given * Sees how the agent affects the human body * Determines the types of side effects that can occur 	<ul style="list-style-type: none"> * Determines if the treatment has an effect on a particular cancer * Sees how the treatment affects the human body * Determines the frequency and type of side effects that can occur 	<ul style="list-style-type: none"> * Compares the efficacy and safety of a treatment (or new use of a treatment) with the current standard
Length	~ 1 year	~ 1-2 years	~ 2-4 years

Medical Corner

Weighing Decisions About Participating in Clinical Trials

People thinking about taking part in a trial should ask the following questions to help with their decision-making:

- ✓ What is the purpose of the trial?
- ✓ Why do the doctors who designed the trial believe that the treatment being studied may (or may not) be better than current therapies?
- ✓ How long is the trial? What kinds of tests and treatments are involved?
- ✓ What are the possible side effects or risks of the new treatment?
- ✓ What are the possible benefits?
- ✓ How could the trial affect my daily life?
- ✓ Will I have to travel long distances?
- ✓ Will I have to pay for any of the treatments or tests?
- ✓ What are my other treatment choices, including standard treatments?
- ✓ How does the treatment I would receive in this trial compare with other treatment choices in terms of possible outcomes, possible side effects, time involved, costs to me and quality of my life?

Information for this article was excerpted from the National Cancer Institute's Clinical Trials Education Series

visit
<http://oesi.nci.nih.gov/series/cted/>
 or call
1-800-4 CANCER

Trials Posted on CTM	Contact Information
Randomized Phase II Trial of Dendritic Cell-Based Idiotypic Vaccination with Adjuvant Cytokines for Plateau Phase and Post-Transplant Myeloma www.multiplemyeloma.org/ClinicalTrials/CTM-39.html	Mayo Clinic (MN) Deb Schott schott.debra@mayo.edu 507-538-1521
A Phase II Study of Gleevec™ (Imatinib mesylate, STI-571) in Patients With Relapsed and Refractory Myeloma www.multiplemyeloma.org/ClinicalTrials/CTM-41.html	Mayo Clinic (MN) Deb Schott schott.debra@mayo.edu 507-538-1521
Phase II Study of AE-941 in Refractory and Early Relapse Myeloma Patients www.multiplemyeloma.org/ClinicalTrials/CTM-4.html	Dana-Farber Cancer Institute (MA) Kathy Kelly, RN 617-632-6303
Phase II Trial of Temodar (temozolomide) and Prednisone in the Management of Myeloma www.multiplemyeloma.org/ClinicalTrials/CTM-45.html	Cleveland Clinic (OH) Mary Ann Karam 216-445-1232
Phase II study of Arsenic Trioxide and Dexamethasone in Patients with Recurrent or Refractory Stage II or III Myeloma www.multiplemyeloma.org/ClinicalTrials/CTM-17.html	Memorial Sloan-Kettering Cancer Center (NY) Dr. Raymond L. Comenzo 212-639-8086
A Phase II Exploratory Study of Combination PS-341 and Thalidomide in Refractory Multiple Myeloma www.multiplemyeloma.org/ClinicalTrials/CTM-53.html	University of Arkansas for Medical Sciences (AR) Jeana Cromer, MPH, CCRP cromerjeanal@uams.edu
Randomized Phase III Study of Dexamethasone With or Without Genasense™ (Bcl-2 Antisense Oligonucleotide) in Patients with Relapsed or Refractory Myeloma www.multiplemyeloma.org/ClinicalTrials/CTM-56.html	H. Lee Moffitt Cancer Center (FL) Dr. Melissa Alsina AlsinaM@moffitt.usf.edu 813-903-6886

ASK THE EXPERT

We are pleased to feature the MMRF's Scientific Advisor, Bart Barlogie, MD, PhD as this issue's Ask the Expert. Dr. Barlogie is Director of the newly established Myeloma Institute for Research and Therapy at the University of Arkansas for Medical Sciences in Little Rock, Arkansas,



Dr. Bart Barlogie

Dr. Barlogie, I had been considering a stem cell transplant for treatment of my myeloma, but I'm not sure, now that there are several new promising drugs in clinical trials. How do I determine the best route to take?

