JUNE 2003 VOLUME 5 NUMBER 6

MYELOMA TODAY

A PUBLICATION OF THE INTERNATIONAL MYELOMA FOUNDATION

HIGHLIGHTS

Dear Reader,

Little Rock Arkansas: for those people not involved with Myeloma, the name Little Rock Arkansas evokes memories – good or bad – of President Clinton. For those of us who live in the Myeloma world, it means one thing: Dr. Bart Barlogie and his team at the center there.

I can remember the first time I heard about Dr. Bart Barlogie and the transplant center in Little Rock. It was when Brian Novis had just founded the IMF and then went to Arkansas to visit with Bart. Co-founders of the IMF, Dr. Brian Durie and Brian Novis, were friends with Bart and extended an invitation asking him to become a member of the IMF's Board of Directors.

Despite this long friendship with Bart, or Black Bart as he often refers to himself, I had never been to Little Rock — that is until last month when the IMF held its Patient & Family Seminar there. Going to Little Rock was quite an experience. It was a place I had heard about for years, since patients went there for a transplant or two or three and it had become legend – like going to Lourdes. But I had never been there.

The IMF, Dr. Durie, Lisa Paik, Spencer Howard, and I pulled into town and immediately met Mary Fritsch and Julie and Ruth McNeill, who were on the same shuttle bus. As is often the case among us IMFers, we began chatting, and it turned out that they were mother and daughters from Michigan attending their first seminar. Their 33-year-old son and brother had recently been diagnosed. Feeling both apprehensive and hopeful, they were embarking on a journey to learn what they could do, and needed to know how to help a loved one combat this disease.

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This issue of
Myeloma Today
is supported by
Millennium Pharmaceuticals

FDA APPROVES VELCADE™ FOR THE TREATMENT OF RELAPSED AND REFRACTORY MULTIPLE MYELOMA

On May 13, 2003, the U.S. Food and Drug Administration (FDA) approved VELCADE™ (bortezomib) injection (Millennium Pharmaceuticals, Inc.) for the treatment of multiple myeloma patients who have received at least two prior therapies and have demonstrated disease progression on the last therapy.

The FDA reviewed the application for VELCADE in less than four months. VELCADE is the first in a new class of anticancer agents known as proteasome inhibitors. It was approved under the accellerated approval program. The program helps make promising products for serious or life threatening diseases available earlier in the development process by allowing approval to be based on a promising effect of the drug, such as tumor shrinkage, before there is actual evidence of improved survival or other clinical benefit. The drug's commercial sponsor worked closely with the FDA to define the studies that would be conducted.

The following is excerpted from the Millennium press release announcing the FDA approval of VELCADE:

Cambridge, Mass., May 13, 2003 Millennium Pharmaceuticals, Inc. today received approval from the U.S. Food and Drug Administration (FDA) to market VELCADE for the treatment of multiple myeloma patients who have received at least two prior therapies and have demonstrated disease progression on the last therapy. The effectiveness of VELCADE is based on response rates. There are no controlled trials demonstrating a clinical benefit such as an improvement in survival. VELCADE, the first of a new class of medicines called proteasome inhibitors, is the first treatment in more than a decade to be approved for patients with multiple myeloma - a cancer of the blood.

"The FDA approval of VELCADE represents a major advance in our

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Dedicated to improving the quality of life of myeloma patients while working toward prevention and a cure.

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VELCADE – continued

fight against multiple myeloma," said Kenneth Anderson, M.D., from Dana-Farber Cancer Institute in Boston, Mass. "With its new and unique mechanism of action of inhibiting the proteasome, VELCADE is different from traditional chemotherapies and represents a new treatment option for patients."

"Millennium was established with the goal of using innovative science to develop novel products that would address the unmet medical needs of patients," said Mark Levin, chief executive officer and chairperson of Millennium. "Our success in bringing VELCADE to patients so rapidly reflects the high level of collaboration among many partners, both internally and externally. Moving forward, Millennium will continue its mission of developing breakthrough products that make a difference in patients' lives."

VELCADE and proteasome inhibition represent a completely new approach to treating multiple myeloma. The development of this product is based on the Company's deep understanding of cancer disease pathways and the effect of proteasome inhibition on those pathways. The proteasome is an enzyme complex that exists in all cells and plays an important role in degrading proteins that control the cell cycle and cellular processes. By blocking the proteasome, VELCADE disrupts numerous biologic pathways, including those related to the growth and survival of cancer cells. □

To learn about the development of VELCADE™, please see the interview with the doctor who discovered the drug, Julian Adams, Ph.D., on page 3 of this newsletter.

To view the full Millennium Pharmaceuticals, Inc. VELCADE™ press release, please visit *www.millennium.com/media/news/2003/2003-05-13-0.asp*.

To view the FDA press release, please visit *www.fda.gov/bbs/topics/NEWS/2003/NEW00905.html*. To contact the FDA's Consumer Inquiries Line, please call (888) INFO-FDA.

The FDA's US package insert (full prescribing information, clinical trial information, safety, dosing, drug-drug interactions and contraindications) can be viewed online at *www.fda.gov/cder/foi/label/2003/021602lbl.pdf*.

