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MYELOMA FOCUS

Newsletter of the

MMRF



MMRF ANNOUNCES ALLIANCE WITH FAMILY OF LEGENDARY COLUMNIST ANN LANDERS

The MMRF is grateful to **Margo Howard**, daughter of legendary newspaper columnist **Ann Landers**, for teaming-up with The MMRF in a new national collaboration to help raise awareness and funding for the disease that recently took the life of her mother.

Story Page 4

A YANKEE GRAND SLAM \$450,000 RAISED AT NEW YORK CITY EVENT

Pitching Legend and future Hall of Famer, Roger Clemens, stepped up to the MMRF mound on June 13th to deliver the first-ever **MMRF Lifetime Achievement Award** to his coach, friend and multiple myeloma fighter, Mel Stottlemyre. New York Yankees Pitching Coach, Mel and his wife Jean hosted a sold-out crowd of more than 300 at the St. Regis Hotel, in New York City, for myeloma research, raising more than \$450,000.

During Mr. Clemens' emotional presentation, he referred to Coach Stottlemyre as a "tough, kind, courageous man and someone I am honored to call friend." He remembered the team's support of Mel during the 2000 playoffs when Stottlemyre received a stem cell transplant. Clemens hailed Mel as a leader, a strong mentor and team father figure, a role Mel now assumes in the fight to cure myeloma.

Other honorees of the evening included Geraldine Ferraro, who was presented with the **MMRF Public Awareness Award** by her daughter and MMRF Board



Roger and Debbi Clemens

(L-R) John Zaccarro, Geraldine Ferraro, Mel and Jean Stottlemyre



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Welcome Letter

Dear Friends,

The Multiple Myeloma Research Foundation (MMRF) exists today as an extension of a single desire my sister and I had four years ago. It was a desire to learn everything we could about the disease and to be directly involved in supporting the discovery of a cure.

I believe this desire is something shared by every person affected by multiple myeloma. I am continuously reminded of how patients and families very much want to be involved, and I am heartened by how much this continues to make a big difference.

Now, with the launch of the MMRF 5K Walk/Run fundraisers across the country, and with the hugely successful races held most recently in San Francisco and Seattle, we are pleased to report that patients and families can now turn their love and determination into direct financial support for myeloma research, and I encourage you to get involved where ever you can.

I am also heartened by the recent alliance between the MMRF and Margo Howard, daughter of the legendary Ann Landers. Ms. Howard brings a passionate commitment to improve the lives of those stricken with the disease and she is committed to raising awareness and funding for research to find a cure. The foundation is fortunate to have her on our team.

It has been our honor and privilege to work with public figures and prominent professionals who have brought much needed attention and funding to the cause of curing multiple myeloma. It has also been our honor and privilege to work with patients and families whose voices and contributions continue to bring us closer in spirit and in dollars, to our goal for a cure.

Thank you to ALL of our contributors for their invaluable support.



Families Funding Research

Pat and Helen Stusser have had a 45 year partnership, which produced three daughters, five grandchildren and a host of accomplishments in their community. Pat and his brother were longtime owners of Stusser Electric Company, a Seattle-based distributor of electrical supplies. Now, Pat and wife Helen are bringing a different form of electricity and enthusiasm to the cause of finding a cure for multiple myeloma.

As long-time supporters of the MMRF, the Stussers were eager to participate when they learned that the MMRF was planning a 5K Walk/Run in their hometown. "This was a great opportunity for Helen and me to be actively involved" Pat commented. He went on to explain how he and Helen sent out a letter to family, friends and business associates that created a "wave of verbal and financial support. It was an incredible response!" Pat then went on to announce that at the race TEAM STUSSER consisted of 110 participants and raised \$30,000.

Pat retired almost eight years ago and was spending his retirement actively volunteering, traveling, walking and golfing. He was diagnosed with multiple myeloma six and a half years ago. Pat learned of the MMRF through his research of multiple myeloma on the Internet. He subscribed to *Myeloma Focus* and soon became a supporter as he was impressed with the advisory board and noted that "everything they've done is in the right direction for finding a cure." He remains committed to supporting the MMRF and hopes that TEAM STUSSER's success inspires others to go out and do the same. It is the advocacy for obtaining support and the funding of research that is the basis for his belief and hope that a cure will be found.



Helen and Pat proudly display the "Top Individual Fundraiser" Award won at the Seattle 5K Walk/Run



MMRF GALA REPORT

NYC Event

continued from page 1

Member, Donna Zaccaro. Geraldine Ferraro spearheaded the MMRF's Blood Cancer Advocacy Day and the signing of the Blood Cancer Bill. John Jackson, CEO of Celgene, Inc. accepted the **MMRF Corporate Leadership Award**, on behalf of his company, which is responsible for bringing to the fight against multiple myeloma, thalomid and their newest drug, Revimid.



Board Members (L-R) Donna Zaccaro, Lynn Vos and Karen Andrews



Ed Randall, Kathy Giusti and Keith Olbermann

The evening's Master of Ceremonies was sports personality, Keith Olbermann. Honorary Chairs included Richard Grasso, CEO, New York Stock Exchange and Ed Randall, ESPN Radio Host. The Dinner Chairs included Chris Blackwell, Judy and Paul DeWinter, Amy Cavers, Sol J. Barer, PhD, Angela Macropolous, Ken Makovsky and Donna Zaccaro. Special thanks also goes to Palio

Communications for graciously donating all the design and printing of the invitations and signage for the evening.

