

MDS News Highlights

FROM THE GUEST EDITOR'S DESK

The Emerging Impact of Flow Cytometry in Myelodysplastic Syndromes
 Presented by Arjan A. van de Loosdrecht, MD, PhD
 and Theresia M. Westers, PhD





FEATURING NEW IPHONE APP FOR IPSS-R: TECH IT OUT!





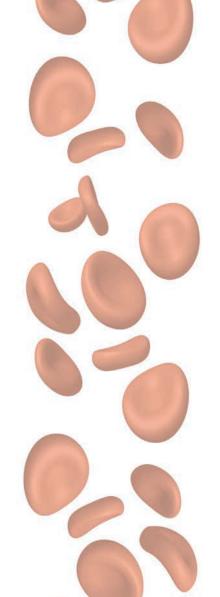
12TH INTERNATIONAL MDS SYMPOSIUM

May 8-11, 2013 • Berlin, Germany

■ PLAN TO ATTEND!

NEW FEATURE FOR MDS PATIENTS – CONNECT ON OUR PATIENT FORUM AND ZERO IN WITH AN MDS FOUNDATION EXPERT!

| TABLE OF CONTENTS | | | |
|------------------------------------|----|---|----|
| FROM THE GUEST EDITOR'S DESK | 2 | Patient Initiatives | |
| REVISED INTERNATIONAL PROGNOSTIC | | Worldwide Patient Forums/Support Groups | 20 |
| SCORING SYSTEM FOR MDS | 5 | Patient Contributions | 22 |
| About The Foundation | 6 | Nursing in MDS | 31 |
| Meeting Highlights/Announcements | | _ | |
| ASH 2012: MDS Foundation Symposium | 7 | MDS Centers of Excellence | 32 |
| 12TH INTERNATIONAL MDS SYMPOSIUM | 8 | Information on Clinical Trials | 35 |
| Rare Disease Day | 14 | Contributions to the Foundation | |
| MDS Resources: | | Thank You | 37 |
| Literature Highlights | 16 | In Memoriam | 39 |
| Building Blocks of Hope | 18 | Living Endowments | 47 |
| Fundraising for MDS Foundation | 19 | MDS Foundation Board of Directors | 48 |
| | | | |



From the Guest Editor's Desk

The Emerging Impact of Flow Cytometry in Myelodysplastic Syndromes





Arjan A. Van de Loosdrecht, MD, PhD Theresia M. Westers, PhD

Department of Hematology Cancer Center Amsterdam VU University Medical Center Amsterdam, The Netherlands

Although cytomorphology is the mainstay in the diagnosis of myelodysplastic syndromes (MDS) it may be ambiguous, especially in cases with low blast counts and mild dysplastic features. In particular, in cytopenic patients with normal or inconclusive morphology and normal cytogenetics, additional diagnostic markers are necessary. Flow cytometry (FC) can play a key role. Flow cytometry has been introduced as an important co-criterion in the diagnosis of MDS. Moreover, it has been recommended recently as a tool in the diagnostic work-up of MDS if performed according to the guidelines as defined by the European LeukemiaNet (ELNet) Working Party on "Standardization of FC in MDS". 1-4 ELNet reports describe recommendations on implementation of FC (i.e. technical issues as sample preparation, instrument set-up and quality assessment, acquisition of data and gating strategy); the ELNet working group also proposes minimal criteria for the diagnosis and prognostic evaluation of MDS and other cytopenias.^{2,3}

Analysis of bone marrow cells by FC can identify specific aberrations in both immature and maturing compartments among different hematopoietic lineages.

Since, MDS comprises a heterogeneous group of myeloid neoplasms, it is unlikely that a single specific marker can discriminate MDS from other cytopenias. Hence, the presence of multiple aberrancies has a higher predictive value for MDS than single aberrancies.⁵⁻⁸ In line with this, current WHO2008 recommendations recognize the presence of three or more FC aberrancies as indicative of MDS.⁹

As demonstrated in a multicenter study on behalf of the ELNet, application of only four parameters enables to distinguish low-risk MDS without other specific markers (i.e. cytogenetics or ring sideroblasts) from non-clonal cytopenias. 10 The key parameters within this score are: i) an increase in CD34+ progenitor cells within bone marrow nucleated cells (≥2%); ii) a decreased percentage of progenitor B cells within the CD34+ compartment (≤5%); iii) a decrease or increase of CD45 expression level on myeloid progenitor cells as compared to lymphocytes as a reference (≤ 4 or ≥ 7.5) and iv) a decrease in SSC of neutrophils as compared to lymphocytes (≤6). The presence of two or more of these specific aberrancies identified 70% of low-risk MDS cases with a specificity of 93%.¹⁰ Assessment of FC aberrancies of myeloid progenitor cells and the maturing myelomonocytic compartment can add valuable information.5-11 Furthermore, FC analysis of erythroid dysplasia might provide supplementary information, particularly within low-risk MDS. 12-14 Few applications are available for FC analysis of the megakaryocytic lineage but no standardized approach is yet available.15 The next paragraphs summarize current recommendations for FC analysis in MDS. Of note, evaluation of dysplasia by FC necessitates knowledge of expression levels in appropriate normal and pathological bone marrow controls.

Evaluation of Dysplasia in the Immature Myeloid Progenitor Compartment

The immature cell compartment is very heterogeneous. Therefore, beyond the classic CD45^{dim}/SSC^{low/int} profile, antibody combinations such as CD45/CD34/CD117/ HLA-DR and CD45/CD34/CD123/HLA-DR are instrumental to identify myeloid progenitor cells (CD45^{dim} and SSC^{low/int}) among other populations that show overlapping CD45 and SSC features (e.g. B cell precursors, plasma cells, monoblasts, basophils, erythroblasts and plasmacytoid dendritic cell precursors).2 Observed aberrancies in the immature myeloid compartment in MDS are an abnormal intensity or lack of expression of CD45, CD34, CD117, HLA-DR, CD13, CD33, asynchronous presence of CD11b, and/or the expression of lineage infidelity markers such as CD5, CD7 or CD56,5,7,11,12,16-19

Evaluation of Dysplasia in the Neutrophil Compartment

Maturing neutrophils are identified by their CD45intSSCint-bright profile. Other markers such as CD33, CD64, HLA-DR and CD11b are useful in distinguishing monocytes and hypogranular neutrophils. Neutrophils display diminished CD33 and CD64 expression, heterogeneous to bright CD11b and mostly lack HLA-DR as compared to CD33bright, HLA-DR+ and CD11b+ monocytes. One of the most frequently reported FC aberrancies in the maturing neutrophil compartment is an abnormally decreased SSC reflecting hypogranularity (example in **Figure 1**).² Next to decreased SSC, dysplastic neutrophils can display aberrant expression levels of certain antigens or an aberrant relationship among two or more antigens, e.g. aberrant relationships between CD13 and CD11b and/or CD13 and CD16 and between CD15 and CD10 (Figure 1).^{2,3}

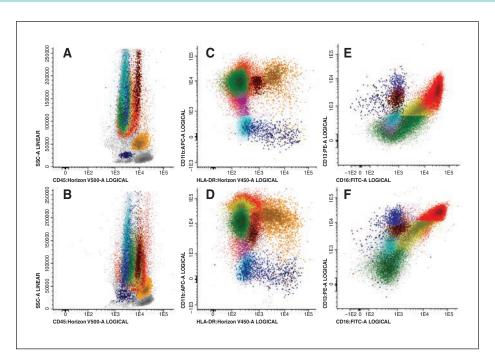


Figure 1. Immunophenotypic patterns in the myelomonocytic compartment of an MDS bone marrow sample as compared to a normal control

Multicolor density plots of a normal bone marrow sample and a case of MDS are illustrated in the upper row and lower row, respectively. Panel A and B depict CD45 (X-axis) vs. sideward light scatter (SSC; Y-axis) plots. Cell populations displayed are myeloid progenitor cells (CD45dim/SSClow to intermediate, dark blue), monocytes (CD45int/SSCint, orange) and neutrophils (CD45 dim/SSC int to high in multiple colors). Granularity (presented as sideward light scatter: SSC) of MDS neutrophils in panel B is aberrantly decreased as compared to that of the neutrophils in a normal control (panel A), indicating hypogranularity; the latter also holds true for the eosinophils (in brown). In panel C and D maturation patterns of the myelomonocytic subpopulations are shown in HLA-DR (X-axis) vs. CD11b (Y-axis) plots. HLA-DR+CD11b- myeloid progenitor cells (dark blue) differentiate clockwise towards HLA-DR-CD11b+ neutrophils: differentiation towards HLA-DR+CD11b+ monocytes (in orange) occurs counterclockwise. The MDS case in panel D shows over expression of CD11b on more mature neutrophils (in red en pale green). In panel E and F maturation patterns of the selected neutrophil subpopulations are shown in CD16 (X-axis) vs. CD13 (Y-axis) plots. In panel E, the normal maturation from CD13+CD16- immature neutrophils (in blue), via a CD13dim interphase (in green) towards CD13+CD16+ mature neutrophils (in red) is displayed; eosinophils are depicted in brown. The MDS case in panel F shows abnormal concave instead of convex maturation profile (panel E)

Evaluation of Dysplasia in the Monocytic Compartment

Morphological assessment of dysmonopoiesis in MDS is difficult unless there is marked monocytosis. By FC, monocytes can be defined based on their CD45 expression (intermediate-bright), SSC (intermediate) and additional markers such as HLA-DR, CD11b, CD64, CD36, CD33 and CD14. The use of CD14 alone may underestimate the percen-

tage of monocytic cells particularly when immature forms are present. Aberrancies of interest in the monocytic lineage are an abnormal distribution of maturation stages, abnormal relationships of HLA-DR and CD11b, abnormal intensity of CD13 and overexpression of CD56. CD56 (and CD2) may even contribute to discriminate chronic myelomonocytic leukemia (CMML) from MDS/myeloproliferative neoplasms.²⁰⁻²¹

Evaluation of Dysplasia in the Erythroid Compartment

The erythroid population can be defined by its very dim to negative of CD45 expression and low FSC and SSC properties. Commonly applied markers are CD45, CD71, CD235a, CD36, CD117, and less frequently CD105. One of the most frequently observed aberrancies (80% of low-risk MDS) is an increased number of erythroid progenitors associated with a larger proportion of immature erythroid cells (CD117+ or CD105+). Furthermore, in approximately 70% of the patients, abnormal relationship of CD71 vs. CD235a and/or decreased expression of CD36 is observed.^{7,12-14,22}

Flow Cytometry and Prognosis of MDS

Thus far, the only validated prognostic FC score is the FC scoring system by Wells et al. 5,8,19,23 This flow score weighs the percentage of myeloid progenitor cells and their aberrancies and the amount of aberrancies in the maturing myelomonocytic compartment. In clinical practice, WHO classification. International Prognostic Scoring System (IPSS and IPSS-revised) and WHO-based Prognostic Scoring System (WPSS) are all well validated and applied routinely. 9,24-26 Interestingly, within the subgroups or risk groups of the WHO, IPSS (-revised) and WPSS flow scores are rather heterogeneous. This implies that FC can identify patients with worse prognosis within validated risk categories.

Application of Flow Cytometry in Predicting and Monitoring Treatment Response

Subgroups of in low and int-1 risk MDS with distinct clinical behaviour regarding transfusion dependency and progression can be identified by FC analysis of bone marrow cells.¹⁹ Moreover, in a clinical decision model the absence of aberrant myeloid progenitors as assessed by FC in combination with low endogenous erythropoietin levels is predictive for

response to growth factor treatment.²⁷ In addition, aberrant marker expression on myeloid progenitors cells identifies patients who may not benefit from treatment with hypomethylating agents such as azacitidine in intermediate-2 and high risk MDS.²⁸ There are few data indicating that patients in complete remission for AML after high dose chemotherapy but with FC dysplasia might have worse clinical outcome suggesting persistence of (previously) undefined MDS. Finally, specific flow signatures are being recognized within specific cytogenetic subgroups such as in MDS with isolated del(5g). These flow signatures might have impact in monitoring MDS during treatment with lenalidomide.

Concluding Remarks

Flow cytometric analysis is recognized and even recommended as a tool for diagnosis of MDS when performed according to the ELNet guidelines.^{2,3} It is understood that currently these methods are not universally accepted outside of Europe because of the some technical issues raised. Thus, some institutions and guideline committees recommend further evaluation before acceptance of these flow cytometric methods for the diagnosis of MDS. Noteworthy, FC in MDS should only be applied as part of an integrated diagnostic approach. Results from FC analysis can add to better prognostification. Current investigations focus on the role of FC in monitoring the course of the disease in untreated (low risk) MDS patients and in the selection of patients who might benefit from emerging new drugs in low and high risk MDS.

Acknowledgements

We would like to thank all participants of the ELNet and Dutch MDS FC working groups for providing input in the development of the ELNet guidelines for the assessments of FC in MDS.

References

- Valent P, Horny HP, Bennett JM, Fonatsch C, Germing U, Greenberg P, et al. Definitions and standards in the diagnosis and treatment of the myelodysplastic syndromes: Consensus statements and report from a working conference. *Leuk Res.* 2007 Jun;31(6): 727–36.
- van de Loosdrecht AA, Alhan C, Bene MC, Della Porta MG, Drager AM, Feuillard J, et al. Standardization of flow cytometry in myelodysplastic syndromes: report from the first European LeukemiaNet working conference on flow cytometry in myelodysplastic syndromes. *Haematologica*. 2009 Aug;94(8):1124–34.
- 3. Westers TM, Ireland R, Kern W, Alhan C, Balleisen JS, Bettelheim P, et al. Standardization of flow cytometry in myelodysplastic syndromes: a report from an international consortium and the European LeukemiaNet Working Group. *Leukemia*. 2012 Jul;26(7): 1730–41.
- 4. Malcovati L, Malcovati, L, Bowen D, Cermak J, et al. Diagnosis and treatment of primary myelodysplastic syndromes in adults. Recommendations from the European Leukemia Net. Submitted for publication.
- Wells DA, Benesch M, Loken MR, Vallejo C, Myerson D, Leisenring WM, et al. Myeloid and monocytic dyspoiesis as determined by flow cytometric scoring in myelodysplastic syndrome correlates with the IPSS and with outcome after hematopoietic stem cell transplantation. *Blood*. 2003 Jul 1;102(1):394–403.
- 6. Arroyo JL, Fernandez ME, Hernandez JM, Orfao A, San Miguel JF, Del Canizo MC. Impact of immunophenotype on prognosis of patients with myelodysplastic syndromes. Its value in patients without karyotypic abnormalities. *Hematol J.* 2004;5(3):227–33.
- 7. Malcovati L, Della Porta MG, Lunghi M, Pascutto C, Vanelli L, Travaglino E, et al. Flow cytometry evaluation of erythroid and myeloid dysplasia in patients with myelodysplastic syndrome. *Leukemia*. 2005 May;19(5): 776–83.
- 8. Scott BL, Wells DA, Loken MR, Myerson D, Leisenring WM, Deeg HJ. Validation of a flow cytometric scoring system as a prognostic indicator for posttransplantation outcome in patients with myelodysplastic syndrome. *Blood.* 2008 Oct 1;112(7):2681–6.
- 9. Brunning R, Orazi A, Germing U, LeBeau MM, Porwit A, Baumann I, et al. Myelodysplastic syndromes/neoplasms. In: Swerdlow et al., editor. WHO classification of Tumours and Haematopoietic and Lymphoid Tissues. Lyon: IARC;2008.