Several of the new drugs being investigated in myeloma are very exciting. However, because these agents are so new, their role in myeloma therapy has not yet been fully determined. Although we have some insights into the frequency and completeness of response in relapsed patients, we are still evaluating the duration of response and have yet to look at response rates in newly diagnosed patients. Information from ongoing and planned trials will help determine the best use of these drugs.

What we do know is that some of these agents have demonstrated significant activity in patients with relapsed and refractory myeloma. Preliminary results from a Phase II trial of the proteasome inhibitor PS-341 (also known as MLN-341 and LDP-341, Millennium) and Phase I/II trials of the immunomodulatory drug (IMiD) Revimid™ (Celgene) appear promising, but more studies are required. A multicenter Phase III trial is being planned to evaluate PS-341 as therapy for patients with relapsed disease and the response to PS-341 will be compared to standard therapy.

Not all patients respond to these agents alone, so a next step is to test them as part of combination therapy. For example, PS-341 is being tested in combination with thalidomide in refractory myeloma in a Phase II study at our center (see box to the right). A Phase III trial of Revimid in refractory myeloma whereby two different dosing schedules will be evaluated and dexamethasone added after two cycles is awaiting administrative approval. Because substantial anti-tumor activity has been reported in clinical trials of hard-to-treat refractory patients, these drugs will also be tested in patients in earlier stages of disease. A multicenter Phase II trial of PS-341 is being planned

for patients with newly diagnosed disease.

We do not have enough experience to know what types of patient will benefit the most, so these agents are currently being evaluated in specific patient populations. Your doctor can discuss whether you might be eligible to participate in a trial or whether a transplant may be your best option. However, keep in mind that patients must meet certain criteria in order to participate in a clinical trial and decisions regarding your treatment would be based on your disease and your individual situation. So you need to keep abreast of these exciting new agents and the various trials and discuss your options with your doctor.

A Phase II Exploratory Study of Combination PS-341 and Thalidomide in Refractory MM

Purpose:

To determine effectiveness of PS-341 and dose escalation of thalidomide, and to evaluate the side effects of the combined regimen.

***Eligibility:**

- ✓ Documented multiple myeloma
- ✓ 18 years or older
- ✓ Relapsed or resistant to more than one line of prior therapy
- ✓ Previously treated with or without autologous stem cell transplantation

Treatment:

A cycle of PS-341 treatment consists of 2x a week administration for 2 weeks followed by a 10-day rest period. A maximum of eight treatment cycles can be administered. Patient receives oral thalidomide every night for duration of study, beginning with Cycle 3. Patients with no response or progressive disease may receive dexamethasone 4x a week beginning with Cycle 4.

Contact:

Arkansas
University of Arkansas for Medical Sciences
Jeana Cromer, MPH, CCRP
e-mail: cromerjeanal@uams.edu.

*Please note that the eligibility criteria listed for each trial on CTM is abbreviated. Please contact the Principle Investigator or study coordinator for additional criteria.

MMRF INSTITUTIONAL INSIGHTS

November 14, 2001 the MMRF's Institutional Insights on Myeloma was held at the Robert H. Lurie Comprehensive Cancer Center of Northwestern University in Chicago, IL. Steven Rosen, MD, directed the evening of dual symposiums -- one for patients and their families and one for health-care professionals. Both the patient and professional programs were well attended. Participants learned more about the most recent progress in myeloma research.



Dr. Steven Rosen



(L-R) Dr. Ken Anderson; Dr. Jayesh Mehta and Dr. Steven Rosen



(L-R) Dr. Ken Anderson, Tammy Smith, Dr. Jane Winter, Dr. Leo Gordon, Dr. Larry Kwak, Scott Santarella, Dr. Seema Singhal, Dr. Steven Rosen, Loren Feingold and Dr. Jayesh Mehta

The MMRF would like to thank the sponsors of this issue of Myeloma Focus:
Betty L. Bump
The Ippoliti Family in Memory of Fernando Ippoliti

DATES TO REMEMBER

April 3, 2002 Boston, MA

2002 Spring Awards Dinner. For more information contact Jenny McMahon: mcmahonj@themmrf.org, 203-972-1250

April 3, 2002 Cleveland, OH

*Institutional Insights on Myeloma
Cleveland Clinic Cancer Center

April 6-10, 2002 San Fran., CA

American Association of Cancer Research (AACR)