Friends For Life Fall Gala

The MMRF will return to the Greenwich Hyatt in Greenwich, CT on November 2, 2002 for its sixth Annual Friends for Life Fall Gala. Two-time Emmy award winner, Deborah Norville, of Inside Edition will once again serve as master of ceremony.



Deborah Norville

This year's gala will be chaired by Linda McMahon, CEO of Worldwide Wrestling Entertainment (WWE), Inc. This Stamford, CT-based company operates with a business philosophy that incorporates a strong focus on giving back to the community. Linda's aggressive approach to the entertainment business is equally matched by her desire to help others and she has guided WWE to incredible success, not only entertaining large audiences but also helping a long list of philanthropic organizations. The MMRF is proud to join that list.



Linda McMahon

For more information on the event, please contact Craig Robertson at 203-972-1250 or robertsonc@themmr.org. For more information regarding auction items, please contact Jenny McMahon at 203-972-1250 or mcmahonj@themmr.org.

ALLIANCE WITH ANN LANDERS' FAMILY

continued from page 1

Margo Howard, daughter of legendary newspaper columnist Ann Landers, has teamed-up with The MMRF to help raise awareness and funding for the disease that recently took the life of her mother. This new national collaboration is intended to positively impact individuals and families affected by multiple myeloma and raise awareness to the general public.

"During my mother's lifetime, she was a great supporter of medical research," said Howard. "It seems fitting that, after her death, her name will continue to be connected with medical progress. It would be beyond wonderful if the mystery of multiple myeloma could be solved as the name Ann Landers joins the legion of people who devoutly wish for a cure."

Kathy Giusti, President of the MMRF added, "We are most grateful for the opportunity to work with Ann Landers' family towards a common mission." The alliance will focus on two major initiatives: The first is a national fundraising program, named the "Ann Landers Research Fund." The MMRF will launch a special section on its web site devoted to the life of Landers, where visitors can also pledge their support for research to be conducted in her name. In addition to the online component, the MMRF also announced that its annual Chicago 5K Walk/Run will be renamed "The MMRF Ann Landers Race for Research," beginning September 21st with this year's event. Tell friends, family and associates about the new Ann Landers Research Fund and visit the MMRF's web site www.multiplemyeloma.org to donate today.



Richard Dalton, Marketing Director, Mind/Body Institute, Boston, friend of the MMRF (pictured left) introduced Margo Howard (center) to Kathy Giusti. The MMRF thanks Richard Dalton for his gracious support, for being instrumental in bringing this alliance together and wishes his mother well in her battle with multiple myeloma.

MMRF Race for Research

Seattle 5K Walk/Run Raises \$180,000 for Research



Cell Therapeutics, Inc (CTI) Team

The first annual MMRF Race for Research - Seattle, held on July 20th at Sand Point-Magnuson Park, was a huge success. Over 650 runners and walkers participated in the 5K event and helped raise over \$180,000! A beautiful, sunny Seattle day staged this inspiring event that raised for myeloma research a bevy of awareness and funding. A very special thank you goes out to the event chairmen - Dr. James Bianco, CEO, Cell Therapeutics, Inc., John Schwartz, Partner, Schwartz Brothers Restaurants and Jeff Nelson, pitcher, Seattle Mariners.

continued page 13



Team Stusser - 110 participants race for a cure.

FUNDRAISING

1-800-FLOWERS.COM® Delivers Donations



The Multiple Myeloma Research Foundation (MMRF) is excited to announce its newest fundraising partnership with 1-800-FLOWERS.COM®. 1-800-FLOWERS.COM® will give 10%* of the purchase price to the MMRF every time you make a purchase and use the code **MMRF** when ordering.

Say I love you, thank you, happy birthday, happy anniversary, and keep in touch with someone special while at the same time, supporting the MMRF .

1-800-FLOWERS.COM® has an exciting array of thoughtful gift products including the greatest gourmet baskets, sweetest desserts, finest novelties and giftware and of course, the freshest flowers.

Order today by phone at 1-800-FLOWERS® (1-800-356-9377) or online at www.1800flowers.com, and remember to use the code **MMRF**.

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Remember These Important Dates

October 2002

Halloween October 31

November 2002

Thanksgiving Day November 28

Chanukah (Begins at Sundown*) November 29

December 2002

Christmas Day December 25

January 2003

New Year's Day January 1

The MMRF Game Dinner Raises \$58,000

The MMRF's fifth Annual Game Dinner hosted by Charlie Hinnant, President and CEO of Charkit Chemicals of Darien, CT took place May 30, 2002. The event was held at the five-star Roger Sherman Inn in New Canaan, CT and raised a total of \$58,000 toward funding research grants sponsored by the Multiple Myeloma Research Foundation.

John Andrews, President and CEO of American Natural Soda Ash Company (ANSAC) and David Lindsay, Vice President, Marketing of Rand Insurance (both Connecticut-based companies) played key roles in helping to organize and raise funds for the event.



Charlie Hinnant's fifth Annual Game Dinner Participants

"It is an honor for me to be associated with such an outstanding organization," stated Charlie Hinnant. He praised the MMRF's commitment to maintaining low administrative costs and ensuring that 93% of all funds raised are applied directly to myeloma research and related programming. He reaffirmed his resolute support of the MMRF mission stating, "We look forward to continuing to support the Multiple Myeloma Research Foundation until we find a cure for this terrible disease."