- Della Porta MG, Picone C, Pascutto C, Malcovati L, Tamura H, Handa H, et al. Multicenter validation of a reproducible flow cytometric score for the diagnosis of lowgrade myelodysplastic syndromes: results of a European LeukemiaNET study. *Haematologica*. 2012 Aug;97(8):1209–17.
- 11. Tang G, Jorgensen JL, Zhou Y, Hu Y, Kersh M, Garcia-Manero G, et al. Multi-color CD34(+) progenitor-focused flow cytometric assay in evaluation of myelodysplastic syndromes in patients with post cancer therapy cytopenia. *Leuk Res.* 2012 Aug;36(8):974–81.
- 12. Stetler-Stevenson M, Arthur DC, Jabbour N, Xie XY, Molldrem J, Barrett AJ, et al. Diagnostic utility of flow cytometric immunophenotyping in myelodysplastic syndrome. *Blood.* 2001 Aug 15;98(4):979–87.
- 13. Della Porta MG, Malcovati L, Invernizzi R, Travaglino E, Pascutto C, Maffioli M, et al. Flow cytometry evaluation of erythroid dysplasia in patients with myelodysplastic syndrome. *Leukemia*. 2006 Apr;20(4):549–55.
- 14. Matarraz S, Lopez A, Barrena S, Fernandez C, Jensen E, Flores-Montero J, et al. Bone marrow cells from myelodysplastic syndromes show altered immunophenotypic profiles that may contribute to the diagnosis and prognostic stratification of the disease: a pilot study on a series of 56 patients. Cytometry B Clin Cytom. 2010 May;78(3):154–68.
- 15. Sandes AF, Yamamoto M, Matarraz S, Chauffaille ML, Quijano S, Lopez A, et al. Altered immunophenotypic features of peripheral blood platelets in myelodysplastic syndromes. *Haematologica*. 2012 Jun;97(6): 895–902.
- 16. Ogata K, Nakamura K, Yokose N, Tamura H, Tachibana M, Taniguchi O, et al. Clinical significance of phenotypic features of blasts in patients with myelodysplastic syndrome. *Blood*. 2002 Dec 1;100(12):3887–96.
- 17. Stachurski D, Smith BR, Pozdnyakova O, Andersen M, Xiao Z, Raza A, et al. Flow cytometric analysis of myelomonocytic cells by a pattern recognition approach is sensitive and specific in diagnosing myelodysplastic syndrome and related marrow diseases: emphasis on a global evaluation and recognition of diagnostic pitfalls. *Leuk Res.* 2008 Feb;32(2):215–24.
- 18. Matarraz S, Lopez A, Barrena S, Fernandez C, Jensen E, Flores J, et al. The immunophenotype of different immature, myeloid and B-cell lineage-committed CD34⁺ hematopoietic cells allows discrimination between normal/reactive and myelodysplastic syndrome precursors. *Leukemia*. 2008 Jun;22(6):1175–83.

- 19. van de Loosdrecht AA, Westers TM, Westra AH, Drager AM, van der Velden VHJ, Ossenkoppele GJ. Identification of distinct prognostic subgroups in low- and intermediate-1-risk myelodysplastic syndromes by flow cytometry. *Blood*. 2008 Feb 1;111(3):1067–77.
- Xu Y, McKenna RW, Karandikar NJ, Pildain AJ, Kroft SH. Flow cytometric analysis of monocytes as a tool for distinguishing chronic myelomonocytic leukemia from reactive monocytosis. *Am J Clin Pathol*. 2005 Nov; 124(5):799–806.
- 21. Lacronique-Gazaille C, Chaury MP, Le GA, Faucher JL, Bordessoule D, Feuillard J. A simple method for detection of major phenotypic abnormalities in myelodysplastic syndromes: expression of CD56 in CMML. *Haematologica*. 2007 Jun;92(6):859–60.
- 22. Lorand-Metze I, Ribeiro E, Lima CS, Batista LS, Metze K. Detection of hematopoietic maturation abnormalities by flow cytometry in myelodysplastic syndromes and its utility for the differential diagnosis with non-clonal disorders. *Leuk Res.* 2007 Feb:31(2):147–55.
- 23. Chu SC, Wang TF, Li CC, Kao RH, Li DK, Su YC, et al. Flow cytometric scoring system as a diagnostic and prognostic tool in myelodysplastic syndromes. *Leuk Res.* 2011 Jul;35(7): 868–73.
- 24. Greenberg P, Cox C, LeBeau MM, Fenaux P, Morel P, Sanz G, et al. International scoring system for evaluating prognosis in myelodysplastic syndromes. *Blood.* 1997 Mar 15; 89(6):2079–88.
- Greenberg PL, Tuechler H, Schanz J, Sanz G, Garcia-Manero G, Sole F, et al. Revised international prognostic scoring system for myelodysplastic syndromes. *Blood.* 2012 Sep; 20;120(12):2454–65.
- 26. Malcovati L, Germing U, Kuendgen A, Della Porta MG, Pascutto C, Invernizzi R, et al. Timedependent prognostic scoring system for predicting survival and leukemic evolution in myelodysplastic syndromes. *J Clin Oncol*. 2007 Aug 10;25(23):3503–10.
- 27. Westers TM, Alhan C, Chamuleau MED, van der Vorst MJDL, Eeltink C, Ossenkoppele GJ, et al. Aberrant immunophenotype of blasts in myelodysplastic syndromes is a clinically relevant biomarker in predicting response to growth factor treatment. *Blood*. 2010 Mar 4; 115(9):1779–84.
- 28. Alhan C, Westers TM, van der Helm LH, Eeltink C, Santini V, Ossenkoppele GJ, et al. Absence of Aberrant Myeloid Progenitors by Flow Cytometry Is Associated with Favorable Response to Azacitidine in Int-2 and High Risk Myelodysplastic Syndromes. 2013. Submitted for publication.

INTERNATIONAL PROGNOSTIC SCORING

Revised International Prognostic Scoring System for MDS



The manuscript describing the Revised IPSS (IPSS-R) for MDS is available now in the September 23, 2012 issue of *Blood* (vol.120, p2454). Under the aegis of the MDS Foundation, the International Working Group for Prognosis in MDS (IWG-PM) analyzed clinical features and outcome data from over 7000 patients and generated an improved method analyzing MDS patient prognosis more precisely than the initial IPSS.

Novel components of this prognostic system include: five rather than three cytogenetic prognostic subgroups with specific and new classifications of a number of less common cytogenetic subsets, splitting the low marrow blast percentage value, and assessing depth of cytopenias. In addition to the major prognostic variables of marrow blasts, cytogenetics and peripheral cytopenias, additive features for survival include patient age, performance status, serum ferritin and LDH.

The IPSS-R calculator tool is accessible through the following URLs: http://www.ipss-r.com or http://mds-foundation.org/calculator/index.php. An iPhone App for the IPSS-R calculator tool is also accessible through the Apple store (enter MDS IPSS-R).

This IPSS-R should prove beneficial for predicting the clinical outcomes of untreated MDS patients and aiding design and analysis of clinical trials in this disease. Copies of this manuscript are available upon request from the MDS

Foundation and can also be accessed online at: http://www.mds-foundation.org/revisedprognostic-system-for-mds/.

Tech it Out!

Revised International Prognostic
Scoring System (IPSS-R) for
Myelodysplastic Syndromes
Risk Assessment Calculator

ING-PM
INTERNATIONAL WORKING GROUP
FOR THE PROGNOSIS OF MDS

Tap screen to enter calculator

© 2012 MDS Foundation. All rights reserved.

Variables (units) [usual range] Hemoglobin (g/dL) [4-20] A Possible conversion for Hb values: 10 g/dL=6.2 mmol/L, 8g/dL=5.0 mmol/L Absolute Neutrophil Count (x10°/L) [0-15] Platelets (x10°/L) [0-2000] Bone Marrow Blasts (percent) [0-30] Cytogenetic Category Select Category Values Results Tables Links

About the Foundation

Who Are We?____

The MDS Foundation, Inc. is an international organization established in 1994 by world renowned researchers dedicated to further scientific knowledge, patient support, and education in the myelodysplastic syndromes (MDS). The Foundation is based on the premise that international cooperation will accelerate the process leading to the control and cure of MDS.

What is MDS?_____

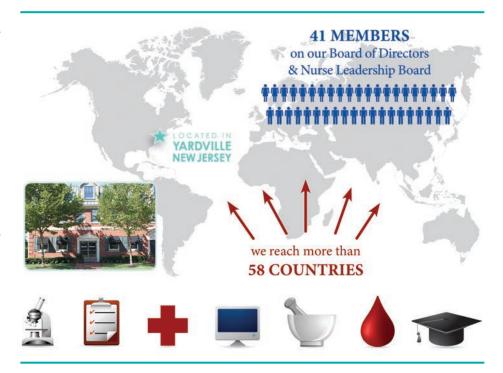
The myelodysplastic syndromes are a group of bone marrow disorders resulting in the ineffective production of normal mature blood cells. Many patients experience anemia from the lack of effective red blood cells, thereby requiring frequent blood transfusions. A shortage of white blood cells may cause malfunctioning of the immune system resulting in infections. Insufficient platelets can result in excessive bleeding. In about one-third of MDS patients, the disease transforms into acute myelogenous leukemia (also known as AML).

What We Do_____

The MDS Foundation provides research grants for scientific investigators, sponsors international working groups of scientists and physicians to further diagnostic, prognostic and treatment techniques, and disseminates information on state-of-the-art research, clinical trials and treatments among the professional and patient communities. The Foundation also refers patients to its collection of "MDS Centers of Excellence," maintains an electronic forum on its website for interaction and support among patients, and provides educational programs for both health care professionals and patients and their families.

Where We Are

The Foundation is located in Yardville, New Jersey and is active in more than 58 countries around the world. Our Board of



Directors consists, for the most part, of physicians and nurses actively engaged in searching for a cure of the disease. Our Nurse Leadership Board is comprised of specialized nurses sharing information and teaching others how to care for MDS patients. Together, the Board of Directors and the Nurse Leadership Board consist of 41 members representing 14 countries. Please see our website www.mdsfoundation.org for a complete list of our board members and other vital information about the disease and the Foundation.

Our Fundraising Efforts

As a tax exempt non-profit, section 501(c)3 organization, donations to the MDS Foundation qualify for a U.S. tax deduction (it is essential to consult with your tax advisor to confirm your own tax situation).

The MDS Foundation actively seeks financial support for our mission and programs to continue providing services such as the following:

- International Working Group for Prognosis in MDS (IWG-PM)
- Young Investigator Research Grants

- Hot-line for patients and caregivers to speak with our Patient Liaison at 800-MDS-0839
- Numerous Face to Face Patient Forums in multiple cities with presentations by local physicians
- Online Patient Forum monitored by experts
- Designation of Centers of Excellence (COE) meeting the highest standards for diagnosis, treatment, and patient care
- Patient Referrals to COEs
- Building Blocks of Hope® handbook (in print or online) with complete written and video information on the care and treatment of MDS
- The MDS News Email Alerts
- Biennial International MDS Symposia for professionals & continuing medical and nursing education programs

Donations can be made on our website by credit card (through PayPal), or by check made payable and addressed to: The MDS Foundation, Inc. 4573 South Broad St., Suite 150 Yardville, New Jersey 08620

Meeting Highlights and Announcements

THE AMERICAN SOCIETY OF HEMATOLOGY 53RD ANNUAL MEETING & EXPOSITION • DECEMBER 2012

On behalf of the MDS Foundation and our Board of Directors, thank you for joining us for our recent Satellite Symposium:

Myelodysplastic Syndromes: Current Understanding & Management Approaches

Georgia World Congress Center Atlanta, Georgia

The MDS Foundation held its 14th consecutive satellite symposium on Friday preceding the American Society of Hematology's annual meeting. The room was filled to capacity with an audience of more than 800 hematologists from around the world. We wish to thank our internationally renowned faculty — Drs. Neal S. Young, Timothy Graubert, Theo de Witte, Alan F. List and Mary M. Horowitz for presenting the most up-to-date information on effective management of MDS as well as current standard and recent novel therapeutic advances for MDS patients.

Highlights from 54th ASH Annual Meeting and Exposition



Members of our Nurse Leadership Board, Erin Demakos and Sandy Kurtin, always willing to lend a hand at the MDSF Exhibit Booth



Nurse Sandy Kurtin, Susan Hogan, Bergit Kuhle and Audrey Hassan (left to right)

Download our ASH Presentations online at http://www.mds-foundation.org/ash-2012-presentations/

- Hematopoietic Stem Cell Transplantation (HCT) for MDS
- Impact of Co-Morbidities and Treatment on newly diagnosed lower risk MDS patients from the EU MDS Registry
- Somatic Mutations in MDS: Insight into their Prognostic and Biological Importance
- Biomarker Directed Treatment Approaches for MDS
- Current Management Approaches for Myelodysplastic Syndromes (MDS) Bone Marrow Failure in MDS: Role of Abnormal Telomere Dynamics



Health professionals learning more about MDS at the ASH conference



Crowd of 800+ hematologists participated in our sponsored satellite symposium

THE 12TH INTERNATIONAL SYMPOSIUM ON MYELODYSPLASTIC SYNDROMES

MDS 2013 will unite all professionals devoted to improving the quality of life of patients with Myelodysplastic Syndromes. Join the leading researchers, clinicians and educators in the field of haematology for a diverse scientific programme that ranges from basic workshops to the most cutting edge discoveries in MDS.





View the scientific programme and register today at a discounted rate!



PRELIMINARY TIMETABLE

WEDNESDAY, MAY 8, 2013

| 14:00-17:00 | Basic Course Teresa Vallespi, Spain Ulrich Germing, Germany Masao Tomonaga, Japan Gina Zini, Italy | Advanced course Torsten Haferlach, Germany John Bennett, USA Marius MacKenzie, The Netherlands Jean Goasguen, France |
|-------------|--|--|
| | Richard Brunning, USA | |
| 17:00 | Opening Ceremony Chairs: Arnold Ganser, Germany; Stepl | nen Nimer, USA |
| 19:00 | Welcome Reception | |

THURSDAY, MAY 9, 2013

| IHOKOD | AY, MAY 9, 2013 | | |
|-------------|--|--|--|
| 8:30-10:00 | Plenary I: PathogenOMEs in MDS – new players and well known gamblers Chair: Wolf-Karsten Hofmann, Germany The Genome. Timothy Graubert, USA The Spliceosome. Seishi Ogawa, Japan The Epigenome. Joop Jansen, The Netherlands Impact of alterations of OMEs for Classification: IWG-PM/Molecular. Benjamin Ebert, USA This session is supported by an Unrestricted Educational Grant from Celgene Corporation | | |
| 10:00-10:30 | Coffee Break | | |
| 10:30-11:30 | Plenary II: Diagnosis in 2013– state-of-the-art Chair: Eva Hellström-Lindberg, Sweden WHO 2013. Ulrich Germing, Germany Cytogenetic Advances. Detlef Haase, Germany IPSS-R(evised): Update. Peter Greenberg, USA | | |
| 11:30-12:30 | Interactive I: Challenging diagnostic cases – does molecular genetics lead the way? Chair: John Bennett, USA RA/RCMD – RAEB-II – AML. Aristoteles Giagounidis, Germany CMML: Clinical management. David Bowen, UK RARS-T: Molecular and clinical features of refractory anemia with ringed sideroblasts associated with marked thrombocytosis. Luca Malcovati, Italy | | |
| 12:30-13:30 | Lunch Meet the Experts | | |
| | Molecular Diagnostics. Ghulam Mufti, <i>UK</i> Scoring. Mario Cazzola , <i>Italy</i> Overlap MDS/MPN. Nick Cross , <i>UK</i> | | |
| 13:30-14:30 | Plenary III: What can MDS-specialists learn from Chair: Mario Cazzola, Italy Childhood MDS. Charlotte Niemeyer, Germany Novel genetic diseases associated with bone marrow failure. Christoph Klein, Germany Overlap of BMF and MDS. Jaroslaw Maciejewski, USA | | |
| 14:30-16:00 | Oral Session I – Pathogenesis Chair: Brigette Schlegelberger, Germany | | |
| 16:00-16:30 | Coffee Break | | |
| 16:30-18:00 | Poster Session (+ guided poster discussion) | | |
| | | | |