IMF CALENDAR

May 23-27, 2003
IXth International Myeloma Workshop
Salamanca, Spain

May 31 - June 2, 2003
ASCO Annual Meeting
Chicago, IL

June 5-7, 2003
ECOG Group Meeting
New Orleans, LA

June 8, 2003
"From Handel to Hawkins" MM Fundraiser
Bronx, NY

June 11, 2003
"Robert Cait at the Laugh Factory" MM Fundraiser
Los Angeles, CA

June 17, 2003
Royal Marsden Hospital "Grand Rounds"
Sutton, Surrey, England

June 21, 2003
IMF (UK) Patient & Family Seminar
London, England

June 22, 2003
"Hair Cares" MM Fundraiser
Glen Mills, PA

June 27-29, 2003
IMF Support Group Leaders' Retreat
Durham, NC

June 30, 2003
Bob Canter Corporate Challenge Golf Tournament
Stamford, CT

July 6, 2003
"Musicians Against Myeloma" MM Fundraiser
Sea Cliff, NY

August 2, 2003
Dr. Robert A. Kyle Award Dinner
Rochester, MN

August 10-17, 2003
Myeloma Awareness Week
Nationwide

August 15-16, 2003
IMF Patient & Family Seminar
Atlanta, Georgia

August 16, 2003
"Mile High March for Myeloma" MM Fundraiser
Lake Arrowhead, CA

August 23, 2003
Ralph Ferrizzi Memorial Golf Tournament
Lake Arrowhead, CA

August 25, 2003
Corporate Cup Challenge Golf Tournament
Naperville, IL

September 6, 2003
IMF (UK) Patient & Family Seminar
Cardiff, Wales

September 27-28, 2003
IMF Patient & Family Seminar
Heidelberg, Germany

October 1-5, 2003
SWOG Group Meeting
Seattle, WA

October 4, 2003
Ribbon of Hope - Making a World of Difference
Anniversary Gala
Seattle, WA

For more information, please visit
www.myeloma.org or call (800) 452-CURE.

PROFILE INTERVIEW: *Julian Adams, Ph.D.*

The doctor who discovered VELCADE™ talks to Myeloma Today UK.

Myeloma Today (UK): Please tell us a little about yourself. Where did you study and how did you become interested in proteasome inhibitors?

Dr. Julian Adams: I was recruited to a startup biotech company, Myogenics (which changed its name to ProScript), started by Alfred Goldberg, Tom Maniatis, Michael Rosenblatt, and Kenneth Rock, all Professors at Harvard in 1994. I had been working in established pharmaceutical companies for 12 years and had successfully discovered drugs, notably Viramune, for HIV. There were a series of key discoveries in the Maniatis, Goldberg, and Rock labs, about the role of the proteasome in cellular biology that I found absolutely fascinating, so I thought this might be a tremendous new opportunity for drug discovery.

MT (UK): What is your research history? What other drugs/treatments have you worked on previously?

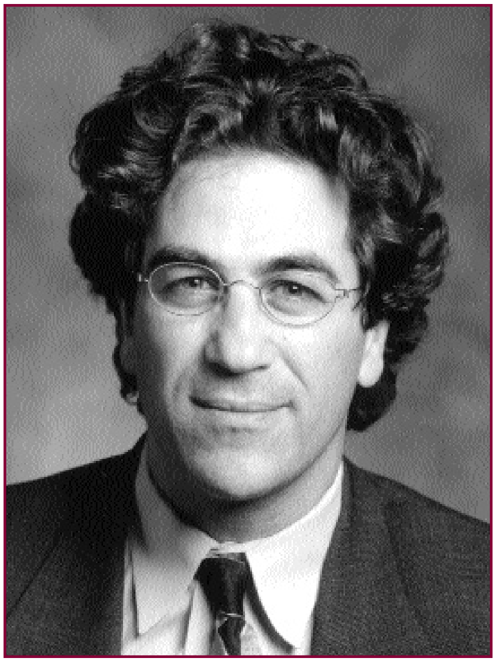
Dr. Adams: I started my career at Merck Frosst in Canada working in drug discovery for asthma. I moved to Boehringer Ingelheim to work on HIV during 1989-94.

MT (UK): When did it become apparent that you were on to a potential exciting breakthrough?

Dr. Adams: We had discovered a very potent inhibitor of the proteasome in our labs, which eventually led to VELCADE (or PS-341, as it was then called) in the fall of 1994. It was about one year later that we did our first proof of concept study in cancer in a collaboration with Beverly Teicher at Harvard. We showed that we could inhibit tumor growth in a mouse model of lung cancer. I became convinced at that point that we had a viable treatment, but we still didnt know how best to use the drug. What dose and schedule would be optimal? Would it be safe enough? We spent about two more years figuring the details out in laboratory studies.

MT (UK): How difficult was it to get VELCADE from the bench to the bed, as it were?

Dr. Adams: Incredibly tough! Early on in its development no one believed in the molecule, or the target! It was assumed that this approach would lead to overwhelming toxicity. Many needed to be convinced. Our own employees at ProScript were skeptical, the scientific founders, the Board of Directors, all in the company. As for the outside world, it was next to impossible. David Livingston, of the Dana Farber Cancer Institute, joined our scientific board and helped me enormously in changing the views within the company. I also forged a formidable alliance with the National Cancer Institute, who was also initially skeptical, but under the guidance of Edward Sausville at the NCI, we kept building the evidence for a case to see VELCADE through. After completing rigorous pre-clinical studies, especially safety studies, we presented to a committee at the NCI (Chaired by Sausville) and won unanimous approval to begin to prepare the phase I program. In parallel, I sought assistance from CapCURE, a prostate cancer foundation, who funded Christopher Logothetis, Chairman of Genitourinary Oncology at the MD Anderson Cancer Center, and we began our first trial in October 1998. Things really took off when we were eventually acquired by Millennium in 1999. The members of the oncology franchise are a unique and fantastically talented group of people. At Millennium, VELCADE was adopted at a professional level with the resources and budget to really drive the scientific and medical program.



Julian Adams, Ph.D.

MT (UK): What do you think were the key elements in being able to achieve this?

Dr. Adams: The data, the data, the data, and tons of stubborn perseverance on the part of my team. Peter Elliott was the project leader and as tenacious as ever at driving us forward. In the end Sausville at NCI, Howard Soule at CapCURE, and Chris Logothetis took a chance on PS-341 and I am eternally indebted to those brave souls. Make no mistake though, the data won the day! At Millennium this was well recognised by the management team, led by Mark Levin, and they with the oncology team came together to make VELCADE a priority and drive the program towards the successful registration.

Eventually, our phase I studies, in a trial led by Dr. Robert Orlowski at University of North Carolina, revealed that multiple myeloma was particularly susceptible to VELCADE. We next teamed up with Ken Anderson at the Dana Farber Cancer Institute, to design a phase II trial to fully test this hypothesis. We also went back to the laboratory, and together with Ken's lab and scientists at Millennium, we were able to better understand some of the molecular components of what VELCADE is specifically doing in attacking multiple myeloma. This effort should be a paradigm of how to do good translational research. That is, we learn in the laboratory, take our findings to the clinical setting, learn from the patients, and return to the laboratory to gain further understanding and insights. This should be an interactive process so as to optimize the use of a new experimental agent.