April 14, 2002 San Fran., CA

MMRF Race for Research 5k Walk/Run

April 18-21, 2002 Wash., DC

Oncology Nursing Society (ONS)

May 18-21, 2002 Orlando, FL

American Society of Clinical Oncology (ASCO)

May 29, 2002 Houston, TX

*Institutional Insights on Myeloma
MD Anderson Cancer Center

May 2002

Teleconference with Ken Anderson, MD
Dana-Farber Cancer Institute

June 13, 2002 New York, NY

New York City Awards Dinner
Contact Scott Santarella:
santarellas@themmrf.org or (203) 972-1250

June 21 & 22, 2002 Stanford, CA

*Institutional Insights on Myeloma
Stanford University Medical Center

Continual Programs:

MMRF Webcast
<http://multiplemyeloma.org>
Past Myeloma Teleconferences
www.multiplemyeloma.org/events/teleconference.html

***Institutional Insights on Myeloma**

For more information on Institutional Insights Programs: www.multiplemyeloma.org/events/seminars.html or call (203) 972-1250.

\$400,000 Committed to 2001 Winners of Fellows' Awards

MMRF Pleased to Announce the 2001 MMRF Fellows' Awards Winners

The 2001 MMRF Fellows' Awards top off a record-breaking year for the Foundation. In 2001 we funded \$4 million in myeloma research. Once again we received an unprecedented number of applications, up 40% from 2000, including researchers from many institutions that had not previously applied. Throughout this highly competitive grant cycle, the MMRF maintained its stringent review process, including a strict conflict of interest policy and the use of outside reviewers. Congratulations to the ten junior researchers who received \$40,000 to conduct their cutting edge research in areas such as novel therapeutic targets, bone microenvironment, cell signaling and immunotherapy.



David Dingli, MD
Mayo Clinic

A Gene Therapy Approach for Multiple Myeloma

Myeloma cells are sensitive to radiation therapy but eradication of the disease using total body irradiation is not possible due to toxicity. The aim of this project is to induce myeloma cells to express a thyroid protein that takes up radioiodine. Taking up radioiodine should selectively lead to the eradication of these myeloma cells while avoiding toxicity to other organs.



Cristina Gasparetto, MD
Duke University Medical Center

Dendritic Cell Based Vaccination for Multiple Myeloma

Dendritic cells are immune cells that are capable of generating powerful anti-tumor immune responses. The objective of this research is to optimize a vaccine for treating multiple myeloma that is composed of a mixture of dendritic cells and RNA extracted from myeloma cells, which can be studied in clinical trials.



Toshiaki Hayashi, MD, PhD
Dana Farber Cancer Institute

Immunotherapeutic Approach to Multiple Myeloma

These proposed studies will attempt to enhance anti-multiple myeloma immuni-

ty by 1) inducing myeloma-specific cytotoxic T-lymphocytes (potent immune cells) using vaccine strategies, and 2) increasing activity of patients' natural killer cells against myeloma with thalidomide, thalidomide analogues and arsenic trioxide. These novel immune-based strategies may help overcome drug resistance and improve patient outcomes



Martha Lacy, MD
Mayo Clinic

Randomized Phase II Trial of Dendritic Cell-Based Idiotype and Post-Transplant Multiple Myeloma

This project examines whether cytokines (chemicals that boost an immune response) can improve the response to dendritic cell vaccines for myeloma. The aim of the study is to better understand how to improve anti-myeloma vaccines in the future.



Richard LeBlanc, MD
Dana Farber Cancer Institute

A Model For The In Vivo Growth Of Multiple Myeloma In The Bone Marrow Microenvironment

By using a highly porous three dimensional matrix to provide a substrate for the growth of bone marrow stromal cells, a new mouse model for multiple myeloma will be developed. This will permit the interaction between myeloma cells and their stromal cells in the bone marrow microenvironment, and will allow for the study of cellular and molecular events regulating in vivo myeloma cell growth and survival.