THE 12TH INTERNATIONAL SYMPOSIUM ON MYELODYSPLASTIC SYNDROMES

The 12th International Symposium on MYELODYSPLASTIC SYNDROMES





| CDID | AV | | 10 | 201 | |
|------|----|------|----|-----|--|
| FRID | | WIFI | | 40 | |

| 8:30-10:00 | Plenary IV: Treatment of low risk MDS patients – the standard, the new Chair: Jacob Passweg, Switzerland Immunosuppressive therapy. Neal Young, USA The riddle of iron chelation in MDS. Valeria Santini, Italy ESAs/TSAs – The higher the dose, the better the response? Sophie Park, France Lenalidomide as a standard treatment for low risk MDS with 5q abnormality? Alan List, USA This session is supported by an Unrestricted Educational Grant from Novartis Oncology | | |
|-------------|---|--|--|
| 10:00-10:30 | Coffee Break | | |
| 10:30-11:30 | Plenary V: Treatment of high risk MDS patients Chair: Pierre Fenaux, France Molecular targets – treatment options. Stephen Nimer, USA Hypomethylating agents for treatment of high risk MDS. Norbert Gattermann, Germany Combination regimens in high risk MDS. Steven Gore, USA This session is supported by an Unrestricted Educational Grant from Celgene Corporation | | |
| 11:30-12:30 | Interactive II (allo SCT) Chair: Theo DeWitte, The Netherlands Patients selection. Corey Cutler, USA Pre treatment. Guillermo Sanz, Spain Management of graft versus host disease. Hans-Joachim Deeg, USA | | |
| 12:30-13:30 | Lunch Meet the Experts Iron Chelation. Daniela Cilloni, Italy ESA. Martin Jädersten, Sweden Combination Treatment. Uwe Platzbecker, Germany | | |
| 13:30-14:30 | Best abstracts (Bastianello-Awards) Chair: Arnold Ganser, Germany; Stephen Nimer, USA | | |
| 14:30-16:00 | Oral Session II – Treatment and trials Chair: Lionel Ades, France | | |
| 16:00-16:30 | Coffee Break | | |
| 16:30-18:00 | Poster Session (+ guided poster discussion) | | |

SATURDAY, MAY 11, 2013

| 8:30-10:00 | Oral Session III - Prognostication and QoL Chair: Reinhard Stauder, Austria; Sandy Kurtin, USA |
|-------------|---|
| 10:00-10:30 | Coffee break |
| 10:30-12:00 | Plenary VI: Future perspectives and new drug development Chair: Steven Gore, USA Microenvironment. Sten Jacobsen, UK Next generation sequencing – diagnostic/prognostic key? Alexander Kohlmann, Germany Therapy related MDS. Richard Larson, USA Pipeline overview: Disease modifying drugs in MDS. Guillermo Garcia-Manero, USA |
| 12:00-12:30 | Closing Remarks |

| Plenary Session | Interactive Session | Poster Session |
|-----------------|---------------------|----------------|
| Social Event | Oral Session | Best Abstracts |

THE 12TH INTERNATIONAL SYMPOSIUM ON MYELODYSPLASTIC SYNDROMES



REGISTRATION

Discounted registration can be accessed online until April 29th. Please visit: www.kenes.com/mds

| | Early bird fee Until March 13th | Regular fee From March 13th until April 29th | Onsite fee From April 29th |
|------------------------------------|------------------------------------|---|-------------------------------|
| MDSF Member* | € 540.00 | € 600.00 | € 660.00 |
| Non-Member | € 600.00 | € 670.00 | € 720.00 |
| Nurse** | € 240.00 | € 290.00 | € 290.00 |
| Student*** | € 155.00 | € 190.00 | € 225.00 |
| Pre-Symposium Course in Morphology | | € 15.00 | |
| Meet the expert lunch session | | € 10.00 | |

Fees for all Meeting Participants include:

- · Participation in scientific sessions
- Entrance to the exhibition
- · Opening ceremony and welcome reception
- The printed material of the Symposium
- · A certificate of attendance
- Coffee and Lunch breaks as indicated in the programme

ACCOMMODATION

We have selected a variety of hotels across Berlin, being offered at a discounted rate to MDS participants. Detailed information about the official symposium hotel, room rates, cancellation policies and access to the online accommodation booking form, are available on the website: www.kenes.com/mds

PATIENT FORUM

Please join us on Saturday, May 11th in Berlin, Germany for our next MDS Patient & Family Forum. Guest speakers will include Prof. Dr. med. Aristoteles Giagounidis, Prof. Dr. med. Uwe Platzbecker and Angelika Bitter, RN. The forum will be offered in both English and German. For more information, visit: www.LHRM.de or contact buero@LHRM.de

CME ACCREDITATION

UEMS-EACCME

The 12th International Symposium on Myelodysplastic Syndromes (MDS 2013) has been accredited by the European Accreditation Council for Continuing Medical Education (EACCME) to provide the following CME activity for medical specialists.

The 12th International Symposium on Myelodysplastic Syndromes (MDS 2013) is designated for a maximum of, or up to, 18 (eighteen) European CME credits (ECMEC). Each medical specialist should claim only those hours of credit that he/she actually spent in the educational activity. The EACCME is an institution of the European Union of Medical Specialists (UEMS): www.uems.net

American Medical Association (AMA)

Through an agreement between the European Union of Medical Specialists and the American Medical Association, physicians may convert EACCME credits to an equivalent number of AMA PRA Category 1 Credits™. Information on the process to convert EACCME credit to AMA credit can be found at www.ama-assn.org/go/internationalcme.

Royal College of Physicians and Surgeons of Canada

Live educational activities, occurring outside of Canada, recognized by the UEMS-EACCME for ECMEC credits are deemed to be Accredited Group Learning Activities (Section 1) as defined by the Maintenance of Certification Program of The Royal College of Physicians and Surgeons of Canada. For more information, visit: www.royalcollege.ca.

Deutsche Ärztekammer Berlin

The 12th International Symposium on Myelodysplastic Syndromes (MDS 2013) is accredited by the Deutsche Ärztekammer Berlin. The following credits will be granted to participants: 3 CME points/ half a day.

The 12th International Symposium on MYELODYSPLASTIC SYNDROMES

May 8-11, 2013 | Berlin, Germany



Welcome to the 12th International Symposium on Myelodysplastic Syndromes

May 8 - 11, 2013 | Berlin, Germany

Our appreciation and gratitude to the MDS Foundation for raising awareness of the **ONTIME** Trial

ONTIME is a Phase III trial of rigosertib (ON 01910.Na) in MDS patients after DNA hypomethylating agents





SAVE THE DATE AND PLAN TO ATTEND!

MDS Symposium at 55th ASH Annual Meeting

The MDS Foundation invites you to New Orleans, LA, for its next Breakfast Symposium to be held at the 55th ASH Annual Meeting and Exposition.

FRIDAY, DECEMBER 6, 2013

7 am to 11 am Ernest N. Morial Convention Center New Orleans, LA





VISIT THE MDS FOUNDATION BOOTH: #2813

BRAND NEW & COMING SOON!

MEMA

Connect on our improved Patient Forum and zero in with an MDSF Expert.

Look for this new feature on our free online discussion board of information exchanged between patients, caregivers, and family members. Where else can you have MDSF

Experts at your fingertips addressing your unique concerns and personally have your questions answered?

Will be available on mobile devices.



DO SOMETHING BIG IN 2013!

Be a Bone Marrow Donor

For those patients diagnosed with a fatal blood disorder, bone marrow transplantation (BMT) is often the only chance of survival. Related donors provide suitable matches only 33 percent of the time. This leaves nearly 70 percent of patients without a match. The need is especially critical in racial and ethnic minority groups.

Registering as a donor is simple. A blood sample is all you need to enter your tissue type into the National Marrow Donor Program (NMDP) computerized registry. If you are in good health and between the ages of 18 and 55, you can contact NMDP at 1-800-MARROW-2. They will send additional information, including the NMDP center nearest you.



PROGRAM®



Be a Blood Donor

We'd like to encourage everyone to give blood! Bone marrow failure disorders like MDS require patients to receive regular blood transfusions. Contact your local blood bank today.

Give the Gift of Life!

RARE DISEASE DAY

The Myelodysplastic Syndromes (MDS) Foundation, Inc. Observes Rare Disease Day

February 28, 2013

The MDS Foundation, Inc. joined the National Organization for Rare Disorders (NORD) and others around the world in observance of *World Rare Disease Day* on February 28, 2013.

To raise MDS awareness at the state level and *Rare Disease Day* we went to the New Jersey State House with other patient groups on March 4, 2013. Our message was to ensure the needs of all rare disease patients are considered in future legislative policy and making sure "Every Patient Counts" is a NJ State imperative.

Senator Bucco's office created two Resolutions for us for *Rare Disease Day*. The first one honors all the Rare Disease Organizations in New Jersey. The 2nd Resolution states that the last day of February is acknowledged as *Rare Disease Day* in New Jersey.

MDS is a puzzling, life-threatening group of diseases of the bone marrow for which there are no easy cures or quick remedies. In MDS, the bone marrow is abnormal because of a variety of malignant changes. The result is ineffective production of normal mature blood cells, resulting in low blood counts (cytopenias). Various subtypes of the disease exist with variable prognoses, treatment options, and risk of developing leukemia.

A rare disease is one that affects fewer than 200,000 Americans. There are nearly 7,000 such diseases affecting nearly 30 million Americans.

On *Rare Disease Day*, people with rare diseases around the world promote awareness of the challenges of living with a rare disease. The global theme for 2013 is "Rare Disorders Without Borders."

World Rare Disease Day was launched in Europe four years ago and last year was observed in more than 60 nations. It is



Rare Disease Day®

always observed on the last day of February. On that day, patients and patient organizations will post stories, videos and blogs online and host events to raise awareness of these diseases, which are often called "orphans".

This year, the observance has special significance in the U.S. because 1983 is also the 30th anniversary of the Orphan Drug Act, which provides incentives to encourage companies to develop treatments for rare diseases, and of NORD, which was established by patient advocates in 1983.



ONCOLOGY NURSING SOCIETY

VISIT OUR BOOTH AT ONS!

Oncology Nursing Society 38th ONS Congress

April 25 - 28, 2013 Walter E. Washington Convention Center Washington, DC

The MDS Foundation is going to participate in the 38th ONS Congress which is a premier educational event for oncology nurses.

CHECK OUT OUR BOOTH #244!





THE SENATE AND GENERAL ASSEMBLY

JOINT LEGISLATIVE RESOLUTION tor Bucco and Assemblymen Bucco and Carroll

SRASS. The New Jersey Senase and General Assembly are pleased to acknowledge the last February 2013, as Kare Disease Day in the Gurden Sure; and,
BRASS. Rue Disease Day, which will be an engoing, named absorvance, it an appropriate time cirizens of this State to become informed about the nearly 7,000 of these maladies tha approximately 50 million Americans, including thousands in this State, and they place a sign emotional and financial desize on caregivers, furnilles, and employers, and,

immotional and financial drain on caregivers, families, and employers, and,

MSS, Half of the people affected by rare disease in the United States are children

the conditions being genetic, and childrenge facing individuals and framilies also in

beduning timely, socrate diagnose and physicians or terestement centers with

finited restament options that are more expensive, if available, and reimbursemen

private insurance, Medicare, and Medicaid; and,

MAS, The National Organization for Rare Disorders and the numerous entities

finesses are commended for their selfless and tireless efforts in empowering familia

mocouraging and funding research into the cause of these maladies, and educating the

professionals, and government appracise by distentionating information; and,

MAS, It is both proper and fitting for the members of this Legislature to puse in the

conception of the professional pay, and to salute the members and leaders

Organization for Rare Disease Day, and to salute the members and leaders

Organization for Rare Disease Day, and to salute the members and contemporary

of others; now, therefore,

ry 2013; and,







In 1983, the Orphan Drug Act was passed by Congress to create financial incentives for companies to develop treatments for rare diseases. Since then, more than 400 orphan drugs and biologics have been approved by the Food and Drug Administration (FDA). It is estimated that approximately 15 million Americans benefit from these products, but that still leaves millions more with diseases for which there is no approved treatment.

For more information about Rare Disease Day activities in the US, go to: www.rarediseaseday.us.

For information about global activities, go to: www.rarediseaseday.org.



STATE OF NEW JERSEY



WHEREAS, there are nearly 7,000 diseases and conditions considered rare (each affecting fewer than 200,000 Americans) in the United States; and

WHEREAS, while each of these diseases may affect small numbers of people, rare diseases as a group affect almost $30\ million\ Americans;$ and

WHEREAS, many rare diseases are serious and debilitating conditions that have a significant impact on the lives of those affected; and

WHEREAS, according to the Food and Drug Administration, nearly 340 orphan drugs and biologics approved for the treatment of rare diseases help between 11 and 14 million people, well over 15 million Americans with rare diseases have no treatment specific to their disease; and

WHEREAS, individuals and families affected by rare diseases often experience problems such as a sense of isolation, difficulty in obtaining an accurate and timely diagnosis, few treatment options and difficulties accessing or being reimbursed for treatment; and

WHEREAS, while some rare diseases, such as "Lou Gehrig's disease" and Huntington's disease, are relatively well known, many others that New Jersey families suffer with are not known at all by the public - so that patients and their families must bear a large share of the burden for raising funds for needed research; and

WHEREAS, the National Organization for Rare Disorders (NORD) is organizing a nationwide observance of Rare Disease Day on February 28, 2013, when patients, medical professionals, researchers, government officials and companies developing treatments for rare diseases will join together to focus attention on rare diseases as a public health issue;

NOW, THEREFORE, I, CHRIS CHRISTIE, Governor of the State of New Jersey, do hereby proclaim

> FEBRUARY 28, 2013 RARE DISEASE DAY

in New Jersey



GIVEN, under my hand and the Great Seal of the State of New Jersey, this fourteenth day of February in the year two thousand thirteen, the two hundred thirty-seventh year of the Independence of the United States.

MDS Resources

Highlights of Latest Literature in MDS

Suneel D. Mundle, PhD Rhea Mundle

Listed below are citations of some new publications relevant to MDS (pathogenesis, clinical characterization, management, etc.). To access the complete article log on to **www.pubmed.gov.**

EPIDEMIOLOGY:

- 1. Li X et al. Distinct clinical and experimental characteristics in the patients younger than 60 years old with myelodysplastic syndromes. PLoS One. 2013;8(2):e57392. In contrast to Western countries, MDS in Asia is common in younger individuals <60 years. The study demonstrated that MDS in this <60 year patient population were more likely in females, mostly had low-risk category, longer survival expectancy, less AML transformation, with frequent trisomy 8. low p15 methylation. with low proliferation index and higher degree of apoptosis of marrow CD34+ cells. These cases had amplification of T cells and low degree of colony forming units (CFU) in vitro. The latter improved after elimination of activated T cells.
- Roeker LE et al. Risk of acute leukemia and myelodysplastic syndromes in patients with monoclonal gammopathy of undetermined significance (MGUS): a populationbased study of 17315 patients. *Leukemia*. 2013; Feb 5 [Epub ahead of print].
 - A total of 17315 individuals studied had 605 MGUS patients (~3.5%). The risk of developing MDS (HR=2.4) but not that of AML or ALL was significantly increased in MGUS patients than controls,
- McQuilten ZK et al. Myelodysplastic syndrome incidence, transfusion dependence, health care use, and complications: an Australian population-based study 1998 to 2008. *Transfusion*. 2013;Jan 10 [Epub ahead of print].