MT (UK): How important is it to work with patients and patient advocate groups during this process?

Dr. Adams: Extremely important! Ken Anderson introduced us to the IMF and MMRF. We are in continuous contact with the advocacy groups, and particularly the Multiple Myleoma Research Foundation and the International Myeloma Foundation, headed by Kathy Guisti and Susie Novis respectively. They have both been marvellous individuals who have suffered as a result of this disease, directly (Kathy) or indirectly (Susie's husband) and who have committed their lives to help patients who are suffering. We have begun trials in Europe and we have been liaising with Eric Low and IMF (UK) who have provided invaluable support to the team. These people are an inspiration to me and my colleagues at Millennium, both scientists and business people, to make our resources and talents available to effect a treatment for multiple myeloma.

MT (UK): Often, gaining access to new drugs is very difficult and protracted. Do you think patients should have access to drugs such as VELCADE sooner in appropriate circumstances, outside a clinical trial setting?

Dr. Adams: We believe that the best way to serve patients to gain broad access to

Please see next page

DR. ADAMS – continued

VELCADE is to get the drug approved through the regulatory process. We have several trials around the world which include treatments for different stages of myeloma. We are working tirelessly with the regulatory authorities to bring this drug to market as expeditiously as possible.

MT (UK): If yes, where do you think pressure should be applied to make this happen?
Dr. Adams: Pressure can be applied at all levels. Firstly, we at the company are working as quickly as possible to do everything we can to monitor and analyze the clinical data. We are also engaging the regulatory agencies to educate them about the utility of VELCADE. The National Cancer Institute is consulted regularly by these agencies. We have made presentations and lectures describing the data surrounding VELCADE. Finally, the advocacy groups themselves can play a key role as impartial lobbyists to get the attention of patients, physicians, and government bodies to provide further support and information.

MT (UK): In general terms, where do you see the treatment for myeloma heading and specifically, where do you see the role of VELCADE in the immediate and long-term future?
Dr. Adams: I think that the immediate future looks promising in myeloma. We are studying the drug in first, second, and third line treatment both as a single agent and in various combinations with other active drugs, such as dexamethasone, doxorubicin, and other therapies. We hope that these options will provide long term relief and management of the disease. We are also exploring a maintenance schedule where VELCADE would be given less frequently but for a longer period to maintain patients in remission. Eventually, we are hoping to manage the disease over many years with the goal of living a normal, high quality life for patients.

MT (UK): What's the latest news on VELCADE straight from the horse's mouth?
Dr. Adams: I am very excited about the prospects for VELCADE. It is clearly an agent that is biologically active, and we believe providing clinical benefit. The results of two phase II studies of VELCADE in patients with relapsed and refractory myeloma were presented at the annual meeting of the American Society of Hematology in Philadelphia, PA in December, 2002. In addition, on January 21, 2003, Millennium filed a New Drug Application (NDA) with the FDA, and just a few weeks later on March 10, 2003, the FDA accepted the application and granted priority review to VELCADE. On February 4, 2003, Millennium submitted a Marketing Authorization Application (MAA) for VELCADE to the European Agency for the Evaluation of Medicinal Products (EMEA), which was accepted on February 25, 2003. Importantly, we are also continuing to enroll patients in an international phase III study comparing VELCADE to high dose dexamethasone in patients with relapsed or refractory multiple myeloma.

MT (UK): Is there scope to develop derivatives of VELCADE that could be potentially even more effective?
Dr. Adams: We are working on other promising agents in the laboratory in the ubiquitin proteasome pathway which we hope will be improvements on VELCADE, but it is too soon to predict if these ideas will result in greater efficacy.

MT (UK): What are you working on in the lab at the moment?
Dr. Adams: As I mentioned above, we are mining the ubiquitin proteasome pathway to explore many other targets. The Millennium oncology franchise has a very exciting pipeline of new targets and inhibitors which block the growth and the survival of tumors. We are attacking the fundamental machinery that leads cancer cells to survive, grow, and become metastatic. Using our knowledge of the signal transduction pathways, as well as our superior genomics technology, we feel that we are able to select the best targets to thwart cancer. The biology team at Millennium has put together a world class research effort and we will be testing some of these new compounds in clinical trials next year. Let me also remind you that we have three additional exciting drugs which are already in early stage clinical trials now. We have a growth factor inhibitor, MLN518, a Flt-3 inhibitor which targets AML; we have an antibody directed at PSMA conjugated either to a radio-label or toxin payload for the treatment of prostate cancer; and through our collaboration with Xenova, in the UK, we are testing some novel DNA interacting agents which appear very potent in animal models of lung and colon cancer.

MT (UK): What are your hopes for the future in terms of the treatment of myeloma and cancer generally? Is cure a reality?
Dr. Adams: I think it would be premature to talk about a cure for cancer. I do believe that this is an exciting time with many new prospects to successfully treat cancers, arrest their growth, and even cause remission of

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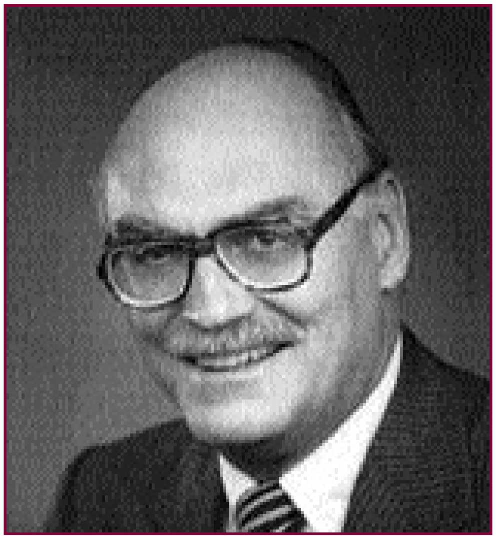
LIFE LESSONS FROM A POLITICIAN

How Utah's Late Governor Taught Me to Live with Multiple Myeloma

Dan Bammes



Scott Matheson

by Dan Bammes

Salt Lake City has a beautiful new courthouse across from City Hall on State Street. It's named for a former governor, Scott M. Matheson. In the rotunda of the courthouse, a life-size bronze statue of Governor Matheson comes striding out to meet you, its hand extended. It captures the energy Scott Matheson had in life. He was an extraordinary man.