The MMRF Annual Game Dinner has raised more than \$115,000 over the past five years.

RESEARCH GRANT AWARDS

The MMRF Grants \$280,000 in Fellows Awards

The Multiple Myeloma Research Foundation is the #1 private funder of myeloma research. To date, the MMRF has raised over \$11 million towards research grants and related programming. The Foundation has funded 36 myeloma institutions, one-third of which are internationally based. In keeping with our mission to encourage further investigation into multiple myeloma, we are proud to announce MMRF's 2002 Student Fellows Awards.



Ramesh B. Batchu, PhD
University of Arkansas
Title: Cytolytic T Lymphocyte (CTL) Mediated Immunotherapy of Multiple Myeloma Using Gene-Modified Dendritic Cells

We have identified several cancer specific genes in myeloma patients and generated recombinant vectors that can be effectively used to introduce cancer genes into immune cells. Blood samples will be obtained from the patient and we will purify a subset of cells that will be grown in the laboratory into dendritic cells (DC). These cells play a central role in stimulating the immune response. We will introduce recombinant vectors with the cancer-specific genes into DCs. The gene-modified DCs will be infused into the patients to stimulate the production of white blood cells capable of killing tumor cells.



Manual A. Macapinlac, Jr., MD
NYU School of Medicine
Title: Role of STAT3 In Multiple Myeloma

Research in multiple myeloma has been hampered by the lack of animal models. We have generated a mouse engineered to over express an oncogene called NPM-ALK; these mice develop a disease that appears to mimic the multiple myeloma seen in humans. Preliminary data also suggest that in these mice, the activation of another gene called STAT3, might be important in the development of the myeloma. We intend to characterize

this model further and use the model to knock-out and study the function of the STAT3



Dr. Daniel Man-Yuen Size
Royal Prince Alfred Hospital
Australia
Title: High-Potency Immunodominant Peptide Immunotherapy

Effective tumor-specific immunotherapy requires attention to the effective tumor antigenic targets and high-potency dendritic cells.

The antigen-presenting cells stimulate the tumor-specific T-cells that in turn kill the tumor cells. Our group has found that expanded CD8+ T-cell populations in patients with multiple myeloma correlate with good prognosis. We know some of these T-cells are specific for the patient-specific tumor surface protein markers called idiotypes. We plan to build upon our previous studies and findings on tumor-specific T-cells, and by using the high potency dendritic cells primed with high affinity tumor peptides, to start an immunotherapeutic pilot trial on patients with myeloma.



Yulia Nefedova, MD, PhD
H. Lee Moffitt Cancer Center
Title: Role of Bone Marrow Stromal Cells in De Novo Resistance of Myeloma Cells to Chemotherapeutic Drugs

Resistance of malignant plasma cells to chemotherapy is one of the major problems in treatment of multiple myeloma. In addition to mechanisms of acquired drug-resistance, myeloma cells may also escape initial drug exposure. Recent observations suggest that the bone marrow microenvironment may have a critical role in this process. This study will investigate the mechanisms of bone marrow stromal cell mediated resistance of myeloma cells to chemotherapy.

RESEARCH GRANT AWARDS

The MMRF Grants \$280,000 in Fellows Awards

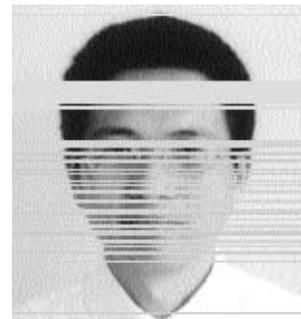


Leonardo A. Sirulnik, MD, PhD
Mount Sinai Medical School
Title: Functional Characterization of the Multiple Myeloma SET Domain (MMSET) Protein

Defective gene expression is one of the underlying mechanisms leading to hematological malignancies. MMSET is a newly discovered gene that is involved in chromosomal abnormalities found in multiple myeloma and we hypothesize that its dysregulation may be responsible for some of the pathological features of this disease. We propose to characterize the MMSET protein and to determine whether it plays a role in the regulation of gene expression. This research may identify MMSET as a new target in the treatment of multiple myeloma.

Yijiang Shi, Ph.D.
West Los Angeles VA Hospital of the Greater Los Angeles Healthcare System
Title: The AKT-mTOR Pathway in Multiple Myeloma

This project intends to explore the signal pathway that appears to be hyperactive in multiple myeloma cells. Steps in this pathway are critical for producing proteins that are required for the cell to continue traversing the cell cycle in a proliferative mode. We have identified two drugs that are in clinical trials: Rapamycin and CCI-779. Future work will investigate mechanisms by which some myeloma cells can resist effective treatment with these drugs and their effectiveness in-vivo in mice.



Suzanne Trudel, MD, MSc
Weill Medical College of Cornell
Title: Therapeutic Intervention in Myeloma: FGFR3 as Drug Target

The identification of cancer-specific changes as the cause of cancer offers the potential for rational therapeutic interventions. The clinical value of cancer drugs targeting specific cancer-associated changes is now firmly established with the success of STI571 (a.k.a. Gleevec), a small molecule inhibitor of Bcr-Abl in CML. Growing evidence supports the role FGFR3 as a key player in the pathogenesis of 20% of myeloma cases, making it an ideal target for pharmacological inhibition. We will identify small molecule inhibitors and assess the ability of these drugs to selectively block the growth of FGFR3-expressing myeloma cells. Furthermore, we will characterize potential mechanisms by which these drugs may cause tumor regression. Finally, if successful, we will determine whether these drugs can eradicate tumors in animals. The hope is that this will lead to the development of more effective and less toxic therapy for myeloma.