\$400,000 Committed to 2001 Winners of Fellows' Awards



**Constantine Mitsiades, MD,
M.Med.Sc**
Dana Farber Cancer Institute

**The Molecular Chaperone Hsp90 As
A Novel Therapeutic Target For
Multiple Myeloma**

Preliminary studies showed that novel drugs, which block the activity of hsp90 (a molecule that regulates the structure and function of important intracellular proteins) can kill myeloma cells, overcome their drug resistance, and neutralize mechanisms that promote their growth and survival in the bone microenvironment. Hsp90's role in the growth and survival of myeloma cells will be further investigated to provide the framework for novel therapies targeting the function of hsp90.



Kenneth Shain, PhD
H. Lee Moffitt Cancer Center

**β 1 Integrin-Initiated Signaling Events
Regulate The Subcellular
Localization of c-FLIP L Following
Adhesion To Fibronectin, Protecting
Adhered MM Cells From CD95-
Mediated Apoptosis**

It has been previously demonstrated that adhesion of multiple myeloma (MM) cell lines can inhibit the death receptor CD95/Fas/Apo-1. This protection involves the intracellular redistribution of cellular FLIP, a survival protein. This grant aims to identify the specific mechanism(s) by which adhesion mediates the redistribution of FLIP (and increased survival) to aid in the development of drugs that assist the human immune system to eliminate MM cells.



Masood Shamas, PhD
Harvard Medical School

**Targeting Telomere Expansion
Mechanisms for Multiple Myeloma**

Telomeres, specialized structures at the ends of chromosomes, are required for a

cell to stay alive and to continue dividing. In normal cells, telomeres shorten with age and eventually cells die. In myeloma, cells telomere length is maintained by telomerase (a protein) and/or DNA recombination, or rearrangements, a hallmark of myeloma. This research will examine combination therapy directed at recombination and telomerase to control myeloma growth.



**Dr Cameron Turtle, MBBS,
FRACP, FRCPA**
**Mater Medical Research
Institute, Australia**

**Optimization of Dendritic Cell
Preparation and mRNA Loading for
Multiple Myeloma Immunotherapy**

Dendritic cells (DC), rare blood cells that comprise less than 1% of the circulating white cells, are potent initiators of immune responses against foreign substances in the body. This research is developing new technology to manipulate DC to induce an anti-MM immune response, which could ultimately lead to generating an anti-MM vaccine to prevent or treat disease after chemotherapy or radiotherapy.



Karin Vanderkerken, PhD
**Free University Brussels,
Belgium**

**The Role of RANK/RANK Ligand
Interaction in the Development of
Multiple Myeloma Disease: Study in
the 5TMM Model**

RANKL is known to interact with RANK on osteoclasts, cells that degrade bone. This research is investigating how RANK/RANKL interaction is involved in the development of multiple myeloma in an in-vivo murine model, and will analyze the regulation of this molecule and its receptor, and whether blocking this interaction has a beneficial effect on tumor development and associated bone lesions.



MMRF ADVOCACY DAY

MMRF Announces Advocacy Day 2002 and Calls For Myeloma Advocates

The MMRF is calling for advocates! Please join us in Washington DC for the Second Annual Blood Cancer Advocacy Day event on April 30 and May 1. The Multiple Myeloma Research Foundation (MMRF), Lymphoma Research Foundation (LRF) and Leukemia and Lymphoma Society (LLS) are once again spearheading this event with the help of all blood cancer advocacy organizations to: 1) advance blood cancer research 2) ensure access to quality cancer care for all blood cancer patients.

This collaborative 2002 Advocacy event will build on the successes of Advocacy Day 2001. Over 300 passionate and determined advocates will once again storm the "Hill" to:

- a Advance the research priorities of the Leukemia Lymphoma and Myeloma Progress Review Group (LLM-PRG) convened by the NCI.
- a Advocate for oral anti-cancer drug coverage as part of the Access to Cancer Therapies Act (H.R. 2629/S. 913).
- a Enact the Hutchison Bill (H.R. 2629/S. 1094).