Scott Matheson died at the age of 61 from multiple myeloma. In the 1950's, when he worked as a local prosecutor in the town of Parowan in southern Utah, he used to go out with friends early in the morning to watch the flash from atomic bomb tests more than a hundred miles away in Nevada. Like most people in that era, he didn't think much about the fallout that spread from the test site across the West, and in fact, across the country. Today, there's enough association between multiple myeloma and fallout exposure to include it on the list of diseases for which compensation is available from the federal government under the Radiation Exposure Compensation Act. Matheson's family believes it was the cause of his cancer.

It may have been for me as well, though it's difficult to know for sure. I used to spend part of every summer at my grandmother's home in Kanab, just north of the Arizona state line. It's likely I was exposed to fallout from the Sedan test in 1962, possibly the dirtiest nuclear weapons explosion in the history of the program. I was six years old.

In January 2003, I was home with a respiratory infection when I felt a severe pain in my chest after a hard coughing spell. The next day I went to the doctor, who took an x-ray, and found a spot he was worried about. Three weeks of follow-up diagnostics later, I was told I had multiple myeloma. A plasmacytoma on my 6th rib had caused a pathological fracture. Without that, I might not have been diagnosed until the disease was in a much more advanced stage. As it is, I'm in Stage I.

I've been through radiation treatments for the plasmacytoma and I'm now getting thalidomide and dexamethasone. Eventually, I'll enter the University of Utah hospital for a stem cell transplant. While friends, including some other myeloma patients, tell me this will just be a "speed bump" in my life, I have more concern than that, though I've tried not to worry too much about problems that I don't have yet.

Remarkably, having cancer has been among the more positive experiences in my life. I've discovered so many people who really mean it when they ask if there's "anything I can do." That includes a member of a neighborhood church who helps me with my yard (the broken rib is still healing) and a very understanding employer at KUER, the public radio station at the University of Utah (*www.kuer.org*). My employment comes with excellent medical insurance, and I'm a five-minute walk from the Huntsman Cancer Institute, where I'm getting state-of-the-art medical care. My family has been enormously supportive.

I have to say my religious position has also been a help. I am Buddhist, and having cancer brought to mind a teaching called the Kosala Sutta, in which the Buddha teaches a king whose wife has just died that it is futile to hope that something subject to illness and death, such as ourselves, will not get sick or will not die. To me, it seems a far more realistic position than hoping for a cure through faith. To accept what is seems far more compassionate than to wish for some nebulous maybe.

Perhaps the most difficult challenge I'm facing now is "getting over it." In the three months since my diagnosis, multiple myeloma has dominated my consciousness in a way few other things have. I need to find a way to live with this as a chronic disease, part of my life but not the center of my attention. It seems a given that the cancer will progress, even if my doctors are doing all they can. In the meantime, every day is a precious opportunity for mindful attention to everything from spring violets to the Dixie Chicks.

Scott Matheson was a thoughtful, decent man, a smart politician who spoke often about "good public policy." Utah is far better off for his leadership, though perhaps poorer because he chose not to run for a third term. When he passed away, a newspaper editorial proclaimed him "too young." I disagree. He left us at a time when we could remember his energy and commitment. He was and is an excellent role model, and his example is just one more reason why it seems pointless to feel sorry for myself. ☐

Dan Bammes chronicles his experience with multiple myeloma on his weblog at *http://www.mustard.com/myeloma.htm*

To submit your story for publication in *Myeloma Today*, please contact Marya Kazakova at (800) 452-CURE (2873) or *mkazakova@myeloma.org*.

MYELOMA UPDATE: *Overview of the IXth International Workshop on Multi*

Brian G.M. Durie, M.D.

By Brian G.M. Durie, M.D.

Every two years, the myeloma scientific community gets together to participate in the International Myeloma Workshop. This year, the IXth is being held in Salamanca, Spain. This meeting is co-chaired by IMF Scientific Advisors Prof. Jesus San Miguel and Prof. Joan Blade.

The Salamanca program is packed with invited and submitted presentations starting May 23rd and running through May 27th. The agenda is available for viewing at *www.myeloma2003.usal.es*.

The core program with invited speakers covers thirteen areas:

1. **Genetics of myeloma cells**
2. **New molecular techniques/results**
3. **Immune biology**
4. **MGUS**
5. **Signal transduction pathways**
6. **Bone marrow microenvironment**
7. **New prognostic systems**
8. **Mouse models**
9. **Maintenance and supportive care**
10. **The role of auto transplantation**
11. **Allogeneic transplantation**
12. **Novel therapies**
13. **Vaccine strategies**

The submitted abstracts, numbering over 500, cover a wide range of topics, which will mostly be presented in poster sessions between the oral sessions. This is what makes for such a busy schedule. The two best submitted abstracts in each of the thirteen topic areas have been selected for oral presentation.

Other corporate and foundation meetings make the agenda truly "jam packed." On Friday the 23rd, corporate symposia include arsenic trioxide (Trisenox®: CTI); thalidomide and analogs (Celgene); Aredia™/Zometa™ (Novartis).

The International Myeloma Foundation has several scheduled programs, including:

- **IMF Working Group dinner** – Thursday, May 22nd
- **European Patient Support Group Leaders meeting** – Friday, May 23rd
- **Scientific Advisors luncheon** – Saturday, May 24th.

CORE PROGRAM

Many of the topics in the core program of the Salamanca workshop are always discussed and updated at the International Workshops. This year, the greatest anticipation surrounds presentations about new molecular information. The other really new aspects are discussed below:

Gene Expression Profiling – has revealed both gene patterns, which can be used for hierarchical classification (to match clinical classifications), as well as genetic expression of specific RNAs and proteins linked to myeloma features such as bone disease and anemia. There is excitement about expression of a protein called DKK1, which is linked to the suppression of osteoblasts and therefore interruption of bone healing in myeloma patients. There has been an exponential increase in understanding of the molecular biology of bone disease in myeloma and details will be presented as part of several sessions. Obviously, the hope is that new therapies can emerge from this higher level of knowledge.