The MMRF Announces Fall 2002 Call For Senior Research Grants

Senior researchers are invited to apply for the \$100,000 Senior Research Awards available to investigators with an interest in myeloma and who have been working in blood cancer research for 5 years or more.

The application deadline is Friday, November 1, 2002 at 5pm EST.

You can download the application at www.multiplemyeloma.org/researchgrants.html

Please direct any inquiries to
leec@themmrf.org
or call 203-972-1250

Medical Corner

Hematopoietic Growth Factors: Lifelines for Myeloma Patients

Hematopoietic growth factors -- medications that help the bone marrow produce more blood cells -- provide a great benefit for many patients with myeloma. Here we describe how various growth factors are used therapeutically in myeloma.

Erythropoietin: Help for Managing Fatigue

One of the most common and debilitating effects of cancer is fatigue that occurs as a result of anemia -- a decrease in the body in the number of red blood cells (RBCs). This type of fatigue is due to the fact that the reduced numbers of RBCs -- hence a reduced amount of oxygen-carrying hemoglobin (Hb) -- cannot carry enough oxygen to the body's tissues. Oxygen is needed to provide energy, so a lack of oxygen results in a feeling of tiredness or weakness that cannot be relieved by simply resting.

According to guidelines developed by the National Comprehensive Cancer Network (NCCN), anemia is defined as a hemoglobin concentration below the normal value of 12-16 g/dL for women or 14-18 g/dL for men. Anemia can be due to a loss of RBCs due to excessive bleeding or to decreased production of RBCs by the bone marrow. Anemia resulting from decreased production of RBCs occurs in almost all patients with myeloma.

Anemia is prevalent in patients with myeloma for several reasons. First, malignant myeloma cells crowd out the normal bone marrow cells that produce RBCs. In addition, chemotherapy used to treat myeloma also damages these normal bone marrow cells. Kidney failure can also lead to anemia because the kidneys normally produce a growth factor that stimulates the production of RBCs by the bone marrow. This growth factor is erythropoietin -- EPO for short. When the kidneys are damaged, they produce less EPO.

Fortunately EPO is available as a medication. Myeloma patients who experience fatigue as a result of anemia may receive Procrit® (epoetin alfa) or Aranesp™ (darbepoetin alfa), a closely related product (see table) to

increase the production of RBCs. Both are approved for use in anemia associated with chemotherapy. Patients may also receive Epogen®, another brand of epoetin.

According to NCCN guidelines, epoetin should be considered in patients with cancer or treatment-related anemia when the anemia is mild (Hb = 10-11 g/dL) and should strongly be considered when anemia is moderate to severe (Hb <10 g/dL). Epoetin is typically administered as an injection under the skin 1 to 3 times a week as needed to maintain hemoglobin levels at the desired level, typically 12 g/dL. Supplemental iron is given as needed. Overall, about 60% of cancer patients receiving chemotherapy respond to epoetin treatment.

Therapeutically in Myeloma

Treating anemia allows more oxygen to circulate throughout the body, which can result in more energy, reduced fatigue and the restored ability to be active. Several clinical trials have shown that treating anemia associated with cancer or chemotherapy significantly improves a person's quality of life, including their ability to perform their usual daily activities and to work. Epoetin also reduces the need for transfusions in patients receiving chemotherapy by about half and has been shown to improve treatment outcome in certain cancers. Many of these benefits have been demonstrated in patients with

Growth Factors Used

Generic Name	Brand (Manufacturer)	Effect in the body
Epoetin alfa	Procrit® (Ortho Biotech)	Stimulates the production of RBCs
Darbepoetin alfa	Epogen® (Amgen Inc.) Aranesp™ (Amgen Inc.)	
Filgrastim	Neupogen® (Amgen Inc.)	Stimulates the production of WBCs known as granulocytes
Pegfilgrastim	Neulasta™ (Amgen Inc.)	Stimulates the production of WBCs known as granulocytes; long-acting
Sargramostim	Leukine® (Immunex Corp./Berlex)	Stimulates the production of WBCs known as granulocytes and macrophages

Medical Corner

myeloma (see box previous page) and there is a study underway to more accurately determine Epoetin's effect on quality of life in patients with myeloma and other hematologic cancers who have anemia related to chemotherapy.

Colony-stimulating Factors Boost White Blood Cell Counts

Myeloma patients may also have low numbers of white blood cells (WBCs) as a result of chemotherapy or as a result of myeloma cells crowding the normal blood-producing cells in the bone marrow. In either case, a reduced WBC count can lead to an increased risk of infection.

One type of WBC that is particularly important in fighting off infection is called a neutrophil. Neutrophils account for the majority of white blood cells in the body. When neutrophil levels drop below normal (a condition known as neutropenia), the body is less able to fight off infection.

Growth factors known as colony-stimulating factors (CSFs) stimulate production of infection-fighting neutrophils. Examples of CSFs include Leukine®, Neupogen®, and Neulasta™ (see table). CSFs are administered as an injection under the skin or in a vein.