If you are interested in going to Washington DC to be an official myeloma advocate on April 30 and May 1, 2002 please fill out an advocate application at:

www.multiplemyeloma.org/downloads/AdvocateApp.doc

Send your completed application to:

Bruce Holmberg at
Bholmberg@aol.com
or
3 Old Creek CT
Rockville, MD 20854
phone: 301-509-4106



Our sincere thanks to Bruce Holmberg, an MMRF Board Advisor and myeloma patient, for all of his volunteer efforts on Advocacy Day 2002

Successes of Advocacy Day 2001

- ✓ Dr. Ken Anderson, Geraldine Ferraro and Kathy Giusti testified in the first-ever Congressional hearing on blood cancers held by the Senate HHS subcommittee.
- ✓ Senator Kay Bailey Hutchison championed her bill (S.1094), The Hematological Cancer Research Investment and Education Act of 2001, which authorizes \$275 million for blood cancer research and education.
- ✓ 335 blood cancer advocates made 210 lobbying visits to Senators and Representatives from 39 states.



Advocacy Day 2001
(L) Senator Hutchison
and (below) Geraldine
Ferraro



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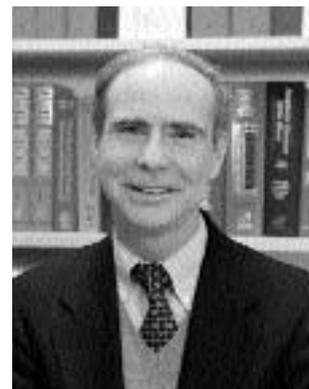
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Visit our web site at
<http://www.multiplemyeloma.org>

The information herein is not intended to replace the services of trained health professionals (or to be a substitute for medical advice.) You are advised to consult with your healthcare professional with regard to matters relating to your health, and in particular, regarding matters which may require diagnosis or medical attention.

MEET OUR BOARD

Ken Anderson – Board Member and Chairman, MMRF Scientific Advisory Board

Rarely is mention made of multiple myeloma and its recent treatment advances without mention of Dr. Kenneth Anderson, an independent investigator in the Hematologic Malignancies Disease Center at the Dana-Farber Cancer Institute and Professor of Medicine at Harvard Medical School. Dr. Anderson's name has become synonymous with hope for thousands of people living with multiple myeloma. His investigation of therapies that attack not only the myeloma cells, but also the bone marrow microenvironment in which cells exist has the potential to dramatically alter the course of the disease and affect thousands of lives for the better.



It is this spirit of collaboration that brought Dr. Anderson to the MMRF Board and has made his presence here so mutually beneficial. As the Board's scientific expert, he presents the biological facts of the disease and keeps members abreast of the latest clinical developments. He sums up his role by saying that "serving on the MMRF Board has enabled me to communicate the realities of science to those who have strategic business and funding development expertise. I give them the facts and they give me reason to believe we can change them."

Dr. Anderson has seen first-hand the impact that increased research funds has had on patients' lives. "New treatments are being developed and tested that would not have occurred without the focused strategy of the MMRF's fundraising efforts. There is no doubt that patients are living longer today because of it."

In his role as Chair of several of the MMRF research roundtables he shares information with colleagues in other cutting edge areas of medicine, which has fostered rapid development of therapies informed by research of other diseases. In addition, he helped to establish MMRF's Clinical Trials Monitor, which he sees as a critical tool to help bring patients into clinical trials. "Without patient education, cooperation and participation, my research would not be possible. Their awareness of trials and willingness to participate has the potential to benefit not only themselves but also all others affected by this disease. They are a critical part of the research team."

Dr. Anderson considers himself fortunate to be a part of such a dedicated and comprehensive team committed to finding a cure. And it goes without saying that the MMRF is fortunate to have him on ours.



MMRF HONORARY BOARD MEMBERS



Bonnie Hunt
Actress



Dan Jansen
Olympic Speed Skater



J Carter Brown
Chairman of Ovation
Director Emeritus of the Nat'l Gallery of Art

Three New Members

The MMRF is pleased to announce the addition of three new members to our honorary board. The MMRF Honorary Board consists of a diverse group of individuals that have gained distinction in their respective fields. These people have committed themselves to offering guidance and strength to the MMRF in our ongoing struggle to find a cure.

The MMRF Honorary Board members include: Bob Costas, Emmy Award winning sportscaster; Ann Curry of NBC Today; Eric Davis, all-star major league baseball player; Geraldine Ferraro, former vice presidential candidate; Senator Kay Bailey Hutchison of Texas; Hamilton Jordan, former White House Chief of Staff; General Norman Schwarzkopf, Gulf War commander; Deborah Norville of Inside Edition; Diana Krall, Grammy Award winning jazz artist; Mel Stottlemyre, New York Yankees pitching coach; and Paula Zahn, CNN.