This Australian retrospective study assessed 3149 MDS cases to show transfusion dependence (TD-MDS) in 56.3% males and 34.6% females. TD-MDS associated with new diagnoses of congestive heart failure (CHF), but not diabetes or liver disease. CHF was not the cause of death in these patients, however leukemia and sepsis were.

DIAGNOSIS/PROGNOSIS:

- Seiki Y et al. Increased plasma thrombopoietin levels in patients with myelodysplastic syndrome: a reliable marker for benign subset of bone marrow failure. *Haematologica*. 2013; Feb 12 [Epub ahead of print].
 - Patients with thrombopoietin levels ≥320 pg/mL tended to have low-risk MDS, responded to immunosuppressive therapy and had a better 5-year survival (approximately 94% as compared ~64% in those with lower thrombopoietin levels). The higher thrombopoietin levels may thus provide a favorable prognosis.
- Shih AH et al. Mutational analysis of therapy-related myelodysplastic syndromes and acute myelogenous leukemia. *Haematologica*. 2013;Jan 24 [Epub ahead of print].
 - When genomic DNA from 38 t-MDS/AML patients was subjected to high throughput PCR/sequencing, TP53 mutations were most common (21%) and TET2 mutations were found in 10.5% patients. Mutations or loss of TP53 correlated with worse survival when compared to wild type TP53 (8.8 vs. 37.4 mo respectively, P=0.0035).

3. Kulasekararaj AG et al. TP53 mutations in

myelodysplastic syndromes are strongly correlated with aberrations of chromosome 5, and correlate with adverse prognosis. Br J Haematol. 2013;160(5): 660–672. TP53 mutation status was assessed in 318 MDS cases. With a 45 mo follow up, 9.4% patients were detected with TP53 mutations exclusively in patients with chromosome 5 abnormalities (19% in del5q and 72% with complex karyotype including –5/5q-). TP53 mutations could be linked to a high TP53 protein expression, int-2/high risk MDS category,

- leukemic progression. Additionally, multivariate analysis linked TP53 mutations with poorer survival as compared to patients with a wild-type TP53 (HR-3.8; OS-9 vs. 66 mo, P<0.001, mutated vs. wild type respectively). Once detected, TP53 mutation did not disappear in sequential testing, but when it did on azacytidine treatment the patient responded to therapy.
- 4. Zhang Y et al. Expression of CXCR4 is an independent prognostic factor for overall survival and progression-free survival in patients with myelodysplastic syndrome. *Med Oncol.* 2013;30(1):341.
 - Using flow cytometry, 81 MDS patients were studied for the expression of a receptor (CXCR4) for stromal cell-derived factor (SDF-1) in bone marrow cells. The elevated CXCR4 expression correlated with shorter overall- and relapse-free-survival as compared to its low expression.
- 5. Bernasconi P et al. Validation of the new comprehensive cytogenetic scoring system (NCCSS) on 630 consecutive de novo MDS patients from a single institution. *Am J Hematol.* 2013;88(2):120–129.
 - The study evaluated which cytogenetic grouping (NCCSS or IPSS) when combined with WHO classification would best predict clinical outcome of MDS. The best predictive model for OS was found to be that combining the number of cytopenias, WHO classification and NCCSS.

INTERESTING CASE REPORTS:

- Shaharir SS et al. Disseminated tuberculosis masquerading primary myelodysplastic syndrome. *J Infect Dev Ctries*. 2013;7(3):286–288.
 - The study reported a case of disseminated tuberculosis with right empyema and pancytopenia showing caseating granuloma with Langhan's cells in the marrow and acid-fast bacilli detectable in pleural fluid. The underlying primary MDS was revealed only after cytogenetics study showing trisomy 8. The study thus demonstrated importance of cytogenetics in differential diagnosis of MDS from hematologic manifestations of tuberculosis.

high blast count and increased risk of

- 2. Koh YR et al. A rare case of transformation of childhood myelodysplastic syndrome to acute lymphoblastic leukemia. *Ann Lab Med.* 2013;33(2):130–135.
 - An 8 year old girl who presented with refractory cytopenia of childhood (RCC) had transformation to ALL only 3 months after diagnosis of MDS. The report also presents detailed cytogenetic and molecular microarray analyses.
- Ogura H et al. A case of myelodysplastic syndrome presenting with faggot-like cells. Int *J Hematol*. 2013;Mar 9 [Epub ahead of print].
 - A 62 year old Japanese male presented with a marrow histology containing promyelocytes with bundles of Auer rods resembling Faggot cells along with typical MDS features of dysplastic erythroblasts, micromegakaryocytes and Pseudo-Pelger-Huët cells. The differential diagnosis of MDS vs. Acute promyelocytic leukemia included the absence of PML-RAR fusion on FISH testing. The clinical course was typical of MDS-RAEB2.
- Knight J and Czuchlewski DR. Acquired elliptocytosis of myelodysplastic syndrome. *Blood*. 2013;121(4)–572.
 - MDS with del (20) (q11.2) case with progression of disease 5 years later showed development of elliptocytosis.

TREATMENT:

IMiDs:

- Kuendgen A et al. Lenalidomide does not increase AML progression risk in RBC transfusion-dependent patients with lowor intermediate-1 risk MDS with del(5q): a comparative analysis. *Leukemia*. 2012; Dec 21 [Epub ahead of print].
 - 295 patients from two clinical trials (MDS-003 and MDS-004) were compared to 125 untreated RBC transfusion dependent del(5q)/ int-1 patients from a multicenter registry. At baseline, the lenalidomide treated patients had higher transfusion burden than controls (6 vs. 2 units/8 weeks). With a median follow up of 4.3 years from the first dose of lenalidomide, the treated group was found to have comparable risk of AML progression

(HR=0.969), but had significantly improved overall survival with treatment (HR=0.597, P=0.012).

Demethylating Agents:

- 1. Lee YG et al. Comparative analysis between azacitidine and decitabine for the treatment of myelodysplastic syndromes. Br J Haematol. 2013;Feb 21 [Epub ahead of print]. Among the total of 300 patients (203 treated with azacitidine and 97 with decitabine), propensity-score matching yielded 97 pairs in which, no significant difference was noted in ORR (44% vs. 52%), OS (26 vs. 22.9 mo), Event free survival (7.7 vs. 7 mo) or one-year rate of leukemic transformation (16% vs. 22%) with azacitidine or decitabine treatment respectively. However, the older patients (≥65 yrs) had better survival with azacitidine.
- 2. Merkel D et al. Predicting infections in high-risk patients with myelodysplastic syndrome/acute myeloid leukemia treated with azacitidine: A retrospective multicenter study. Am J Hematol. 2013;88(2): 130–134. This retrospective study in 18 institutions in Israel evaluated 184 azacitidine treated patients (157 high risk MDS and 27 AML) that had 153 infection events in a total of 928 treatment cycles (16.5%) of which 75% events needed hospitalization and 20% were fatal. Multivariate analysis linked low Hb, low platelets and unfavorable cytogenetics with the risk of infections during azacitidine treatment.

PATHOBIOLOGY:

- 1. Damm F et al. SETBP1 mutations in 658 patients with myelodysplastic syndromes, chronic myelomonocytic leukemia and secondary acute myeloid leukemia. *Leukemia*. 2012;26:1137–1140.
 - The study showed approximately 15% prevalence of SF3B1 mutation in MDS and more than 50% of the patients with mutation had RARS.
- Velegraki M et al. Impaired clearance of apoptotic cells leads to HMGB1 release in the bone-marrow of MDS patients and induces TLR4-mediated cytokine production. *Haematologica*. 2013;Feb 12 [Epub ahead of print].

The study showed that marrow monocytes in MDS patients (n=27) expressed higher levels of Toll-like receptor 4(TLR-4) as compared to the healthy individuals (n=25). Moreover, patients' macrophages showed impaired engulfing of apoptotic cells and MDS marrow plasma revealed increased levels of a protein released from dying cells called high mobility group box-1(HMGB-1) which is a ligand for TLR-4. Coincubation of patients' marrow monocytes with autologous marrow plasma resulted in overproduction of pro-inflammatory cytokines previously reported in MDS marrows.

REVIEWS AND PERSPECTIVES:

The following articles provide significant review of literature and/or innovative perspective on the state-of-the-art in MDS and identify need for additional prospective studies.

- Tothova Z, Steensma DP and Ebert BL. New strategies in myelodysplastic syndromes: application of molecular diagnostics to clinical practice. *Clin Cancer Res.* 2013, Jan 17 [Epub ahead of print].
- 2. Khan H et al. Role of DNA methylation in the pathogenesis and treatment of myelodysplastic syndromes. *Semin Hematol.* 2013;50(1):16-37.
- 3. Otrock ZK et al. The need for additional genetic markers for myelodysplastic syndrome stratification: what does the future hold for prognostication? *Expert Rev Hematol.* 2013;6(1):59–68.
- Klimek VM. Recent advances in the management of therapy-related myelodysplastic syndromes and acute myeloid leukemia. *Curr Opin Hematol.* 2013;20(2): 137–143
- Sekeres MA et al. Improving the diagnosis and treatment of patients with myelodysplastic syndromes through a performance improvement initiative. *Leuk Res.* 2013; 37(4):422–426.

We would like to thank Suneel Mundle, a member of the MDS Foundation, for his assistance in monitoring these important peer-review publications on MDS.

From The Foundation

IT HAS ARRIVED!

Building Blocks of Hope.

A global MDS Foundation print and online patient advocacy initiative, providing a personalized educational program for the patient and caregiver to prepare, participate, and **LIVE** with MDS.

Access the website link http://www.mds-foundation.org/bboh/ for more information. Here you can view and download an online PDF version of the complete handbook.

Translations in Danish, French, German, and Spanish coming soon!

COMINGSOON



The MDS Academy is a comprehensive global educational initiative designed to support health care providers involved in the clinical management and support of patients with myelodysplastic syndromes (MDS).

The MDS Academy incorporates a variety of clinical resources:

Live Multidisciplinary Roundtable Workshops: A series of regional four-hour case-based clinical workshops for oncology professionals involved in the diagnosis, treatment and clinical management of MDS. Attendees will meet with clinical experts in MDS, review the most recent clinical data, and discuss practical tools for management of the patient with MDS.

Webinars: A series of taped lectures covering key topics pertinent to the clinical management of patients with MDS.

MDS Clinical Tool Box: A variety of clinical tools that will be maintained on the MDS Foundation website including the IPSS-R calculator, summaries of the most recent published data, links to other online resources, and tools to assist patients/caregivers to take an active role in their MDS care.



Regional, Live, Interactive Case-Based discussions with clinical experts



Educational Webinars for Physicians, Nurse Practitioners, Physician Assistants, Nurses, and Pharmacists



Practical tools for clinical management of MDS

Fundraising for MDS

Karen A. Wenzel Annual Golf Tournament September 2012

The tournament this year was probably my favorite so far. We only had 50 golfers, but a lot of new faces came out. Every year seems to get better and better. It's a wonderful day for people to reminisce about my mom and just have a fun time!

We decided to have it in late September due to the schedules of my wife and I, and my father who is a big help. Unfortunately it was a bit cold and rainy, but we made the absolute best of it! We have raised \$4,300 for MDS...so far!

For years to come we will continue to keep my mother's memory in our hearts and minds, and continue to support the MDS Foundation!

Paul Wenzel

Do you want to raise money for a cause that's important to you?

Do you have some fundraising ideas that you are willing to share?

If your answer is yes, then the MDS Foundation would love to hear from you.

Give us a call at 800-MDS(637)-0839 or email to tiraca@mdsfoundation.org. We'll be thrilled to speak to you!

A special thank you to Paul Wenzel who held his annual Golf Tournament in memory of his beloved mother, Karen A. Wenzel. He has found a way of keeping his loved one's memory alive by giving to the MDS Foundation and helping patients and families benefit from our educational and patient support programs.

Get Involved...We need your help!







Patient and Family Education Forums

SPREADING THE WORD WORLDWIDE

FREE One-Day Conferences for MDS Patients and Their Families

Ongoing meetings in the US and Europe addressing quality of life issues for MDS patients are planned for 2013. Learn the latest on the diagnosis and treatment of MDS from leading experts in the field. These conferences will occur in eleven cities around the world in 2013. A global patient forum will be held alongside the 12th International Symposium on MDS in Berlin, Germany.

CALENDAR OF EVENTS

February 23, 2013 – Gainesville, FL
March 2, 2013 – San Diego, CA
April 20, 2013 – Atlanta, GA
May 11, 2013 – Berlin, Germany
July 13, 2013 – Chicago, IL
September 28, 2013 – Long Island, NY
October 12, 2012 – Indianapolis, IN
Philadelphia, PA (Date TBD)
Buffalo, NY (Date TBD)

Registration is required to attend. Contact Deborah Murray at 800-MDS(637)-0839 or email dmurray@mds-foundation.org.

For updates, check our website http://www.mds-foundation.org/events and facebook.

PLEASE MAKE SURE TO REGULARLY CHECK OUR ONLINE EVENTS CALENDAR FOR MEETINGS TAKING PLACE IN A CITY NEAR YOU!

Featured MDS Patient Support Group - New York, New York

Ann Arbor, MI (Date TBD)

A new support group has begun meeting at Memorial Sloan-Kettering Cancer Center, 430 East 67th Street (Between York and 1st Ave) in New York City.

The group had their inaugural meeting on January 26, 2013 and their next meeting is scheduled for Saturday, April 13, 2013.

According to Lisa Tomcykoski, the daughter of an MDS patient, and Chair of this group, the support group got off to a strong start and the attendees were grateful and eager for future meetings to come.

Dr. Virginia Klimek spoke to the patients and welcomed them to the first support group meeting and Nurse Sandra Kurtin presented an audio/slide presentation to the patients and their families.

There were a lot of discussions throughout the meeting. The patients were very eager to give feedback to help see the group continue and progress.

All patients shared their stories with their condition and their day to day lives with MDS. There was a great deal of talk on the importance of finding the right doctor, finding a center of excellence, finding a doctor that takes the time to truly care. There was a couple seeking answers for their mother. They are seeing a local oncologist and came to the meeting in search of gathering information from other patients.

The group offered a great deal in terms of what they are looking for. Many of the patients attended a recent MDS Foundation Patient Forum in NYC. Dr. Virginia Klimek was the speaker. This forum held in NYC and

Dr. Klimek was very well received by the patients and families. Several patients asked if she could return to speak at future group support meetings.

The group loved the opportunity to sit around a large table and share their stories. They appreciated Sandra's presentation. The books were greatly appreciated. One gentleman said, "This is perhaps one of the best put together books I have seen."

Overall, I truly think the meeting was a huge success. The patients and families will benefit tremendously from future support groups. Dr. Klimek emailed me a lot of great information on getting started with support groups. I thank her for all of her assistance with the meeting and helping it start out in becoming a success. Also, the books Sandy provided are an excellent resource for the patients. The patients and caregivers loved the books.

A special thank you to Audrey Hassan, Dr. Klimek and Sandra Kurtin for making the first meeting such a great success.

Dr. Lisa Florence Tomcykoski

UPDATE: The MDS Foundation is saddened to report that Lisa's mother, Diane Lisa Tomcykoski, passed away in early March. We offer our sincere condolences to the Tomcykoski family and the many other people who cared about her. Dr. Tomcykoski will continue as the group leader for the NYC MDS Patient Support Group. We extend our deep appreciation to Dr. Tomcykoski for her dedication and support to MDS patients during this difficult time.