Patients receiving chemotherapy may receive CSFs to increase the number of neutrophils and to reduce the chance of infection. Keeping WBC counts up and preventing infection can help keep patients on track with their chemotherapy schedule. CSFs are given 24-48 hours following the completion of a cycle of chemotherapy and are continued daily for up to 2 weeks until neutrophil counts have risen to about 10,000 cells/mm³. The next cycle of chemotherapy is given at least 24 hours after completion of CSF therapy.

Patients who are having their stem cells harvested prior to high-dose chemotherapy and autologous peripheral blood stem cell transplantation may also receive CSFs prior to stem cell collection. Administration of these growth factors helps mobi-

lize their stem cells, that is move the stem cells from the bone marrow into the blood stream to increase the number of stem cells collected for the transplant.

CSFs may also be administered after high-dose chemotherapy and autologous or allogeneic stem cell transplantation to help speed up the production of WBCs by the transplanted bone marrow and allow a faster recovery. Several randomized trials have documented that CSFs can reduce the duration of neutropenia by up to a week, as well as reduce infectious complications and length of hospitalization in patients receiving high-dose chemotherapy and stem cell transplantation.

Effect of Epoetin in Myeloma

A recent placebo-controlled study of Procrit (epoetin alfa) in patients with myeloma demonstrated that it provided significant benefits. Hemoglobin levels were increased by an average of 1.8 g/dL after 12 weeks compared with no increase with placebo treatment and the need for transfusion was reduced by 60%. Significant improvement in more quality of life measurements were also seen in the epoetin group and 3 times as many patients treated with epoetin showed improvement in their ability to perform tasks of daily living. (Dammacco et al, Br J Haematol 2001;113:172-179)

The MMRF Thanks
the following corporations for
their support of Myeloma Focus

CTI, Ortho Biotech



MMRF INSTITUTIONAL INSIGHTS

DATES TO REMEMBER



**INSTITUTIONAL
INSIGHTS
ON MYELOMA**

The MMRF's Institutional Insights programs entitled: Novel Therapeutic Approaches in the Treatment of Multiple Myeloma brought us to M.D. Anderson Cancer Center in Houston, TX in May and in June we partnered with the Stanford University School of Medicine, in Stanford, CA. Dr. Sergio Giralt chaired the symposia in Houston and Dr. Keith Stockerl-Goldstein chaired the Stanford event.

Both the MD Anderson and Stanford programs were our first at these institutions both with patient and professional components. The events were great successes with over 350 patients at the June 20th Stanford program. The MMRF would like to thank all of the speakers and attendees for their time and support of our programs. Especially the Bay Area support group leader Marge Cameron with Beth Compton and Eva Dodge for their help at Stanford and Houston area support group leaders Norma Jones and Cherry Evans for their help at MD Anderson.

MMRF Institutional Insights consist of two separate symposia, one for health care professionals and one for patients and their families. With so many new trials being conducted in myeloma, exciting new information is being presented at each program. MMRF Institutional Insights programs cover supportive care and prognostic indicators, bisphosphonates and bone disease, the use of thalidomide and its analogs, emergins therapeutics, vaccines and immune therapy and clinical trials. There is also a time during each program for the audience to have their questions answered by the experts. Check out the calendar for an upcoming program near you.



MD ANDERSON:
(L-R) Dr. Mikhail
Munshi, Sarah
Davis, Dr. Sergio
Giralt and Dr. Guido
Tricot



October 3, 2002 New York, NY

*Institutional Insights on Myeloma

October 24, 2002 Chapel Hill, NC

*Institutional Insights on Myeloma

November 2, 2002 Greenwich, CT

MMRF "Friends for Life" Fall Gala

November 14, 2002 Baltimore, MD

*Institutional Insights on Myeloma

December 6, 2002 Philadelphia, PA

American Society of Hematology (ASH)

December 19, 2002 Teleconference

Update from ASH hosted by Ken Anderson, MD, Dana-Farber Cancer Institute and Jean-Luc Harousseau, MD, University Hospital Nantes, France. 1-2PM EST and available thereafter for one year.

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



STANFORD: (L-R) Dr. Beth Martin, Dr. Keith Stockerl-Goldstein, Kelly Bugos, RN, Dr. Paul Richardson, Dr. Mohamad Hussein, Sarah Davis and Dr. David Roodman

MD Anderson

CHAIR

Dr. Sergio Giralt
MD Anderson
Nikhil Munshi
Dana Farber
Dr. Guido Tricot
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Stanford

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Stanford University

Dr. David Roodman
Univ. Pittsburgh
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Cleveland Clinic
Dr. Paul Richardson
Dana Farber

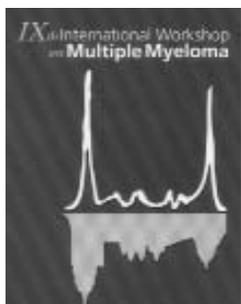
INDUSTRY UPDATE

Millennium Initiates Phase III Trial of Velcade™ (PS-341)

Millennium Pharmaceuticals has initiated its pivotal Phase III trial of its proteasome inhibitor Velcade™ (bortezomib) for injection (formerly known as PS-341, MLN341 and LDP-341). The study will include approximately 600 patients whose disease has progressed despite 1 to 3 previous therapies.

Patients will receive Velcade or high-dose dexamethasone. The trial will take place at over 60 sites in the United States, Canada and Europe and will evaluate efficacy and safety of the drug. Patients receiving high-dose dexamethasone who experience progressive disease may be eligible to receive Velcade as part of a companion study being conducted at each site. For information about the trial, contact Millennium's Medical Information Center at 1-800-589-9005.