Immune Biology – is also an area of new knowledge. As for molecular biology, the complexity of the processes being uncovered is impressive. Just how to modulate this complexity of immune regulation to the advantage of the myeloma patient will be a challenge.

Myeloma classification, prognosis, and staging [see discussion of the International Prognostic Index]. New systems for classification, prognosis assessment, and staging have been under development in the past 2 years and the results will be presented at the Salamanca meeting. These systems, which are the cornerstone for all programs for myeloma patient management, can provide a reliable framework for international clinical research efforts. For example, the new **IPI Staging System** is shown in the Table below.

STAGE 1	β2M < 3.5 ALB ≥ 3.5
STAGE 2	β2M < 3.5 ALB < 3.5 or β2M 3.5 – 5.5
STAGE 3	β2M > 5.5

β2M = serum β_2 microglobulin in mg/dl
ALB = serum albumin in g/dl

GOOD AND POOR RISK GROUPS

- Age is the only additional factor that significantly impacts outcome.
- Survival for > 5 years is associated with age < 60 years.
- Survival for < 2 years is associated with age > 60 years. Other correlations in this category include: platelet count< 130,000/mm^3 and LDH serum level above normal.
- Cytogenetics do influence outcome, however, chromosome 13 deletion and presence of complex chromosome abnormalities do not add to the impact of age, β2M, and ALB.

Presentation of the International Prognostic Index 2003 IMF Senior Research Grant: Jesus San Miguel, Phil Greipp, and Brian Durie

Signal transduction and bone marrow micro environment – Much new information will be presented. However, just how to use this information and to what extent new therapies target specific pathways and cell-cell interactions remains to be seen. Thus far, the research has been **retrospective**, in that **after** it was discovered that thalidomide and its analogs as well as VELCADE™ are very effective treatments, the potential mechanisms of action are being explored. This type of **retro research** is interesting, but not automatically productive in the development of further therapies. Mouse model systems may help and several will be discussed.

Autologous Stem Cell Transplantation (ASCT) – This may be a watershed meeting with regard to ASCT. For the last decade, the role of ASCT has been under scrutiny. Now, several groups including the French (IFM), U.K. (MRC), Spanish (GEM/ Pethema), and U.S. (UAMS: Barlogie) will present long-term follow-up data for panel discussion. In addition, tandem transplant, and transplant in special circumstances such as renal failure, older patients, and systemic amyloidosis will be addressed. The panel will focus on the question: "Has ASCT become the gold standard treatment in multiple myeloma?" The overall outcome with ASCT is definitely superior in the majority of trials/studies to be presented. Can ASCT now be routinely recommended for all patients? Is ASCT especially recommended for good and/or poor risk subsets of patients? These and other question will be actively debated. The additional role of "mini-allo" (non-myeloablative) transplant will be discussed in a separate roundtable.

Novel Therapies – Most of the results with the "novel" therapies such as thalidomide, Revimid™, Actimid™, and VELCADE™ are already widely known. Thalidomide is now one of the most widely used drugs in the myeloma community in the U.S., despite the fact that it is not FDA approved in this setting. The widespread use of thalidomide has been well documented at the IMF Patient & Family Interactive Seminars. VELCADE™ has now received FDA approval for use in relapsing/refractory myeloma. Undoubtedly, the focus of attention in Salamanca will be the "not-so-novel" follow-up data and discussions with regard to the future integration of these drugs into overall myeloma management, including ASCT.

Salamanca Analysis and Impact – The IMF has recruited a cadre of top researchers, advisors, and clinicians to analyze the impact of the Salmanca presentations. A **Salamanca Guide** will be published immediately after the meeting and made available to IMF members. In addition, the IMF Myeloma Minute will carry all the breaking news stories and any additional new information. Copies of the **Salamanca Abstracts** will also be available as hard copy as well as online at *www.myeloma2003.usal.es*.

INTERNATIONAL PROGNOSTIC INDEX (IPI)

To develop the new IPI staging system, data have been gathered on 11,179 patients from 17 institutions around the world, including the U.S., Europe, and Asia. The prognosis for patients receiving both conventional-dose and high-dose therapy are being assessed. The most promising IPI staging system is a combination of serum β2 microglobulin and serum albumin, very similar to the SWOG system.

The IMF International Study Group is also working to identify patients with particularly poor (median survival 12-24 months) versus very good survival (median survival > 5 years). Risk factors associated with poor survival are elevated serum creatinine, low platelet count, poor performance status, age > 65 years, and elevated LDH values if available. Conversely, survival of >5 years is associated with absence

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Presentation of the Bank On A Cure™ 2003 IMF Senior Research Grant: Susie Novis, Brian Van Ness, and Gareth Morgan

LETTERS

I am married to a dreamboat husband, a mother of two wonderful men, and granny to the girls who light up my life. On July 23, 1999, at 53 years young, and at the pinnacle of my 25-year public relations career, I was struck and terrorized by multiple myeloma. At that moment, I felt unable to live with (what I envisioned) as debilitating torture and pain of treatment of this disease.

I took hold of myself and decided to go to any length to get healthy. For me and my husband Bill, education made all the difference. We contacted the IMF and began calling those IMFers who were willing to be "buddies" for newly diagnosed people. They provided me with hope and inspiration when I was most overwhelmed.

My oncologist encouraged me to participate and volunteer at a local branch of The Wellness Community. Bill and I took refuge in the warmth and knowledge we found there, and that support has been crucial to my recovery. Now, I volunteer as the MM resource person at TWC, providing information to our MM support group. When a newly diagnosed person is referred to me, I have the chance to share my experiences, strength, and hope, and I feel renewed too!