Established MDS Patient Support Groups

United States

Chicago, Illinois MDS Support Group

Meets on the fourth Tuesday of the month from 1:30–3:00 pm at Northwest Community Hospital's Cancer Service department (lower level), 800 W. Central Road, Arlington Heights, Illinois. Contact Kim Jensen at kjensen@nch.org or call: 847-618-6914.

Lakeland, Florida Regional MDS Support Group

For more information call Vivian Paul at 863-698-5137 or Kathe Dempster at 863.816.8482.

■ New York, New York MDS Support Group

Contact the group facilitator, Lisa Tomcykoski at drtomcykoski@yahoo.com for further details.

Philadelphia, Pennsylvania MDS Support Group

For more information call the MDS Foundation at 800-MDS(637)-0839 or email Audrey Hassan at: ahassan@mds-foundation.org

Puget Sound MDS Support Group

For more information call Janine Kowack at 206-992-0609 or email jkowack@ comcast.net.

Southern California MDS Support Group

Meets on the third Saturday of the month at St. Mary Star of the Sea Church, 609 Pier View Way, Oceanside, CA 92054 at 2:30 PM.

Contact Susan Urban susanurb@gmail.com or call: 760-438-5130.

Stanford Cancer Center MDS Patient & Family Support Group

Meets the third Monday of the month from 6:30–8:00 pm at the Stanford Cancer Center, 875 Blake Wilbur Drive, Palo Alto, California, 2nd Floor Conference Room CC2105. Contact Group Leader, Lenn Fechter, RN, BSN at: 650-725-0744.

■ Folsom, California MDS Support Group

Will hold it's inaugural meeting on Tuesday, May 7, 2013. For more information call Jalil Fardanesh at 916-984-6468 or email jfardanesh@gmail.com.

International

Belgium:

 Belgische MDS Contactgroep http://mds-foundation.org/psg/vlaamse

Canada:

- Hamilton, Ontario MDS Support Group http://mds-foundation.org/psg/cpsghhs
- Toronto, Ontario MDS Support Group http://mds-foundation.org/psg/cpsgt

Czech Republic:

Sdruzeni MDS http://www.diagnoza-mds.cz

Denmark:

 MDS DK Patientstøttegruppen http://www.mds-and-you.info

France:

 Association Connaître et Combattre les Myélodysplasies http://asso.orpha.net/CCM

Germany:

- MDS-Net Deutschland http://www.mds-net-de.org
- Interessengemeinschaft von und für MDS-Patienten http://www.interessengemeinschaft-mds-patienten.de

Japan:

 MDS Renrakukai http://www.geocities.jp/mdsrenraku

United Kingdom:

 UK MDS Patient Support Group http://www.mdspatientsupport.org.uk

Global MDS Patient Support Groups

The overwhelming success of our Patient & Family Forums, which allowed patients to meet peers who live in their community, has led us to create permanent support groups worldwide. If you are interested in joining a few other people to help start a needed support group for MDS in your area, please contact us today.

Patient Contributions

PATIENT TESTIMONIALS

Patients Speak Out...

"So happy to see @MDSFoundation has a twitter handle. You were all so good to my family when my father was newly diagnosed."

Dee Ann @dee22ann

"Thank you so much. You guys are AWESOME."

I don't know how to quantify my gratitude to you and your staff. HOPE is powerful in recovery and that is what you and your staff provide with these tools; HOPE.

Juan Amador

"I received my copy of "Building Blocks of Hope". The work and effort you put into the Book shows in the finished product. My first word to Janet was "WOW."

Since my diagnosis in 2002, I have run across many physicians who have heard about MDS but don't know what it is or have never heard of MDS. Building Blocks of Hope fills that gap. For patients and caregivers it is a must either through hard copy or the Internet. Janet and I found it a pleasure and an honor to assist in your project.

William Pearson

"Thanks for all the good information in the MDS News."

Phyllis Simons

"I have been fortunate to work with the MDS Foundation in my role as Patient Advocate Liaison at Diplomat Specialty Pharmacy."

They have a wonderful caring staff and leadership that are increasingly finding ways to bring more education and information to the public about this rare disease.

Brenda Hawkes

"Thank you for all you do!

Cathy Smith

"Thank you very much for inviting me to the patient forum."

It was a very good discussion provided by Dr. Bennett and Nurse Sara Tinsley. I very much enjoyed meeting everyone and learning about others experiences. I know I was the youngest MDS patient in the room, yet I was prepared for that in advance. I was happy that others could share their experiences, and give me hope for the future.

Suzanne Bloom

"Everything you do to help is greatly appreciated. Thank you! You're a good organization."

Leonard Yool

"It was nice to meet you at the forum."

I looked over the information packet that was given to all of us and it contained a lot of useful information. I just love Dr. Rossetti. To the folks that were there, maybe we will all keep in touch if they want to continue and talk about MDS.

Vince Rusak

"The patient forum was simply wonderful. Thank you again to all involved!"

Michele Spring Fajeau

"I'd like to thank you so very much for a WONDERFUL and helpful seminar."

I was sad to see the number of people there with MDS... I wouldn't wish this on my worst enemy. I think for the number of us, we found that we "aren't" alone. Out of all the people there, only 5 people were from my area, Lakeland, and Winter Haven. We are planning on getting together once a month and now we know we are "No Longer Alone", and we are just a phone call away when we need to talk with someone. The people whom I talked with all felt the same way.

Richard Brackett

"It was so nice to meet you.

You do such a nice job with the
patients and the caregivers.

I learned so much about MDS
attending this seminar."

Julie Bade

"I received your copy of Building Blocks of Hope. It was very informative."

There was a lot of information in it that I didn't even know about. Thank you so much for putting it together.

Pat Thompson

"I just wanted to tell you how much Boris and I enjoyed the Patient Forum."

It was excellent and we came out with such good, pertinent information. Dr. Steensma is excellent and so patient with everyone's questions; he gives a wealth of facts with each question. Thanks for feeding us and organizing such a good program.

Carol Ann Gould

"I just wanted to take a minute to let you know that my wife and I found your patient forum informative and useful."

Both of the speakers were standouts. And in our opinion, the meals were well done. Thank you and the MDS Foundation.

John Cloutier

"I find your organization extremely helpful, and it is good to be able to attend the events which your Canadian representatives organize from time to time."

With a fairly rare disease, it was hard initially to get the right information, but when I found your organization online, it helped a great deal. Thank you for all you have done for me. *Rosemary Pauer*

BUILDING BLOCKS OF HOPE PRESENTATION

Patient Presentation

November 1, 2012 Tampa, Florida

Robert Weinberg

My name is Bob Weinberg. I was diagnosed in 1998 at age 48 with MDS-RARS (refractory anemia with ringed sideroblasts). Here are my numbers: Since then I have received over 850 units of packed red blood cells. My white blood cells hover around 2.0, my absolute neutrophil count (ANC) between 500 and 700 and my platelets between 30,000 and 40,000. My blast count is under 5%. My current transfusion frequency is 7-8 days. I take 2,500 mg of Exjade daily. My ferritin level, checked monthly, ranges from 450 to 700. I have an MRI every year on my heart and liver, looking for embedded iron in those organs.

My MDS story began in the water. During my 30's and 40's, I was an avid swimmer. Every morning before going to work at a large high-pressure law firm in Philadelphia, I would sleepwalk my way to the local Y to swim my daily mile—thirty-six laps. I was only one of a group of groggy people who began their day with a swim. Side by side, we would glide through the water, and being competitive by nature, we each knew which swimmers would pass us and which swimmers we would pass. Until the winter and spring of 1997-98. That is when I found the morning swim's natural order of things out-of-whack. Those I usually passed started passing me. Those who would pass me once every four laps would pass me twice as often. So to build-up my stamina, I thought that I should jog as well. After running less than a city block, I had to stop, almost keeling over with a sharp pain in my chest, severe breathlessness, aching calves, a pounding heart and dizziness. Something was wrong, so I gave up jogging after one try and went back to the pool. Over a couple



MDS Patient Bob Weinberg

of months, my stamina and strength declined to where every one of my fellow swimmers passed me. I could not even swim six laps. I started to need a nap in the afternoon—at 48 years old. It was time to see the doctor and have my first ever physical.

That was on a Friday, and by Tuesday morning I learned the words "myelodysplasia" and "sideroblastic anemia." I went right to Google. The first thing item that came up was an article on Carl Sagan. I knew I was in for a game-changer. My siblings were tested for a bone marrow match and both failed. My internist called to ask me if "my affairs were in order." That is when the hematologist at the local hospital told me that he had patients like me with low hemoglobin, but manageable platelets and white cells, who lived on transfusions for 15 years. I then visited a specialist in MDS at a major university medical center for a second opinion. He said that I should not expect to live more than five years. I told him that I had a better offer from the hematologist at my local community hospital, and he said he could not match that. So, of course, I took the higher offer and my community hospital is where I have been treated for the last 14 and one-half years.

Not that I didn't visit the best of best in experts over the next 10 years—Stanford University, Memorial Sloan Kettering, Moffit Cancer Center, University of Rochester, Mt. Sinai. I remember my first visit with an international expert. I asked him what causes MDS. He quickly replied, "bad luck." I took Revlimid on a clinical trial, but all it did was lower my blood counts, cause boils and make my hair itch. I took Vidaza, and it worked for 5 months, but within less than a year of starting it, I was back on a 14 day transfusion frequency.

I learned the words "myelodysplasia" and "sideroblastic anemia." I went right to Google. The first thing item that came up was an article on Carl Sagan. I knew I was in for a game-changer.

So the family flew to Seattle in early 2006. We visited the Fred Hutchinson Cancer Center, which I was told was the place for MUD (matched unrelated donor) transplants. The doctor sat my wife, my 23 year old daughter, and me down at a small round table in a small windowless conference room and told us that I had only six months to live unless I submitted myself to a mismatched unrelated donor bone marrow transplant. Chances of surviving 5 years were 65%. So I gave notice at work and my wife and I leased an apartment in Seattle. But first, I took a 10 day motorcycle trip in Europe, where I conveniently broke my ankle when my Ducati spilled on gravel and landed on my foot. That set back the transplant schedule. Bones won't heal when your immune system is suppressed as it is in a BMT. By the time my ankle had healed, however, I decided against the unrelated mismatched procedure. That was 6 and half years ago. I recently had the donor search re-run, and I learned that with the donors available and the billions of antibodies I have garnered from so many past transfusions, I should consider a BMT only if it is my very last option. So I am sticking with the transfusions.

By year 2009, transfusion frequency was down to 10 days, and I was faltering in meeting the pressures at work what with the interruptions for blood tests, feeling lousy and transfusions. So I cut my workload by 80%, became further involved in the MDS Foundation and spent much more time walking my dog. Meanwhile, antibodies seem to be destroying the transfused blood more quickly and preventing me from getting quite the same energy lift I used to get from a transfusion. But time marches on, and I have no sense that anything is coming to a close.

Recognizing that MDS comes in many shapes and sizes, I have lived by the following points.

- 1. Don't worry about something that may happen in the future.

 I can worry about it when it happens.
- 2. Do everything I can to be informed so I can make intelligent choices.
- 3. Don't get caught up thinking that I am in a battle in which I have some control over whether I win or lose. We are in the realm of those things over which we don't have control.
- 4. If things don't work out, it is not because I did not fight enough, or I did not have faith enough, or others weren't praying for me enough.

PATIENT STORY

My MDS Journey

February 25, 2013

Doug Nelson

Well, here I am almost 7 years after my syngeneic stem cell transplant for MDS. And, thanking my identical twin brother Denny every day for donating his stem cells for my transplant.

Thought I would share my journey after the transplant, beginning in July 2006.

After a small diversion post-transplant, fungal infection in my kidneys, I was released from Sloan-Kettering in July of 2006.

I spent the next year at home in Stamford, Connecticut. In July of 2007 I went back to work as a manager of William Raveis Real Estate. In June of 2008 my partner and I made the decision to retire to Durham, North Carolina.

Someone asked me what I was going to do during retirement. My comment was, "I'm going to do something; but I know what I will not do. And that is to obligate myself to be at the same place, the same time, 5 days a week."

I will say that I am now busier than ever, but on my own schedule. I sell real estate, I have designed and am marketing a fabric for the Green Roof Industry, I go to estate sales every weekend, and am on the HOA Board of

our townhome community. Now the newest member of our family is our labradoodle puppy, "Porter". In addition to all of the above, we are renovating a vintage 1928 home in Durham, close to Duke University.

The thing closest to my heart now is being an advocate for Vietnam Veterans, like me, who have been diagnosed with MDS because of exposure to Agent Orange while serving in Vietnam, and are not getting any compensation from the Veterans Administration.

MDS is not yet on the presumptive list of diseases caused by exposure to Agent Orange which automatically guarantees Vietnam Veterans VA compensation.

In short, I am back to normal activities; oh, did I forget to share with you that I swim a mile a couple of times a week.

My recipe for recovery is to get out and do things. Think positive and don't dwell on the "Why Me Syndrome".

I must say that along with a successful stem cell recovery, I look at life a little different. I know that there is no guarantee, so I do as much as I can and enjoy what I do. Hey, the little things don't bother me anymore. There is life after a transplant, but it's up to you to find it.

Most of all, I appreciate my partner, my family and friends more than ever.

Regards, Doug Nelson



MDS Patient Doug Nelson

PATIENT STORY

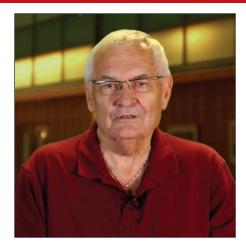
My Story

William Pearson

My name is William Pearson; I am 76 years old and live in Hamilton, Ontario, Canada. I was born and raised in Nelson, British Columbia. Following school, I played hockey for two years and after that worked in the steel manufacturing sector for 45 years. Following my retirement I started a consulting business. My consulting projects took me to different parts of Canada, Germany and Poland. When I was in Krakow, Poland, our office was within walking distance from our hotel and then from there I arranged transportation to different steel plants in that area. One week into the project I started to labour in my morning walk to the office. At this point I found it difficult and started to taxi back and forth. Walking about the steel plants became more difficult. Climbing stairways to operating decks became difficult. I found myself having to stop every 5 to 6 stairs before I could continue.

On my return to Canada my first visit was to my family doctor who ordered blood tests. She called me after receiving the results. My hemoglobin was 88 mg/dL (or 8.8 g/dL) — well below the normal range. She referred me to a hematologist. Thankfully, I wasn't going to a stranger, as I had seen the hematologist in the past with other problems. I find it more comfortable if you know the doctor you are about to see. The hematologist repeated the blood tests and at the next visit, I had a bone marrow biopsy and aspiration. (January 2003 hg.81[8.1])

In a follow-up appointment 6 weeks later, she indicated that the results didn't look good. She also needed to repeat the bone marrow to get more information to compare. I still kid her that she bent the needle during the second bone marrow aspiration on purpose, but she maintains it was my bone structure being so hard and nothing to do with her. At this point I started red blood cell transfusions to maintain my hemoglobin. (March 19, 2003)



MDS Patient William Pearson

On the next visit, she indicated the results of the two bone marrow procedures indicated a diagnosis of MDS. I don't remember any fear or concern other than what's next. We discussed the option of a stem cell transplant. If that was to proceed my sister would be the most suitable candidate. I called my sister to discuss this with her. My sister Jane lives on the west coast about 5 hours by plane. Her response was "How soon do you want me there?" Bone marrow transplants take time to plan and not all patients are able to have an allogeneic bone marrow transplant. My age at the time being 60+ was a factor, just outside the range recommended for this type of transplant. So the doctor suggested a pill, Danazol, which might help my bone marrow function better. She indicated that based on her experiences, it was working in about 5% of her patients.