Salamanca IXth International Myeloma Workshop



The MMRF in collaboration with the IXth International Myeloma Workshop, will be providing the most current updates from the bi-annual meeting, scheduled for May 23rd -27, 2003 in Salamanca, Spain. The workshop being held in a truly international setting, will provide new insights into the origin, progression and treatment of this incurable cancer.

Celgene's Immuno-modulatory Drugs (IMiDs™)

Two of Celgene's Immunomodulatory Drugs (IMiDs), Revimid™ (CC-5013) and Actimid™ (CC-4047), are being evaluated in patients with relapsed and refractory myeloma. Data from two Phase II trials of Revimid conducted at the Dana-Farber Cancer Institute and the Arkansas Cancer Research Center indicate that Revimid is generally well tolerated and has anti-myeloma activity. Phase III clinical trials are expected to begin later this year.

Actimid is currently being evaluated in a Phase I/II trial at Guy's Hospital, London. Interim analysis indicates that Actimid has an acceptable safety profile and anti-myeloma activity. At all doses, patients improved with therapy. Seven of the 18 patients had a 25% to 50% reduction in M protein, 3 patients had a ≥50% reduction and 8 patients had stable disease. Patients continued to improve with ongoing therapy and one patient achieved a complete response (disappearance of M protein in blood and urine).

IMiDs are oral drugs that are chemically linked, but functionally distinct from, thalidomide. They are more potent and have an improved safety profile over thalidomide. The IMiDs are thought to affect multiple pathways and multiple targets in myeloma cells.

Amgen's Aranesp™ Approved for Anemia Associated with Chemotherapy

Aranesp (darbepoetin alfa, Amgen) was recently approved for use in the treatment of anemia associated with chemotherapy. Aranesp stimulates the production of oxygen-carrying red blood cells and is closely related to the growth factor erythropoietin (epoetin alfa).

Aranesp maintains its level in the blood approximately three times longer than epoetin alfa. Aranesp is administered as an injection under the skin once a week. It was previously approved for the treatment of anemia associated with chronic renal failure (chronic kidney disease). See related story on Hematopoietic Growth Factors on page 8.

ASH 44th Annual Meeting

December 6th through the 10th, the MMRF will be attending the 44th annual American Society of Hematology meeting in Philadelphia, PA. The MMRF will be involved in the following programs at the event:

- ✓ Co-Sponsor of the Corporate Friday multiple myeloma program presented in an exciting new interactive case study format.
- ✓ Broadcasting a web cast from the meeting based on new information announced at the education sessions
- ✓ Hosting a teleconference, in conjunction with Cancer Care and hosted by Ken Anderson, MD, Dana-Farber Cancer Center and Jean-Luc Harousseau, MD, University Hospital Nantes
- ✓ Special edition Myeloma Focus newsletter on new medical announcements at ASH.

ASK THE EXPERT



This month's Ask the Expert features Lawrence H. Boise, PhD, one of the MMRF's 2001 Senior Research Award Winners. Dr. Boise is Associate Professor of Microbiology and Immunology at the Sylvester Comprehensive Cancer Center at the University of Miami.

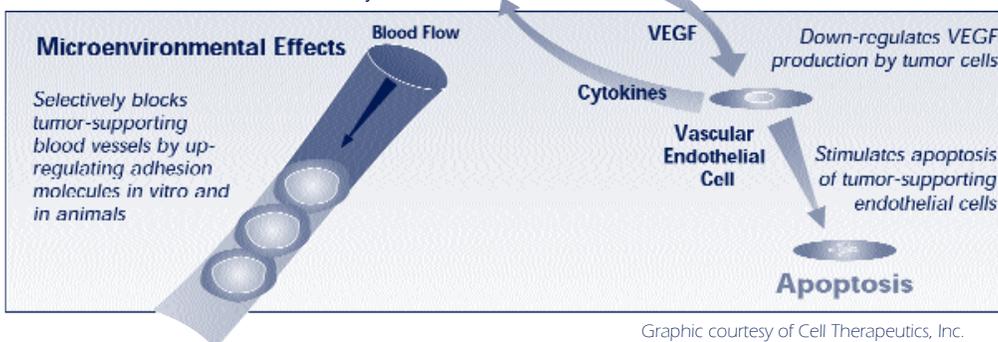
Q: I am considering participating in a clinical trial of arsenic trioxide. Can you

tell me how this drug works?

Arsenic trioxide (Trisenox[®], Cell Therapeutics, Inc., CTI) is an intravenous drug that is approved for the treatment of acute promyelocytic leukemia and is currently in Phase II trials in myeloma. It appears to have direct anti-myeloma activity in that it induces programmed cell death (apoptosis). (See figure.) It also displays indirect anti-myeloma effects, including effects on the bone marrow microenvironment and inhibition of angiogenesis.

Arsenic trioxide therapy has led to clinically significant responses in patients with relapsed and refractory myeloma. In a Phase I/II study being conducted here at the University of Miami, patients receive arsenic trioxide in combination with ascorbic acid (vitamin C), which appears to enhance its effects. The Phase I portion of the trial is complete and the

Anti-Myeloma Effects of Arsenic Trioxide



Graphic courtesy of Cell Therapeutics, Inc.

therapy was well tolerated with minimal side effects. The Phase II portion of the trial is currently underway and preliminary results from both phases are promising (see below). It is too early to determine duration of response or if patients will develop resistance to therapy. In an ongoing Phase II study at the Cleveland Clinic, 8 of 24 patients with relapsed and refractory disease treated with arsenic trioxide alone achieved a significant 25% to 50% reduction in M protein levels.