MYELOTHON

The 3rd Annual Boston Myelothon Raises \$16,000

The New England Area Multiple Myeloma Support Group (NEAMMSG) held its third annual Myelothon to continue their efforts in raising awareness of the disease and raising funds to go toward the most promising myeloma research. The MMRF would like to



NEAMMSG's Third Annual Boston Myelothon

thank all of those who participated in this event, and we extend a special thanks to Naren Ahya for his leadership and the SilverPlatter company and their employees for their generous fundraising.

YOU NEED TO KNOW

Zometa® Receives FDA Approval for Treatment of Bone Complications in Multiple Myeloma

February 22, 2002 the US Food and Drug Administration (FDA) approved Zometa® (Novartis Oncology) for the treatment of bone complications associated with a broad range of tumor types. These include multiple myeloma, prostate and lung cancer, other solid tumor types, and breast cancer. Zometa also offers a reduced 15-minute infusion time as compared with a 2-hour treatment period for other bisphosphonates, which can make the treatment more convenient for patients, nurses and clinicians.

Clinically, the Zometa approval is based on data from three international clinical trials that involved over 3,000 patients with a broad range of cancers, including myeloma. "With this approval, Zometa offers to physicians and patients a new,

broadly effective and convenient treatment for the debilitating bone complications of cancer," said David Epstein, President, Novartis Oncology.

Zometa has been generally well tolerated with a similar safety profile to other bisphosphonates. The side effects most commonly reported include flu-like symptoms, fatigue, gastrointestinal effects, anemia, weakness, coughing, dyspnea and edema. There have also been reports of electrolyte and mineral imbalances, and kidney dysfunction associated with bisphosphonates, including Zometa. To reduce the risk of kidney damage, serum creatinine levels should be carefully monitored, dose should not exceed 4 mg, and infusion duration should be no less than 15 minutes.

Combined Federal Campaign Approval for MMRF

The MMRF has been approved by the Combined Federal Campaign (CFC) and is eligible for inclusion on the 2002 CFC National List.

The CFC is the annual fund-raising drive conducted by Federal employees in their workplace every fall. Each year Federal employees and military personnel raise millions of dollars through the CFC that benefits thousands of non-profit charities. The number donors use to contribute to the MMRF is 1048. We are officially listed as the Kathy Giusti Multiple Myeloma Research Foundation.



Register for the MMRF SmartBrief - our weekly electronic newsletter - send your email address to kucharczyki@themmrf.org

Upcoming MMRF Institutional Insights Novel Therapeutic Approaches in the Treatment of Multiple Myeloma

Arkansas:

Patients Program: Thursday, March 14
Professional CME Symposium: Friday A.M., March 15
Presenters

Chair: Guido Tricot, MD, PhD, Myeloma Institute
Bart Barlogie, MD, PhD, Myeloma Institute
Nikhil Munshi, MD, Dana-Farber Cancer Institute
Brian VanNess, PhD, University of Minnesota

Location

Myeloma Institute for Research and Therapy
University of Arkansas for Medical Sciences

Cleveland:

Afternoon and Evening, April 3, 2001
Presenters

Chair: Mohamad Hussein, MD, Cleveland Clinic
Jose Cruz, MD
Phil Greipp, MD, Mayo Clinic
Isador Lieberman, MD, Cleveland Clinic
Nikhil Munshi, MD, Dana-Farber Cancer Institute

Location

Four Points Hotel Sheraton Cleveland South

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RESEARCH
FOUNDATION**

MMRF
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New Canaan, CT 06840

Accelerating the Search for a Cure



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Senator Kay Bailey Hutchison with her brother Allan, a multiple myeloma patient.

Advocacy Day 2002

The Collaborative 2002 Advocacy event promises to be a great success and will include:

- ✓ Leadership from Senator Kay Bailey Hutchison and Geraldine Ferraro
- ✓ Disease specific educational sessions
- ✓ Overview of the priorities of the 107th Congress
- ✓ Interactive advocacy training
- ✓ Congressional reception and award ceremony
- ✓ lobbying visits with key members of Congress.

Please refer to page 12 for more details.

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