After a period of time the drug stopped working and I was being transfused 2 units of blood at two week intervals (between April 2007 and January 2008). I had developed iron overload as a result of all of these transfusions. She referred me to a major cancer hospital in Toronto, about 60 kilometers away. The hospital (Princess Margaret Hospital) has the reputation of being one of the top cancer hospitals in the world. My 1st appointment was early in September 2007. I was referred to this

hospital in hopes of being fit into a clinical trial for new treatments for MDS. After another bone marrow procedure and several visits it was determined that I did not meet the criteria for any of the drug trials.

In December 2007, my doctor wanted to try a drug called Cylosporine (auto immune suppressant). After reading all the literature on the drug I determined it was not for me. Big mistake on my part. My wife and I got to know the doctor very well seeing her every two weeks for 3 months. We developed an admiration and a dear respect for her. When she said it was the best treatment for me at that time and that we needed to consider it, our yes came very quickly. The results were very positive. At one of my appointments the doctor and Janet (wife) said phlebotomy in unison. I had a total of 3 which brought my iron overload out of the critical area.

Today I am still on cyclosporine and it is holding my hemoglobin in the range of 105 mg/dL (10.5g/dL). We can't increase the dosage because of it has affected my kidney function.

How is my Quality of Life?

To sum it up, for the most part there has been little change. Some days are worse than others. An example—walking a kilometer one day without stopping and other days having to stop for a moment every 5 meters. Lifting is also a chore, housework exhausts me—sometimes my excuse works, but not too often as Janet knows it is a poor excuse to avoid it.

We still travel. In 2010, we went to Scotland for a holiday in conjunction with the MDS Foundation International Symposium. Janet and I spoke at an MDS forum for patients and their caregivers from all the European countries. We travel across Canada to the west coast yearly. I still play golf with the use of a power cart. The golf club puts a flag on my cart to allow me to take it to as close to my ball as possible excluding the greens.

What are my fears?

I am apprehensive about my life with MDS. I don't dwell on it and for the most part have little fear. The only time I get a bit edgy is after blood tests while I am waiting for results.

Early in my diagnosis I enrolled in the Leukemia Lymphoma Society first connection program until about a year ago. The LLS would contact me that X person would like to talk to someone with MDS. Being the only name in the databank I would be asked if I would contact a person regarding MDS-95% of the folks were from the United States. I think that my sense of helping someone else took away my own anxieties.

I have seen a major change in the past 1 ½ years. MDS is no longer in the closet so to speak. A significant example is Robin Roberts, anchor for ABC Good Morning America. Robin went public on her show and many stories about MDS were in newspapers across the country. ABC continues with updates.

MDS is no longer in the closet so to speak. A significant example is Robin Roberts, anchor for ABC Good Morning America. Robin went public on her show and many stories about MDS were in newspapers across the country. ABC continues with updates...

What are my hopes for the future?

I'm not sure how a 76 year old man should feel. Quality of life and longevity of life are my biggest hopes and I would be satisfied with status quo. I do hope that in my lifetime I see research that would treat and maintain MDS of all types.

Stay Connected to the MDS Foundation...

Follow us on:

facebook.





Support the MDSF!

Please support the work of the Foundation in the battle against MDS and consider donating all year long. Kindly use the enclosed pre-addressed contribution envelope or go to www.mds-foundation.org to make your donation.



Every penny helps. All donations are tax-deductible. Thank you for your continued support!



The MDS Foundation is very grateful for the heartfelt support of its donors. Our work as a non-profit organization depends on public funding, and we hope that you include us as one of the worthy charities that you support this year.

Join the MDSF Development Committee!

The MDS Foundation is seeking members to join our Development Committee. Whether your contribution is time, skills, funds, or ideas you can make a difference! For more information contact Tracey Iraca at tiraca@mds-foundation.org or call **800-MDS(637)-0839.**

A Special Thank You to

GABRIELLE'S
ANGEL FOUNDATION
FOR CANCER RESEARCH

We would like to especially thank

Gabrielle's Angel Foundation

for Cancer Research

for their generous grant in the support of young investigators through the MDS Foundation.

Thank You to Our Sponsors for Their Support

AMGEN









FAMILY STORIES

Our Journey to Hope

Tammy Karnes

Larry Karnes story begins in April of 2006. We were driving to a family reunion when Larry asked me to make him a doctor's appointment for that Monday. He had been feeling bad with night sweats, bloating, loss of appetite, and fatigue for the last several months and although his doctors had performed multiple tests, nothing definitive could explain how he was feeling. You can imagine my horror when he showed me a large knot on the side of his neck. It was as big as golf ball. I sat there in shock, and scared to death of what it might be. As usual though, Larry decided he would not dwell on what it might be. As a retired Maryland State Trooper it was ingrained in him to stay focused, remain calm, evaluate the situation, and respond appropriately. At this time it was just a lump and no more he said, and that's all we knew. The rest of the car ride was quiet, and I am not sure what we thought. But I believe we both knew that lump couldn't be good.

The Diagnosis

It took several weeks before we got any answers to what the lump was. There were so many blood tests, biopsies, and scans that Larry had to endure over the weeks, that it was just a relief that we were finally getting an answer. On May 6, 2006 the doctor gave us the news that would change everything we ever knew. She said Larry had Stage II B Nodular-Hodgkin's Lymphoma. We knew that meant cancer. My brain was on override. Oh my God, she said cancer. My husband has cancer! My mind was racing, and heart was beating, and I was saying to myself don't cry, don't cry. Be strong and stay positive. I looked at Larry and he wasn't saying anything, just nodding. It wasn't until the car ride home that I realized he was in more shock then I was and he needed me to tell him what the doctor said. Larry was my rock and now I had to become his place to



lean on. He would need me to take in all the medical terminology so he could focus on healing. The doctor addressed treatment with him and felt that based on his tests he would need six months of chemotherapy/twice weekly, and that was his best option for the best outcome. We were ready to move forward so we could move forward with our future together.

Opening up and Sharing with Friends, Strangers, and Learning to Live with Cancer

Larry has always been a very private person, and was not big on sharing his feelings. This was also in his upbringing, and was taught as part of police training from the academy. So calling the kids and telling them would be a job we did together. We called our oldest Lori first, and then her sister Kelly. We decided to wait and not call our youngest Crystal, since she was away in California at school. She would be home in several months and we would tell her then. The girls were clearly sad and worried about what might happen but we assured them as we had always done that their dad was a fighter and would beat this. Larry had me call his brother Sonny since he felt it might become too emotional. Our friends and family were also devastated by the news, and were super supportive in helping Larry with his recovery. Larry worked for the state of Maryland at the time as a bailiff for the District Court. His employers and co-workers were so very supportive and made it easy for him to work around his weekly treatments, and doctor's visits.

Learning to Lose Control

At the time I was a licensed realtor which allowed me to make my own schedule and be able to be with Larry during all his treatments and tests. I was making a pretty good living and had saved, so financially we were in a good place and really didn't worry about being able to meet the bills or the extra expenses of cancer treatment. I felt I had pretty good control of the whole situation. We believed that Larry was going to beat this, and so did his doctors. We could afford for him not to work if he needed that. Over the next six months we made our weekly trips to oncologists, labs for blood work, diagnostic tests, and did not make many adjustments to our lives. We went on and tried to keep things as normal as possible. Larry's treatments didn't really affect his spirits much since he had very little nausea, and he didn't care a whole lot about the hair loss. In the beginning he gained weight due to bloating from medications and treatment. This however bothered him the most. He was now known as "Kojak" at work since he gave out lollipops to anybody who came into the court house with kids. Everyone thought that he was responding well since his blood work always was good. We even moved on to build our dream home during all of this. We decided that this diagnosis would not change our lives. That we would not let it control us. We believed that Larry would face this battle head on, and tackle it. Little did we know that cancer does not care what you decide, it has a plan of its own. It has all the control and how you react to it is up to you.

A Second Diagnosis

An Aggressive Form of Hodgkin's Lymphoma

In March 2007 Larry completed his treatment with 48 rounds of chemotherapy. We both were exhausted, and relieved that his last scans did not show any new tumor growth. However if you looked at him you could clearly see his neck swelling, and

chest inflammation from new tumors spreading through his body. However we did not know what this was for sure. We had to wait for a new PET scan until mid-March/April because sometimes chemo can mask the outcome of these tests. By the time we did the PET scan it confirmed what we worried about. The tumors had spread through his body. The PET scan read "too numerous to count!" Our wonderful doctor, Dr. Mary DeShileds, sent Larry's case to Johns Hopkins Hospital in Baltimore, MD. By the end of May we were meeting with a team of doctors at Hopkins to talk about a bone marrow transplant. This would be his only hope for survival, and the odds were against him from the start.

His only brother was tested, and was disappointed that he was not a match. At the time, his daughters were unable to donate due to medical reasons. This left only one way for the transplant, he was going to have a Pherisis blood transplant - autogulous bone marrow transplant. He would use his own bone marrow. The process was so long and in between he would undergo a second round of chemo. That had to be done in the hospital since it was super strong. So over the next month he would have 5 days of 24 hour rounds of chemotherapy called ICE. His odds of a remission were greater. If the tumors were to shrink, even a little bit, the odds would be better for his outcome of a cure. Larry had to undergo so many tests to prepare for the transplant, and I had to give him daily injections of a growth factor drug, Nuepogen, that helped build his white cells. This was needed to prepare for the Pherisis blood transplant. On the day set to remove and clean his blood with a machine called a pherisis, new problems arrived. Larry's blood didn't mobilize. This is where the white cells that have grown would not leave the marrow, and move into the blood stream so they could capture them. This meant they had to do the transplant the old fashioned way. They would now be drilling several small holes into his hips/backside to remove the bone marrow, clean it, and freeze it to use later.

Insurance

We had insurance approvals to wait for that took several months, and then finally the date. The doctors called and said, October 10th. This was the day set for new beginnings. This was really weird and cool since this is also our wedding anniversary. Our stay at Hopkins would be a minimum of 60-90 days in hospital. To survive this he would have to be strong minded and follow strict rules. The smallest infection could kill him. He couldn't leave his room for a week and then if he even went into the hall to walk, he had to wear a surgical mask everywhere. We were not allowed many visitors, and could not see our grandson at all during that time. We had to deal with a strange odor that smelled like a cotton candy/creamed corn combo. This was caused from the new marrow growing inside his body. The smell was nauseating for both of us. We believed the hard part was over, and now we could get back to some normal life. Boy we were naive. Little did we know that we were in for the rollercoaster ride of a lifetime, fully equipped with more emotions and decision making we ever could dream.

A Third Diagnosis

In November 2007, we asked if we could go home for Thanksgiving and be with family. The doctors were hesitant but allowed us four days at home, and then back to Hopkins first thing Monday morning. Before going home they ran several tests, and would go over the results when we returned. The scan showed two enlarged lymph nodes in his right upper chest. The doctors at Hopkins felt that this was possibly the Hodgkin's coming back and he would need to have radiation to ensure that it didn't become aggressive. They could not do a biopsy since it was in located in the lungs, and his platelets and other cell counts had not recovered completely yet from the transplant. So on January 7, 2008 we went in for his first round of radiation out of 17 planned treatments. His weight had dropped so fast, and his blood counts were almost to nothing when they decided that he could not take on any additional radiation. He went from 195 lbs to 160 lbs in less than 3 weeks. We were sent back home again when Larry started having some breathing issues. He had to be readmitted to Hopkins for fungal pneumonia.

This was really serious since he did not have an immune system to help him fight off infection. He was also passing out and showed some signs of possible strokes or seizures and I requested a brain MRI. The test came back showing a small brain tumor and would need to be watched closely. He would be fighting the fight ever. Dealing with infections, no energy, and not really knowing what type of tumor was now growing inside his brain. The doctors did not know which way this would go. They believed that their jobs were done but would not give up on trying to help us or keeping us in the loop. This would be the beginning of the first of thousands of blood and platelet transfusions he is still receiving today. By May, Larry had decided that he no longer wanted to go to any hospital each week, and would go without any transfusions to see what would happen to his marrow. Larry wondered if it would grow on its own. Larry had been a survivor now for 3 years, and he wasn't planning on going anywhere without a fight.

Finances

At this point we had both been out of work for two years. Medical bills and travel to and from the hospitals, and just everyday living expenses had taken most of our life savings, and his monthly retirement could not meet our most basic needs. We had to make the decision to let our dream home go, and move to a rental. We both decided that being together was the most important thing. Larry was just getting back to being able to go back to work part-time, so long as I drove him. So this is when I decided to enroll in college as an education major, and left the high paced life of real estate. I first worked as an ESL (English as a Second Language) teacher for the state of Delaware and now I work for the Milford Boys & Girls Club as an art teacher. Larry eventually was able to drive again, and life began to become a little normal for awhile. We made decisions that we would never put things off and that being together wherever that might be was our number one priority. Over the next 2 ½ years, we made work, vacations, family, school, and sometimes an occasional doctor became our normal life. The doctors had explained that Larry's bone marrow may not ever recover completely but he could learn to live with that, and it was a possibility that he may develop MDS (Myelodysplastic Syndrome). We decided that possibilities were too vague, and that was no way for us to live. Larry would not let us worry about something that may never happen.

The Stroke and Terminal Diagnosis/MDS

On August 21, 2011, our lives were thrown upside down and side-to-side once again. We had a birthday celebration for me with friends, and family. It was such a great day. Everyone was together, and Larry was running around playing squirt guns with our grandson, and cutting up and enjoying the day. He was feeling really good. The next morning Larry got up and was trying to tell me how tired he was but I really couldn't understand him. I asked if he was okay, and he replied that he was feeling tired but other than that he was fine. I told him to drink some water, and I would be out to get us some breakfast. As I entered the kitchen, I notice that he was having difficulty pouring juice, and asked him to sit down. He also had a hard time speaking, but his symptoms went away the longer he sat. However as he stood he got worse. We decided that we needed to go to the hospital immediately.

Once we arrived at our local hospital, he was diagnosed with having a stroke, and they wanted to start him on Heparin, a blood thinner to help stop him from stroking. I explained that he was not able to have this medication, and would not allow them to start treatment. We had been told at Hopkins to never let him receive blood thinners if his platelet counts were below 50,0000, and his average was 21,000 or less. I also was

concerned that his other blood counts were extremely low, and wanted him moved to Hopkins. I contacted his transplant doctor at Johns Hopkins. She was very concerned and worked hard to have him moved from our local hospital to Johns Hopkins stroke unit, and then later, the cancer unit. Once we were there our worst thoughts were confirmed. Larry had developed a high grade of Myelodysplastic Syndrome as well as anti-phosolipid antibody syndrome which can cause a person to develop clots. He would require blood thinners to stop the strokes, but he also had platelet counts that would require him to have transfusions since they were lower than 20,000 on average. They began him on platelet transfusions prior to the Lovenox injections. This injection would become something he needs for the rest of his life. His treatment plan was going to be a tricky one. How would they keep him from stroking, and bleeding out? It would take endless monitoring, and multiple transfusions every week. He needed my full attention. He would also need occupational and speech therapy because the stroke left him unable to use his right arm and hand and his speech was not clear. This would mean work and school would have to be put on the back burner again. I was now a full-time caregiver, and Larry a fulltime patient. He had his job and I had mine. The doctors would release us back to our home oncologist, and there Larry would begin his way back to a life that would never be the same.