Response (reduction in M protein)	# of Patients
>50%	3
>25%	4
Stable disease	4
Not evaluable	3
TOTAL	14

Q: How do I find out if I am eligible to participate in a clinical trial?

All clinical trials have set eligibility criteria to ensure that the trial will provide clinically meaningful results. These criteria typically include specific characteristics you must have in

order to participate (inclusion criteria) and characteristics you cannot have (exclusion criteria). For example, a trial looking at the effectiveness of a drug in newly diagnosed patients will not be open to patients with refractory disease. Patients may be excluded from a trial for safety reasons (for example, if they have kidney disease that might be aggravated by the therapy being tested) or if they have received certain therapies beforehand.

You can find out whether you might be eligible to participate in a trial by checking the criteria listed in the MMRF Clinical Trials Monitor (CTM) or other clinical trial databases. If you fulfill the listed criteria, you will need to contact the site to confirm your eligibility.



You Need To Know

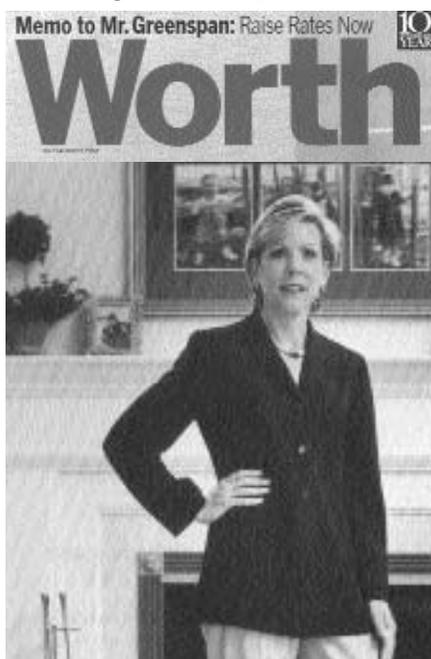
WORTH While Media

Worth Magazine July 2002 Features the MMRF

WORTH Magazine highlighted the MMRF in their July 2002 issue. The article focused on the following:

- ✓ incredible growth and achievements of the MMRF since it's start in 1998
- ✓ the strength and depth of the board and scientific advisors
- ✓ MMRF's successful collaborative partnerships with industry leaders, other nonprofits and government agencies working towards a cure for myeloma
- ✓ advocacy efforts and the success of the recent blood cancer bill

Reprints of the article are available by calling 203-972-1250 or emailing themmrf@themmrf.org.



MMRF Race for Research

continued from page 4

The MMRF would also like to thank Helen and Pat Stusser, Karen and Todd Larsen, Dr. Larry Donohue, NW Myeloma Fighters support group, Carol Lacount and Candice Douglass for all of their efforts in locally coordinating this event. Special kudos go out to the event's major sponsors - Cell Therapeutics, Inc. (CTI), Schwartz Brothers Restaurants, Benaroya Company, Costco, NeoRx and KGF Holdings. A tremendous effort from a very special, committed community.



Thank you Seattle!

Enthusiastic members of the Schwartz Brothers Team



Participants heading to the starting line.

The MMRF is sad to announce the passing of a good friend and supporter of the MMRF, **J. Carter Brown** – an Honorary Board Member and the Director of the National Gallery of Art in Washington DC. Mr. Brown recently served as the Honorary Dinner Chair at the MMRF's Boston Event.



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ACCELERATING THE SEARCH FOR A CURE

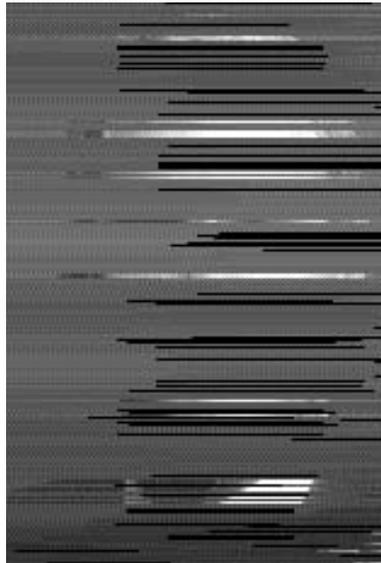
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The information herein is not intended to replace the services of trained health professionals (or to be a substitute for medical advice.) You are advised to consult with your healthcare professional with regard to matters relating to your health,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

Bill Wilson



Bill Wilson

As the founder of William Wilson & Associates, a private real estate investment company in San Francisco, CA and a premier developer for high tech office space in the Bay Area, Bill Wilson knows well the value of responsible, targeted and aggressive approaches to business investment. As a multiple myeloma patient for the last 18 months, he also knows well the value of responsible, targeted and aggressive approaches to research and treatment of a disease that seemed at first to have no game plan for a cure.

It was this lack of information and direction that led Bill to first rely on other patients' experiences as models for possible treatment. Upon learning about a successful University of Arkansas-based stem cell transplant of a myeloma patient he knew, he decided to travel to Arkansas himself to undergo similar treatment. But after complications with his immune system left him weaker than before and he quickly learned that "what works for one person may not for the next."