Today, after participating in a clinical trial with extensive treatments and autologus stem cell rescue, I am nearly 4 years into remission. Being in remission is no success story in the ordinary sense of the word. It is a story of suffering and fear transmuted, under grace, into hope. This experience has brought along many blessings. My relationships with people are sweeter, more endearing, and closer. The experts say there is no cure for myeloma. I say there is — all the wisdom and care from my supporters make me know that I am not alone in this. Should we ever have the chance to meet, I'd like for you to look into my eyes and see the gratitude for my recovery. I'm excited about the future, knowing that life beckons me.

CHERYL LAUZON, Florida

Q&A: Get Your Questions Answered

The IMF is happy to announce a new feature of the Myeloma Minute, the Question of the Week. Each issue features a question that has been recently addressed to the IMF Hotline. Our answers are not intended as medical advice, but as information to discuss with your doctor.

Q: I have just been diagnosed with what my doctor called "non-secretory" myeloma. He says that the only way to monitor how well my treatment is working is to do repeat bone marrow biopsies. This sounds awful to me. Do you know if there is any other way to monitor my myeloma?

A: About 1-3% of myeloma patients do not make enough abnormal (monoclonal) protein to be monitored by standard blood and/or urine tests. This group of patients is difficult to diagnose and to monitor during treatment. Within the past year, an important new test — the Freelite test — has come on the market. It is extremely helpful for diagnosing and monitoring these patients. It also useful for monitoring patients with amyloidosis.

With the Freelite test, pproximately 70% of the patients formerly thought to have non-secretory myeloma test positive for the presence of free light chains (i.e. Bence-Jones protein) in the blood. What this means is that the majority of patients with non-secretory myeloma have low-level Bence-Jones myeloma that has gone undetected with previous tests. The very sensitive Freelite test enables doctors to diagnose these patients and to monitor them with greater accuracy during treatment, remission, and relapse.

The Freelite test should not be confused with an older test called "Serum Light Chain Analysis." The older serum light chain test is rarely if ever administered because it is not particularly useful. The new Freelite test will have the name "Ultraquant" on the lab report. If your doctor is unsure where to order the test, please call the IMF hotline at (800) 452-2873, and we will be happy to give you information on how to locate these labs.

If you fall into the 30% of non-secretory patients who do not produce free light chains that can be picked up by a Freelite test, your myeloma may be assessed by full skeletal xrays as well as by whole body PET scan or by wide field MRI screening of the spine, thoracic area, lumbar region, and pelvis. The scanning is more sensitive and more specific than x-rays for detecting small bone lesions.

Although myeloma patients cannot, of course, do away with bone marrow biopsies altogether, the above tests make it possible to monitor non-secretory disease without relying upon a biopsy that can be painful and invasive. Because myeloma tends to "clump" in the bone marrow, a bone marrow biopsy is not always the most reliable way to monitor response to treatment.

Q: My grandmother died of multiple myeloma and now my dad has been diagnosed with this disease. Can you tell me if myeloma is hereditary?

A: There is only a weak family tendency to develop myeloma. Approximately 3-5% of patients with myeloma give a history of myeloma or a related blood/bone marrow condition within the extended family. Thus far, no specific gene has been linked to this myeloma tendency. Genetic research in families with more than one member who has developed myeloma can provide important clues about what causes myeloma. The IMF is conducting "Familial Myeloma" research as part of a new genetic research program called Bank on a Cure™ (BOAC™). In this project, families will be studied to correlate DNA results with medical history and thus identify genes linked to myeloma.

What can you do right now if there is a history of myeloma in your family? Become informed about myeloma and its symptoms. When family members visit their physician for their annual check-up, make sure they tell the doctor about your family medical history. Standard laboratory blood work will indicate an increase in protein, and the doctor will have a note in the medical chart so that any protein increase will be properly evaluated.

Anyone interested in further details should call the IMF at (800) 452-2873. To learn more about BOAC™ go to *www.myeloma.org*. Results of this project will be critical to the understanding of both why myeloma occurs and how best to treat the disease.

It is the IMF's goal to provide the most current, up-to-the "minute" information to our members. The Myeloma Minute, a free weekly e-mail newsletter, is a great way to stay abreast of the latest developments in the treatment, management, and prevention of myeloma. We encourage patients, caregivers, friends, family members, and physicians to sign up for the Myeloma Minute at *www.myeloma.org/myeloma/myeloma_minute.jsp*. If you wish to submit a Question of the Week, please write to us care of the Myeloma Minute or call (800) 452-CURE. □

News & Notes

Dr. Robert A. Kyle

IMF Honors Dr. Robert A. Kyle

The IMF is proud to present its first *Robert A. Kyle Lifetime Achievement Award* to Robert A. Kyle, M.D., Professor of Medicine and Laboratory Medicine, Mayo Clinic, in recognition for his outstanding life work, clinically and in research, in the field of myeloma. The award dinner will take place on August 2, 2003, in Rochester, MN.
If you would like to attend the dinner and/or participate in the evening by placing an ad in the Tribute Book being assembled in Dr. Kyle's honor, please contact Suzanne Battaglia of the IMF at (800) 452-2873 or *SBattaglia@myeloma.org*.

In subsequent years, the award will honor other professionals for their work in the field of multiple myeloma.

IMF congratulates Dr. Brian Durie

The IMF congratulates Brian G.M. Durie, M.D., on his appointment as Co-Chair of the Southwest Oncology Group (SWOG) Myeloma Committee. Dr. Durie is pleased to join IMF Scientific Advisor Dr. Bart Barlogie as his fellow Co-Chair. SWOG is one of the largest of the National Cancer Institute-supported cancer clinical trials cooperative groups in the United States. Their primary mission is clinical research in the prevention and cure of cancer in adults. For more information about SWOG, please visit their website at *www.swog.org*.

Locks of Love

For the past year, Rebecca Soffer and Gabriela Seidler have been willing their hair to grow longer faster. They've been pulling it straight and measuring it, waiting for it to grow long enough to be able to cut off 10+ inches to donate to Locks of Love. They've been thinking of the children who have lost their hair because of cancer and other medical conditions who will soon wear a wig made from the donated locks. In celebration of change and hope, they hosted a party to debut their new looks. Over 100 friends and family joined them and helped raise over $2,000 to donate to cancer-focused non-profits. It was important for Gabby and Rebecca to donate to two organizations close to their hearts: the International Myeloma Foundation was a source of information when Gabby's mom was diagnosed with multiple myeloma, and Rebecca has been working with The Wellness Community for several years. At the party, Rebecca and Gabby were able to educate the guests about the work of the two non-profits and the need for funding to benefit the research and support services they currently provide.