Bucket List

The doctor's new diagnosis was six months to one year at best but could be more if God willing, and Larry being able to fight. We remained hopeful, and asked that everyone pray for him, and me that God give us both the strength to stay focused on living the best life possible. We decided to cash out life insurances policies to allow Larry some freedom to fulfill his bucket list. We made plans to travel to Disney World, vacation with our family to Nags Head, N.C., and a road trip to Mount Rushmore, South

Dakota. The staff and members at the club were great about it. I sent pictures each day so they could share in this experience with us. The staff took over the extra work, and the kids made things as easy for me as possible by keeping the art room clean, and making more cards for Larry. They prayed for healing, strength, and sent cards with well wishes. The Boys & Girls Club allowed me to work as I was able. Larry's job had always been there for us too. In the past they held his position open for his return but this time was different. Larry's stroke left him unable to return back to work. He was now disabled, and unable to hold a firearm or perform his duties as an officer of the court to the fullest extent. He was making progress with therapy, but would not recover fully to continue police work. This was the hardest part for him-not being able to work. He had spent most of his life working since he was 14 years old. He had spent six years in the Army National Guard, and then served the Maryland State Police as a Trooper for 27 years. He was a bailiff for the past eight years. He was a fighter, a father and a husband that always gave 120%. He was tough as nails.



Boys & Girls Club: Keeping Our Spirits Lifted

During this process Larry has encountered his share of trials and tribulations. He had to learn to let others

help him, and accept that being a man isn't about the outer strength, it's about the inner strength and what you can teach others. The members/kids at the BG Club have made great efforts in trying to raise awareness for cancer and especially MDS. This was the first experience for most of our kids in understanding what cancer can do to someone. They have great questions each week for Larry, and he was glad to answer them. This has helped a lot with his healing process because he gets to help the kids learn and they get to make him laugh. The kids have had great ideas to bring awareness to MDS, and try to help the best way they know how. They decided to make Larry's illness a front runner for our torch club fundraiser and community service events this year. They started by hosting a walkathon in October during breast cancer awareness month. They made bracelets, and sold them to help raise money for the cancer center Larry frequents each week. They have held a Hero Blood Drive and work hard to help get people to realize how important it is to donate blood. They used the holiday tree event that we decorate for our local Library each Christmas as a tribute to Larry, and others who have been battling MDS (Cancer). The ornaments were made by the kids by using the plastic caps from used vial bottles that contain medicine cancer patients. They also decided on multi colors to represent all different types of cancer. The tree helped raise \$18.00 that went towards a local family dealing with cancer. Larry and I both believe that because of letting the kids be a big part of his experience, sharing his thoughts and fears, his laughter and sometimes tears with them, that it has allowed them to open up more about their own fears, and know that life is what you choose to make it.

A True Test of Marriage

We both have come to realize that through all of this we have grown stronger as human beings, and as a couple. This has been one heck of a journey for both of us. We have come to realize that we can endure most anything together, and that we are not alone in this journey of life. God chose us to endure this together. To share our experiences with others and help those who need it along the way. We both know that the true meaning of marriage is ENDURANCE. If you can endure, you can stand together strong, and know that your love will outlast even the cancer.

We also found out who our true friends are, and relied on them sooooo often. Friends that have been there for us every step of every day. They gave us comfort when we needed it most. A place to live, played games, shared food, laughter, and a few tears along the way. They have been our

salvation! There is no doubt that God has been with us all this time. If we ever had doubt in the past, this experience certainly is a testament to His greatness. Bringing people in and out of our lives just at the right times, walking beside us, lying down with us, and carrying us in His loving arms when we just could not do anymore. God has touched us with His infinite wisdom, teaching us patience and giving us strength and for that we are truly grateful.

When I think back to the first day and seeing that lump, I am so grateful for that lump. People say God sends you signs, and God sent us a lump. The cancer was there but we didn't know that until the lump presented itself. It was that lump that opened our eyes, and brought us to where we are today. Together sharing 20+ years of marriage! Larry and I still have a long road ahead of us, and he is still amazing all the doctors a year and half later after the stroke and MDS diagnosis. We had bumps in the road and had to move in with my parents for awhile but just recently purchased a home again. This too was a miracle! We have learned not to question but just thankful for it. I am back working three days week at the club and the BG Club is still a great support for us. I hope our story helps those who think that hope, faith, miracles are not possible. Larry is LIVING proof that anything is possible when you have HOPE!





Nursing in MDS

International MDS Foundation Nurse Leadership Board

Erik Aerts, RN

Nurse Manager
University Hospital Zürich
Internal Medicine-Oncology
Stem Cell Transplantation Ward and
Polyclinic Hematology/Apherese/
Stem Cell Transplantation
Zürich, Switzerland

Louise Arnold, RN

Clinical Nurse Specialist
Department of Haematology
St James's Institute of Clinical Oncology
Leeds, United Kingdom

Angelika Bitter, RN

Universitätsklinikum Carl Gustav Carus Dresden, Germany

Claudia Boglione, RN

Stem Cell Transplantation Nurse Mentor University Hospital Careggi Florence, Italy

Núria Borràs, RN

Hemato-Oncology Nurse ICMHO Hospital Clinic Barcelona, Spain

Karen Campbell, BSc(Hons), RN, MN, PGcert

Macmillan Lecturer/Practitioner in Cancer Nursing Teaching Fellow Edinburgh Napier University Edinburgh, Scotland, United Kingdom

Debbie Carr, RN, Ba OH&S

Nursing Unit Manager Haematology Day Unit Calvary Mater Hospital Newcastle, Australia

Nicole Crisp, MN, NP

Nurse Practitioner, Hematology University of Alberta Hospital Edmonton, Alberta, Canada

Erin Demakos, RN, CCRN

Administrative Director
Myelodysplastic Disease Center
Icahn School of Medicine at Mount Sinai
New York, New York, United States

Corien Eeltink, RN, MA ANP

Nurse Practitioner
Department of Haematology
VU University Medical Center
Amsterdam, The Netherlands

Lenn Fechter, RN

Nurse Coordinator, Department of Hematology Stanford Hospital and Clinics Stanford, California, United States

Janet Hayden, RN, BSc(hons), MPH

Myeloid Clinical Nurse Specialist Haematological Medicine Kings College NHS Foundation Trust London, United Kingdom

Emily A. Knight, RN, BSN, OCN

Hematology Registered Nurse Coordinator Mayo Clinic Scottsdale, Arizona, United States

Sandra E. Kurtin, RN, MS, AOCN, ANP-C

Hematology/Oncology Nurse Practitioner
The University of Arizona Cancer Center
Adjunct Clinical Assistant Professor of Nursing
Clinical Assistant Professor of Medicine
University of Arizona
Tucson, Arizona, United States

Petra Lindroos Kolqvist, RN

Teamleader, Anemia Leukemia Team Department of Hemathology and Coagulation Sahlgrenska University Hospital Goteborg, Sweden

Arno Mank, RN

President EBMT Nurses Group European Group for Blood and Marrow Transplantation Nurse Researcher Academic Medical Centre Amsterdam, The Netherlands

Cindy Murray RN, MN, NP-adult

Malignant Hematology,
Princess Margaret Hospital
Clinical Appointee
University of Toronto,
Lawrence S. Bloomberg Faculty of Nursing
Toronto, Ontario, Canada

Phyllis Paterson, RN, RSCN, Dip Onc

MDS Clinical Nurse Specialist Cambridge University Hospitals NHS Foundation Trust Addenbrooke's Hospital Cambridge, United Kingdom

Jean A Ridgeway, MSN, APN, NP-C, AOCN

Leukemia/Stem Cell Transplant Nurse Practitioner University of Chicago Medical Center Department of Hematology Oncology Chicago, Illinois, United States

Jayshree Shah, APN-C, AOCN, RN, MSN, BSN, BS, CCRP

Nurse Practitioner
John Theurer Cancer Center
Hackensack University Medical Center
Hackensack, New Jersey, United States

Natalie Singer, MSc, RN,BSc(Hons)

Macmillan Haemato/Oncology CNS
The Beatson West of Scotland
Cancer Centre
Glasgow, Scotland, United Kingdom

Mary L. Thomas, RN, MS, AOCN

Hematology Clinical Nurse Specialist VA Palo Alto Health Care System Palo Alto, California, United States Associate Clinical Professor University of California, San Francisco San Francisco, California, United States

Sara M. Tinsley, ARNP, AOCN

Malignant Hematology Nurse Practitioner H. Lee Moffitt Cancer Center Tampa, Florida, United States



Would you like your treatment center to become part of the referral system for MDS patients and be designated as a Center of Excellence? To be recognized as a Center of Excellence, an institution must have the following:

- An established university (or equivalent) program
- Recognized morphologic expertise in MDS
- Available cytogenetics and/or molecular genetics
- Ongoing research, including Institutional Review
- Board—approved clinical trials

 Documentation of peer-reviewed publications in the field

Please contact the Foundation for further information and an application form for your center.

The following centers have qualified as MDS Centers of Excellence:

UNITED STATES

ARIZONA

Mayo Clinic Hospital

Scottsdale, Arizona Raoul Tibes. MD. PhD

The University of Arizona Cancer Center

Tucson, Arizona Ravi Krishnadasan, MD, FACP

CALIFORNIA

Cedars-Sinai Medical Center UCLA School of Medicine

Los Angeles, California H. Phillip Koeffler, MD

City of Hope National Medical Center

Duarte, California Stephen J. Forman, MD

Moores Cancer Center at the University of California, San Diego

Rafael Bejar, MD, PhD Peter Curtin, MD

Stanford University Medical Center

Stanford, California Peter L. Greenberg, MD

UCLA Center for Health Sciences

Los Angeles, California Gary J. Schiller, MD

University of Southern California Keck School of Medicine

Los Angeles, California Casey L. O'Connell, MD

FLORIDA

All Children's Hospital

St. Petersburg, Florida Gregory Hale, MD

Mayo Clinic

Jacksonville, Florida James M. Foran, MD Alvaro Moreno-Aspitia, MD

Sylvester Comprehensive Cancer Center

University of Miami Miller School of Medicine Miami, Florida Stephen D. Nimer, MD

University of Florida Shands Hospital

Gainesville, Florida Christopher R. Cogle, MD

University of South Florida H. Lee Moffitt Cancer Center

Tampa, Florida Alan F. List, MD

GEORGIA

Emory Winship Cancer Institute Emory University School of Medicine

Atlanta, Georgia

Amelia Langston, MD

The Blood and Marrow Transplant Program at Northside Hospital

Atlanta, Georgia

Asad Bashey, MD

ILLINOIS

Loyola University Chicago Cardinal Bernardin Cancer Center

Maywood, Illinois Scott E. Smith, MD, PhD

Robert H. Lurie Comprehensive Cancer Center of

Northwestern University Feinberg School of Medicine

Chicago, Illinois Olga Frankfurt, MD

Rush University Medical Center

Chicago, Illinois

Jamile Shammo, MD

University of Chicago Medical Center

Chicago, Illinois Richard A. Larson, MD

INDIANA

Indiana University Simon Cancer Center

Indianapolis, Indiana Larry Cripe, MD Hamid Sayar, MD, MS

MARYLAND

Johns Hopkins University School of Medicine

Baltimore, Maryland Steven D. Gore, MD

University of Maryland Greenebaum Cancer Center

Baltimore, Maryland Maria R. Baer, MD

MASSACHUSETTS

Children's Hospital Boston

Boston, Massachusetts Inga Hofmann, MD

Dana-Farber Cancer Institute

Boston, Massachusetts
Richard M. Stone, MD/David P. Steensma, MD

Tufts University School of Medicine Tufts Medical Center

Boston, Massachusetts Kellie Sprague, MD

MICHIGAN

Barbara Ann Karmanos Cancer Institute Wayne State University

Detroit, Michigan Charles A. Schiffer, MD

William Beaumont Hospital Cancer Center

Royal Oak, Michigan Ishmael Jaiyesimi, DO

MINNESOTA

Mayo Clinic

Rochester, Minnesota Mark R. Litzow, MD

University of Minnesota Medical Center

Fairview University of Minnesota Medical School

Minneapolis, Minnesota Erica D. Warlick, MD

MISSOURI

Washington University School of Medicine Siteman Cancer Center

St. Louis, Missouri John F. DiPersio, MD, PhD

NEBRASKA

University of Nebraska Medical Center

Omaha, Nebraska Lori Maness, MD

NEW JERSEY

32

The Cancer Center of Hackensack University Medical Center

Hackensack, New Jersey Stuart Goldberg, MD

NEW YORK

Albert Einstein College of Medicine Cancer Center

Bronx, New York

Amit Verma, MD

Columbia University Medical Center

New York, New York Azra Raza, MD

Memorial Sloan-Kettering Cancer Center

New York, New York Virginia M. Klimek, MD

Monter Cancer Center/ NSLIJ Cancer Institute

Lake Success, New York Steven L. Allen, MD

Icahn School of Medicine at Mount Sinai

New York, New York Lewis R. Silverman, MD

New York Medical College/ Westchester Medical Center Zalmen A. Arlin Cancer Center

Valhalla, New York Karen Seiter, MD

Roswell Park Cancer Center

Buffalo, New York *James E. Thompson, MD*

University of Rochester Medical Center

Rochester, New York Jane L. Liesveld, MD

Weill Medical College of Cornell University

New York Presbyterian Hospital New York, New York

Eric J. Feldman, MD NORTH CAROLINA

Duke University Medical Center

Durham, North Carolina Carlos M. deCastro, MD

Wake Forest University School of Medicine

Comprehensive Cancer Center

Winston-Salem, North Carolina Bayard L. Powell, MD

OHIO

Cleveland Clinic Foundation Taussig Cancer Center

Cleveland, Ohio Jaroslaw Maciejewski, MD, PhD

The Ohio State Comprehensive Cancer Center, James Cancer Hospital and Solove Research Institute

Columbus, Ohio

Alison R. Walker, MD

PENNSYLVANIA

The Western Pennsylvania Cancer Institute

Pittsburgh, Pennsylvania James M. Rossetti, DO

Thomas Jefferson University Kimmel Cancer Center

Philadelphia, Pennsylvania Emmanuel C. Besa, MD

University of Pennsylvania Cancer Center

Philadelphia, Pennsylvania Selina Luger, MD

TENNESSEE

Vanderbilt University Medical Center

Nashville, Tennessee Madan Jagasia, MD Stephen Strickland, MD

TEXAS

Cancer Care Centers of South Texas

San Antonio, Texas Roger Lyons, MD

Southwest Regional Cancer Center

Austin, Texas Richard Helmer, III, MD

University of Texas MD Anderson Cancer Center

Houston, Texas Guillermo Garcia-Manero, MD Hagop Kantarjian, MD

WASHINGTON

Fred Hutchinson Cancer Research Center University of Washington

Seattle Cancer Care Alliance Seattle, Washington

Joachim Deeg, MD/Elihu Estey, MD

WASHINGTON, DC

Georgetown University Hospital Lombardi Comprehensive Cancer Center

Washington, D.C. *Catherine Broome, MD*

WISCONSIN

Medical College of Wisconsin Bone Marrow Transplant Program

Milwaukee, Wisconsin Parameswaran Hari. MD

University of Wisconsin Madison Medical School

Madison, Wisconsin Mark B. Juckett, MD

OUTSIDE THE UNITED STATES

ARGENTINA

Sanatorio Sagrado del Corazón

Buenos Aires, Argentina Marcelo lastrebner, MD

ARMENIA

Muratsan University Hospital

Complex of Yerevan State Medical University Yerevan, Armenia Gevorg Tamamyan, MD

AUSTRALIA

Peter MacCallum Cancer Institute University of Melbourne

East Melbourne, Australia John F. Seymour, MD

University of Tasmania Royal Hobart Hospital

Hobart, Tasmania, Australia Raymond M. Lowenthal, MD

AUSTRI/

University Hospital of Innsbruck

Innsbruck, Austria
Reinhard Stauder. MD

Medical University of Vienna

Vienna, Austria Peter Valent, MD

BELGIUM

AZ Sint-Jan AV

Brugge, Belgium

Dominik Selleslag, MD

University Hospital Leuven

Leuven, Belgium Michel Delforge, MD, PhD

BRAZIL

AC Camargo Hospital -

Cancer Center

São Paulo, Brazil Luiz Fernando Lopes, MD, PhD

Hemocentro da UNICAMP

University of Campinas Campinas, Brazil Irene Lorand-Metze, MD

Servico de Hematologia do Hospital das Clinicas da Faculdade de Medicina

da Universidade de São Paulo São Paulo, Brazil *Elvira R.P. Velloso. MD. PhD*

Universidade Federal de Ceará

Ceará, Brazil

Silvia Maria M. Magalhães, MD, PhD

Universidade Federal de São Paulo

São Paulo, Brazil

Maria de Lourdes Chauffaille, MD, PhD

CANADA

Princess Margaret Hospital

Toronto, Ontario, Canada Karen Yee. MD

Toronto Sunnybrook Regional Cancer Centre

Toronto, Ontario, Canada *Richard A. Wells, MD*

University of Toronto Hospital for Sick Children

Toronto, Ontario, Canada *Yigal Dror, MD*

CHINA

Institute of Hematology and Blood Diseases Hospital Chinese Academy of Medical Sciences