"That's when I became more interested in alternative methods of treatment and began to seek out the people and institutions that were supporting them." One of Bill's friends had been a Harvard business school classmate of Kathy Giusti's and encouraged him to call her. "I was so impressed by Kathy's focus and her optimistic approach to alternative therapies. She was running the Foundation like a business and the proactive, high energy, entrepreneurial spirit appealed to my business sense and to the obstacles I was encountering as a patient."

The combination of Bill's strategic business experience and his perspectives as a patient are helping to define his role with the MMRF. As the newest member of the MMRF Board and after only recently attending his first meeting, he is confident that he can help to make a difference by raising funds, encouraging targeted "risk taking" on new and promising therapies and contributing his own strategic and financial support.

"I don't think that most typical nonprofits would be willing to take the kinds of critical risks on new research that the MMRF does." It is only this kind of risk taking that can have the greatest pay-off in business and the greatest impact in the search for a cure.



MMRF CLINICAL TRIALS MONITOR (CTM)

TEERING OFF TO A CURE

Your Top Source for Myeloma Clinical Trials

The MMRF Clinical Trials Monitor (CTM) database has been well received by members of the myeloma community. Over a recent 3-month period, 3,400 individuals conducted a search: 60% were patients, 30% were family or friends, and the remainder were health care professionals and researchers. The type of trial most often searched is the Novel Drug category, where information on over 30 trials of cutting-edge therapies can be found. CTM provides access to the most current information about open myeloma clinical trials. CTM is updated monthly and currently lists over 50 trials, mainly single institution and pharmaceutical trials not listed elsewhere. To learn about the latest Multiple Myeloma clinical trials, simply go to: <http://www.multiplemyelomatrials.org>

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

University of Arkansas for Medical Sciences (AK)

Kathryn Bailey, CCRP

501-296-1503, ext. 441 □ BaileyKathrynL@uams.edu

A Phase II Study of Gleevec™ (Imatinib mesylate, formerly known as STI-571) in patients with relapsed and refractory myeloma.

Memorial Sloan-Kettering Cancer Center (NY)

Dr. Raymond L. Comenzo □ 212-639-8086

Total Therapy II - A Phase III Study for Newly Diagnosed Multiple Myeloma Evaluating Anti-Angiogenesis with Thalidomide and Post Transplant Consolidation Chemotherapy

University of Arkansas for Medical Sciences (AK)

Jeanne Cromer, MPH, CCRP □ cromerjeanal@uams.edu

A Phase II Trial of Combination Bisphosphonate and Anti-Angiogenesis Therapy with Pamidronate and Thalidomide in Patients with Smoldering/Indolent Myeloma

University of Arkansas for Medical Sciences (AK)

Jeanne Cromer, MPH, CCRP □ cromerjeanal@uams.edu

Phase III Randomized Study of Dexamethasone With or Without Thalidomide in Patients With Newly Diagnosed Multiple Myeloma

H. Lee Moffitt Cancer Center and Research Institute (FL)

Julie A. Kish □ 813-972-8432

Robert H. Lurie Comprehensive Cancer Center, Northwestern University (IL)

Al Bowen Benson, III □ 312-695-6180

Mayo Clinic Cancer Center (MN)

Thomas M. Habermann □ 507-284-2511

Cleveland Clinic Taussig Cancer Center, (OH)

Robert Dreicer □ 216-445-4623

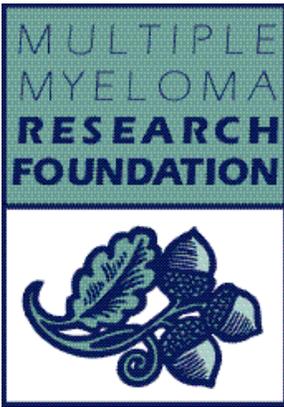
This summer saw many dedicated golfers teeing off to raise funds toward finding a cure for multiple myeloma.

Albany, NY: several members of the Young Family, spearheaded by Tim Young, held the first annual Albert G. Young Memorial Golf Tournament at Burden Lake C.C. The event, which was attended by over 70 golfers, was a tremendous success raising over \$7,000 for myeloma research. Special thanks to the Young Family and their many friends and business associates who made it all possible.

Beverly, MA: the 4th Annual Bruce Figurido Multiple Myeloma Golf Tourney was held at the beautiful Beverly Golf & Tennis Club. Host, Bruce Figurido and event chair, Lou Malaquias, welcomed over 80 golfers to this fun and inspirational event. Over \$8,000 was raised at this event bringing the four year total to over \$22,000! Great job by the Figurido and Malaquias families!



The Bruce Figurido / Multiple Myeloma Golf Fundraiser Committee and Family (L-R) Wayne Figurido, Joann Figurido, Nancy Malaquias, Lou Malaquias, Winifred Figurido and Richard Figurido



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Accelerating the Search for a Cure

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NYC EVENT RAISES \$450,000 AND AWARENESS FOR THE RACE TO FIND A CURE FOR MULTIPLE MYELOMA



Mel Stottlemire presented with the MMRF Lifetime Achievement Award from Roger Clemens.

Kathy Giusti (center) with Mrs. and Mr. John Jackson. Mr. Jackson, CEO of Celgene, Inc. accepted the MMRF Corporate Leadership Award, on behalf of his company, which is responsible for bringing thalidomide and Revimid to the fight against multiple myeloma.