Music For All Ages

Baritone Domenic Guastaferro, who lost his wife to multiple myeloma in 2001, will give a vocal recital to benefit efforts to find a cure. The program, entitled “From Handel to Hawkins” will take place at 1:00pm on June 8, 2003, at St. Philip & James Church in Bronx, NY. Dr. Guastaferro is a student of Jerome Hines, the former Metropolitan Opera bass soloist. Suggested donation is $10 or more. All proceeds benefit the IMF. There are no reserved seats. Limited seating will be on a first come basis. For more information, please contact Domenic Guastaferro at (914) 576-4570.

Join the IMF Long Distance Plan

GTC Telecom is reaching out on behalf of the IMF with a wonderful new way for you to help fight myeloma while saving yourself money at the same time! By signing up for the new IMF Long Distance Plan, 10% of what you spend on your long distance calls every month will be directly donated to the IMF. This fantastic long distance plan offers you savings of up to 40% or more. Please visit *www.gtctelecom.com/imf/* or call the GTC Telecom Support Center at (800) 486-4030 for more information. Each time you make a long distance call, you'll be supporting important and innovative programs like Bank On A Cure , the International Prognostic Index, and outreach programs like the IMF toll-free hotline. Sign up today and bring us one call closer to a cure!

Gabby Seidler and Rebecca Soffer

FUNdraising Made Easy

The IMF's new FUNdraising program is designed to assist our members with their fundraising activities. Deciding on a specific activity to help the myeloma community can be confusing. The IMF can help you by providing the tools, assistance, and expertise you need to make your FUNdraiser a success. We have 12 years of experience helping members around the world raise money for myeloma research and education. FUNdraising is fun (get it?) and easy to do, and you'll have the satisfaction of knowing that you made a difference. No idea is too large or too small. For more information, please contact Suzanne Battaglia of the IMF at (800) 452-2873 or *SBattaglia@myeloma.org*. She will answer your questions and offer suggestions about what you can do to participate.

Considering a Stem Cell Transplant?

Mapping the Maze - A Personal Financial Guide to Blood Stem Cell Transplants is a new publication of the National Marrow Donor Program. The booklet is designed to help transplant patients understand

Please see back cover

2003 IMF ANNIVERSARY GALA

The 2003 IMF *Ribbon of Hope-Making a World of Difference* Anniversary Gala is being held in Seattle, WA, at Paul Allen's Experience Music Project (EMP) Museum, on Saturday, October 4, 2003. The evening promises to be the best ever! The EMP is Seattle's most unique architectural wonder. The Frank O. Gehry-designed building houses a new interactive museum that combines performance space, technology, and revolutionary architecture in a facility created to celebrate the heritage and anticipate the future of American popular music. Guests will enjoy great food and music, tour the museum, and take part in exciting live and silent auctions.

This year's *Quality of Life Award* is being presented to the Fred Hutchinson Cancer Research Center. This award is given to individuals or entities whose mission mirrors that of the IMF — to improve the quality of life of myeloma patients while working toward prevention and a cure. Former NCI Director Dr. Richard Klausner is our Guest of Honor for the event. The IMF's Ribbon of Hope Award will be presented to the MM Fighters, the Seattle myeloma support group, for their passionate commitment and dedication to providing hope, support, and knowledge to the local myeloma community. The IMF Courage Award will be presented posthumously to Seattle restauranteur John Schwartz.


Dr. Klausner

The IMF is delighted to welcome this year's Co-Dinner Chairs, Teresa and Glen Perez of Gig Harbor, WA. The Perez Family is a long-time supporter of the IMF. If you live in the Seattle area and would like to serve on the dinner/auction committee, please contact Teresa at (253) 858-7791. For more information about tickets, sponsorships, advertising in the Tribute Journal, or contributing items to our auctions, please contact Suzanne Battaglia at (800) 452-2873 or *SBattaglia@myeloma.org*. ☐

DEAR READER – *continued*

The next morning we went for a tour of the center. I have to say it's incredibly impressive, not only for its state-of-the-art facilities but also because of its immensely dedicated staff. This is a finely tuned team and we were impressed.

We were honored to have an esteemed faculty present. An important beginning to a full day was provided by Dr. Brian Durie (Cedars-Sinai Comprehensive Cancer Center, California), who commenced with a wonderful presentation of "What is Myeloma?" With over 80% of the participants attending this introductory session, we were off to a great start. The team from Little Rock, Dr. Bart Barlogie, Dr. John Shaughnessy, and Dr. Guido Tricot, did an excellent job of presenting their experience in treating myeloma with their "total therapy." Of note was Dr. Shaughnessy's talk on the research he's doing in gene array technology, giving us a very promising look at what the future holds. Dr. William Dalton (H. Lee Moffit Cancer Center, Florida) gave a talk on conventional therapy that was informative and up-to-date. Dr. Greg Mundy (University of Texas Health Science Center), a frequent speaker at our seminars, spoke on bone disease, a field in which he is a renowned expert. Knowing what you can do to prevent bone disease is vital for both quality of life and better outcome.

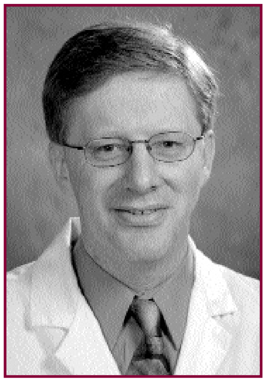

Dr. John Shaughnessy, Jr.

Since 1996, the IMF has been awarding the Francesca Thompson Outstanding Service Award to individuals who "go above and beyond the call of duty." It is named in memory of Francesca Thompson, who was a myeloma patient, physician, and founding Board member of the IMF. Dr. Thompson selflessly did so much to help the IMF help others, and it's in her honor that the IMF recognizes others who, like her, reach out and make a difference. Over the years we've recognized patients and family members. It was our honor and privilege for the first time to recognize a doctor for his outstanding work in helping myeloma patients. We were thrilled to present Dr. Bart Barlogie with the Francesca Thompson Award. On hand for the presentation was I. Dodd Wilson, Chancellor, University of Arkansas for Medical Sciences.


I. Dodd Wilson, Bart Barlogie and Susie Novis


Dr. William Dalton, Dr. Gregory Mundy, and Dr. Brian Durie

The Patient & Family Seminar was a huge success and I would like to extend a very heartfelt thank you to Bonnie Jenkins (Director of Program Coordination) and Janet Aronson (Administrator) for all their hard work in making the meeting a success and our trip to Little Rock a truly memorable experience.


Dr. Guido Tricot

Don't miss the next
IMF PATIENT & FAMILY INTERACTIVE SEMINAR
August 15-16, 2003
Atlanta, GA

DR. ADAMS – *continued*

the tumours, while prolonging survival with better quality of life. The practical immediate goal is to manage the disease so that patients may attain longer-term survival. And yes in the long term, I am an eternal optimist and will strive, with Millennium's support, to dare to cure myeloma and other diseases. ☐

Note: This is an update of an interview which appeared in the Autumn 2002 issue of *Myeloma Today UK*.

MYELOMA UPDATE – *continued*

of these factors, as well as absence of chromosome 13 deletion by cytogeneic analysis and/or absence of complex chromosome abnormalities.

BANK ON A CURE™

Bank On A Cure™, a project to establish a comprehensive DNA Bank for patients with multiple myeloma, is Co-Chaired by IMF Scientific Advisors Dr. Gareth Morgan (Leeds General Hospital, Leeds, UK) and Dr. Brian Van Ness (University of Minnesota, USA). Bank On A Cure's initial goal is to collect DNA samples and patient information from 10,000 myeloma patients. The DNA will be collected, stored, and analyzed at the University of Minnesota in the US and the University of Leeds in the UK. The DNA will be tested to determine the presence or absence of gene variants which determine:

- sensitivity to specific myeloma treatments
- susceptibility to side effects
- causal factors and/or predisposition to myeloma

The details of patient myeloma type and staging, response to treatment, side effects of treatment, and overall outcome will be gathered using a web-based computer system. The primary analysis will compare gene variants and outcome. Based upon initial patterns of correlations between gene variants and myeloma treatment outcome, side effects and susceptibility, "gene-directed" clinical trials will be developed. Clinical trials directed by myeloma DNA bank findings will be unique protocols to evaluate targeted therapies.

Why Establish Bank On A Cure?

- The IMF is in a special position to interface between its 50,000+ myeloma patient members and the researchers focused on new molecular approaches to myeloma diagnosis and treatment.
- The DNA bank allows myeloma research to move to the genetic level.
- Treatment can be selected based upon the unique genetic patterns of individual myeloma patients.
- Treatment side effects can be predicted. Specific drugs can be selected and drug dosages adjusted accordingly, thus optimizing effectiveness while minimizing toxic side effects.
- By identifying the genetic pattern of myeloma patients, strategies for early intervention and prevention can be developed.
- As new genetic information becomes available, Bank On A Cure will be an invaluable resource in interfacing with the pharmaceutical industry in the development of new drugs targeting specific patterns of gene variants.
- Bank On A Cure will serve as a model for other cancers, as well as a broad spectrum of other diseases. ☐

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News & Notes – *continued*

insurance issues, assess their financial needs for transplant, and develop a financial plan. If you would like to receive a copy of this free publication, please call (888) 999-6743.

Group Leaders Need Support, too!

The IMF understands that myeloma support group leaders need support, too! That's why we're pleased to announce the 4th annual IMF Support Group Leader Retreat. This exciting program is designed to bring together support group leaders from across the country and around the world. Exchanging ideas and information, sharing success stories, learning new skills, and making new friends benefits not only the participants of the retreat but also the myeloma communities they serve. The retreat will take place June 27th-29th at Duke University in Raleigh, NC. Sample topics and presentations include:

- **Financial Health Matters**
- **Mind, Body & Complimentary Approaches to Treatment**
- **Stress Reduction**
- **Caregivers Support**
- **Communicating with Group Members**

Whether your group is large or small, well-established or just starting out, meets formally or informally, the IMF Support Group Leader Retreat is sure to provide valuable information and is a great networking opportunity. The Support Group Leader Retreat is open to group leaders and co-leaders. Hotel accommodations (on-site at Duke University) for Friday and Saturday will be provided by the IMF. Attendees are responsible for transportation to and from Raleigh, NC. For more information, please call the IMF at (800) 452-2873.

Oral Health, Cancer Care, and You

Oral complications occur in almost all patients receiving radiation for head and neck malignancies, in up to 75% of blood and marrow transplant recipients, and in nearly 40% of patients receiving chemotherapy. The National Institute of Dental and Craniofacial Research (NIDCR), one of the National Institutes of Health, directs the health awareness campaign, *Oral Health, Cancer Care, and You: Fitting the Pieces Together*. The campaign addresses the fact that preventing and managing oral complications helps support optimal cancer therapy, enhancing both patient survival and quality of life. To order educational publications for patients, email *nohic@nidcr.nih.gov*, visit *www.nohic.nidcr.nih.gov/campaign/index.html*, or call (310) 402-7364.

National Cancer Survivors Day

The 16th annual celebration of National Cancer Survivors Day® will take place on Sunday, June 1, 2003. Plan now to celebrate in your community and show your support for cancer survivors and their families. America currently has 8.9 million people who are surviving a cancer diagnosis. NCSD is the world's largest cancer survivor event. You will be part of a nationwide celebration of life involving over 700 communities and thousands of people all across North America. NCSD is also a time to acknowledge those professionals dedicated to cancer treatment, research, and support services. For the location of specific events, email *ncsd@aol.com* or call (615) 794-3006.

Non-Prescription Therapies

Much is still unknown about many over-the-counter (OTC) preparations people use to self-medicate. Such non-prescription therapies should only be utilized with professional guidance and ongoing monitoring. Please check the IMF website at *www.myeloma.org* for useful links to websites offering additional information. ☐

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