Tianjin, China Zhijian Xiao, MD

CZECH REPUBLIC

Institute of Hematology & Blood Transfusion

Prague, Czech Republic Jaroslav Cermák, MD, PhD

DENMARK

Odense University Hospital The University of Southern Denmark

Odense, Denmark Gitte Birk Kerndrup, MD

Rigshospitalet National University Hospital

Copenhagen, Denmark Lars Kjeldsen, MD, PhD

University of Århus The University Hospital

Århus, Denmark Mette Skov Holm, MD, PhD

FRANCE

Centre Henri Becquerel Rouen University School of Medicine

Rouen, France Aspasia Stamatoullas, MD

Centre Hospitalier Universitaire (CHU) de Angers Service des Maladies du Sang

Angers, France Norbert Ifrah, MD

Centre Hospitalier Universitaire (CHU) de Grenoble

Grenoble, France

Jean-Yves Cahn, MD

Centre Hospitalier Universitaire (CHU) de Limoges Hôpital Dupuytren

Limoges, France Dominique Bordessoule, MD

Centre Hospitalier Universitaire (CHU) de Nancy

Nancy, France

Agnés Guerci-Bresler, MD, PhD

Centre Hospitalier Universitaire (CHU) de Tours Höpital Bretonneau

Tours, France

Emmanuel Gyan, MD, PhD

Hôpital Avicenne/University Paris XIII

Bobigny, France Pierre Fenaux, MD

Hôpital Cochin/University Paris V

Paris, France Francois Dreyfus, MD

Hôpital Saint Louis/University Paris VII

Paris, France

Christine Chomienne, MD, PhD

Hôpital Saint Vincent de Paul

Université Catholique de Lille Lille, France Christian Rose. MD

Institut Paoli-Calmettes

Marseille, France Norbert Vey, MD

Service des Maladies du Sang Hôpital Claude Huriez

Lille, France

Bruno Quesnel, MD

GERMANY

Georg-August-Universität Göttingen

Göttingen, Germany Detlef Haase, MD, PhD

Hannover Medical School Medizinische Hochschule Hannover

Hannover, Germany Arnold Ganser, MD

Heinrich-Heine Universität Düsseldorf University Hospital

Düsseldorf, Germany Ulrich Germing, MD

Johann Wolfgang Goethe Universität

Frankfurt Main, Germany Gesine Bug, MD

Klinikum Rechts der Isar Technical University of Munich

Munich, Germany
Katharina Götze. MD

MLL Münchner Leukämielabor

Munich, Germany
Torsten Haferlach, MD

St. Johannes Hospital Heinrich-Heine Universität

Duisburg, Germany Carlo Aul, MD, PhD

University of Heidelberg Medical Center, St. Lukas Klinik Solingen

Solingen, Germany *Ulrich Mahlknecht, MD, PhD*

Albert-Ludwigs-Universität Freiburg

Freiburg, Germany Michael Lübbert, MD, PhD

Universität Hamburg

Hamburg, Germany Nicolaus Kröger, MD, PhD

Universitätsklinikum Carl Gustav Carus

Dresden, Germany Uwe Platzbecker, MD

University Children's Hospital

Freiburg, Germany Charlotte Niemeyer, MD

University of Cologne

Cologne, Germany
Karl-Anton Kreuzer, MD

Universitätsklinikum Benjamin Franklin

Berlin, Germany Olaf Hopfer, MD

University Hospital Mannheim

Mannheim, Germany
Wolf-Karsten Hofmann, MD, PhD

GREECE

G. Papanikolaou General Hospital of Thessaloniki University of Thessaloniki

Thessaloniki, Greece Charikleia Kelaidi, MD

Patras University Hospital

Patras, Greece

Argiris Symeonidis, MD

University of Athens Laikon Hospital

Athens, Greece

Nora Viniou. MD

University General Hospital Attikon

Athens, Greece Vassiliki Pappa, MD

HUNGARY

Semmelweis University School of Medicine

Budapest, Hungary Judit Várkonyi, MD, PhD

INDIA

Tata Medical Centre

Kolkata, India

Col (Dr.) Deepak Kumar Mishra, MD

Tata Memorial Hospital

Mumbai, India Purvish Parikh, MD

IRELAND

Adelaide and Meath Hospital

Dublin, Ireland Helen Enright, MD

ISRAEL

Tel-Aviv Sourasky Medical Center

Tel-Aviv, Israel

Moshe Mittelman, MD

Chaim Sheba Medical Center

Tel Hashomer, Israel Drorit Grizim Merkel, MD

ITALY

Centro di Riferimento Oncologico di Basilicata (CROB)

Rionero in Vulture (PZ), Italy Pellegrino Musto, MD

Istituto di Ematologia

Universita' Cattolica Sacro Cuore

Roma, Italy

Giuseppe Leone, MD/Maria Teresa Voso, MD

University of Florence Azienda OSP Careggi

Florence, Italy Valeria Santini, MD

University of Pavia School of Medicine Fondazione IRCCS

Policlinico San Matteo

Pavia, Italy Mario Cazzola, MD

JAPAN

Kyoto University Hospital

Kyoto, Japan Akifumi Takaori. MD

Metropolitan Research Center for Blood Disorders

Shin-Yurigaoka General Hospital

Kanagawa, Japan Kiyoyuki Ogata, MD, FACP

Nagasaki University Hospital School of Medicine

Atomic Bomb Disease Institute

Nagasaki City, Japan Masao Tomonaga, MD

Saitama International Medical Center Saitama Medical University

Hidaka, Saitama, Japan *Akira Matsuda, MD*

Tokyo Medical College

Tokyo, Japan

Kazuma Ohyashiki, MD, PhD

KOREA

Catholic Blood and Marrow Transplantation Center

The Catholic University of Korea

Seoul, Korea Yoo-Jin Kim, MD

Seoul National University Hospital Seoul National University College of Medicine

Seoul, Korea

Dong Soon Lee, MD, PhD

THE NETHERLANDS

Radboud University Nijmegen Medical Centre

Nijmegen Centre of Molecular Life Sciences Nijmegen, The Netherlands *G.A. Huls. MD*

Vriie Universiteit Medical Center

Amsterdam, The Netherlands Gert J. Ossenkoppele, MD, PhD

POLAND

Jagiellonian University Collegium Medicum

Kraków, Poland Aleksander Skotnicki, MD, PhD

PORTUGAL

Hospital de Santa Maria

Lisbon, Portugal Joao F. Lacerda, MD

SAUDI ARABIA

King Faisal Specialist Hospital & Research Centre

Riyadh, Saudi Arabia Mahmoud Deeb Aliurf, MD

King Khaled University Hospital King Saud University

Riyadh, Saudi Arabia *Ak Almomen, MD*

SINGAPORE

Singapore General Hospital

Singapore Lay-Cheng Lim, MD

SOUTH AFRICA

University of Cape Town Groote Schuur Hospital

Cape Town, South Africa Nicolas Novitzky, MD, PhD

SPAIN

Hospital Universitario de Salamanca

Salamanca, Spain Consuelo del Cañizo, MD, PhD

Hospital Universitario La Fe

Valencia, Spain Miguel A. Sanz, MD, PhD

Hospital Universitario Vall d'Hebron Laboratorio

del Citologia-Citogénetica Barcelona, Spain

Maria Teresa Vallespi-Sole, MD, PhD

SWEDEN

Karolinska Institute at Karolinska University Hospital Huddinge

Stockholm, Sweden Eva Hellström-Lindberg, MD, PhD

SWITZERLAND

University Hospital Zurich

Zurich, Switzerland Bernhard Gerber, MD

TAIWAN

National Taiwan University Hospital

Taipei, Taiwan Hwei-Fang Tien, MD, PhD

THAILAND

King Chulalongkorn Memorial Hospital

Pathumwan, Bangkok, Thailand *Tanin Intragumtornchai, MD*

TUNISIA

Hospital Aziza Othmana

Tunis, Tunisia Balkis Meddeb, MD

TURKEY

Ankara University School of Medicine Hospital

Ankara, Turkey Osman Ilhan, MD

UKRAINE

Research Center for Radiation Medicine Kiev, Ukraine

Dimitry Bazyka, MD

UNITED KINGDOM

Aberdeen Royal Infirmary Aberdeen University School of Medicine

Foresterhill, Aberdeen, Scotland Dominic Culligan, MD

Addenbrooke's Hospital Cambridge University Hospitals

NHS Foundation TrustCambridge, United Kingdom *Alan J. Warren, PhD, FRCP, FRCPath*

King's College London & King's College Hospital

London, United Kingdom

Ghulam J. Mufti, DM, FRCP, FRCPath

Queen Elizabeth Hospital University Hospital Birmingham NHS Trust

Birmingham, United Kingdom Charles Craddock, MD

Radcliffe Hospitals and University of Oxford

Oxford, United Kingdom Paresh Vyas, MD

Royal Bournemouth Hospital

Bournemouth, United Kingdom Sallv Killick, MD

St. James's University Hospital St. James's Institute of Oncology

Leeds, United Kingdom David T. Bowen, MD

University Hospital of Wales

Cardiff, Wales Jonathan Kell, MD

Information on Clinical Trials

New Research Protocol Listing

NATIONAL CANCER INSTITUTE TRIALS

As we go to press the National Cancer Institute (NCI) has listed more than 100 clinical trials that focus on myelodysplastic syndromes. Full study information on these trials is available at www.cancer.gov. This information includes basic study information, study lead organizations, study sites, and contact information. To access the information:

- Log on to www.cancer.gov
- Click on "Search for Clinical Trials"
- Click on "Type of Cancer" and type in 'myelodysplastic syndromes'
- Hit search

This search will provide you with all the trials currently underway in MDS. You may also sort by trials that only focus on treatment or trials that only focus on supportive care.

To view listings of additional studies you can log onto www.clinicaltrials.gov. For telephone support, call the National Cancer Institute at 1-800-4-CANCER.

Announcing New Clinical Trials

NAME OF INSTITUTION:

Novartis Pharmaceuticals

TRIAL NUMBER: NCT00940602 Title of Trial or Description:

Myelodysplastic Syndromes (MDS) Event Free Survival With Iron Chelation Therapy Study (TELESTO)

A Multi-center, Randomized, Doubleblind, Placebo-controlled Clinical Trial of Deferasirox in Patients With Myelodysplastic Syndromes (Low/Int-1 Risk) and Transfusional Iron Overload

Currently Recruiting Participants.

The primary purpose of this study is to prospectively assess the efficacy and safety of iron chelation therapy with deferasirox compared to placebo in patients with myelodysplastic syndromes (low/int-1 risk) and transfusional iron overload.

Contact the Novartis Clinical Trials
Hotline at 800-340-6843 or go to
www.clinicaltrials.gov for additional
information and to view the active sites.

NAME OF INSTITUTION:

Celgene Corporation

TRIAL NUMBER: NCT01029262 Title of Trial or Description:

A Study of Lenalidomide Versus Placebo in Subjects With Transfusion Dependent Anemia in Low Risk Myelodysplastic Syndrome (MDS) Without Del 5Q (MDS-005)

Currently Recruiting Participants.

The primary purpose of this study is to compare the efficacy of Lenalidomide (Revlimid®) versus placebo in achieving red blood cell transfusion independence in the overall study population and in a pre-specified subgroup of patients with an erythroid differentiation gene expression signature predictive of Lenalidomide response.

Access
www.clinicaltrials.gov
for additional information.

MDS FOUNDATION STORE

NEW MDS AWARENESS ITEMS AVAILABLE!

New MDS awareness items are now available through our online store and our popular Hope for MDS wristbands are still available. Have you told someone about the MDS Foundation recently? Help promote MDS awareness any way you can and purchase your items today! For a donation of your choice, receive your custom item(s) as a "Thank You" for your generosity.



3 WAYS TO ORDER:

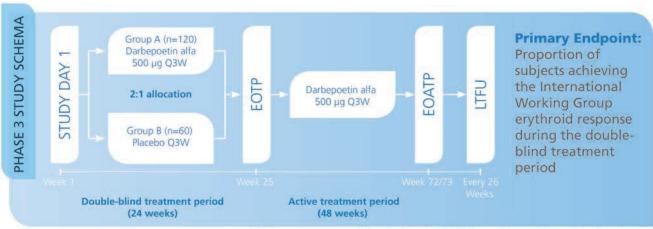
- 1. **ONLINE** ► CLICK to SHOP ► http://www.mds-foundation.org/merchandise/
- 2. **BY PHONE** with credit card at 800-MDS(637)-0839
- BY MAIL with check enclosed to: The MDS Foundation, Inc. 4573 South Broad Street Suite 150 Yardville, NJ 08620

Raising awareness is a year-round job! Thank you for your support. Clinicaltrial.gov Identifier: NCT01362140

Recruiting Investigators



A Multicenter, Randomised, Double-blind, Placebo-Controlled Study of Darbepoetin Alfa for the Treatment of Anaemic Subjects With Low or IntermeDiate-1 Risk MyElodysplastic Syndrome (MDS)



LTFU contacts occur every 26 weeks following EOATP for a minimum of 3 years from first dose of IP

KEY INCLUSION CRITERIA

- ✓ Age ≥18 years with low or intermediate-1 risk (IPSS) MDS
- WHO classification of RA, RARS, RCMD, MDS-U, MDS with isolated del(5q), RAEB-1
- ✓ Hb ≤10 g/dL
- ✓ ECOG PS = 0 or 1

Y EXCLUSION CRITERIA

- **X** Evidence of bone marrow collagen fibrosis
- ★ High transfusion demand (≥4 units of RBC transfusion during either of 2 consecutive 8-week periods prior to randomisation)
- X Previous or ongoing use of ESA therapy
- Previous or planned use of biologic response modifiers to treat MDS during double-blind treatment period

For information on study participation and recruitment, go to www.amgenoncology.com for your local Amgen Medical Information Contact

ECOG PS – Eastern Cooperative Oncology Group Performance Score; EOATP – End of Active Treatment Period; EOTP – End of Treatment Period; IPSS – International Prognostic Scoring System; LTFU – Long-term Follow-up; Q3W – dosing every 3 weeks; WHO – World Health Organisation

Darbepoetin alfa is not approved for the use in patients with myelodysplastic syndromes (MDS) by the FDA, EMA and other local regulatory authorities. This information should not be construed as a recommendation for use of any product for unapproved uses.



© 2013 Amgen Inc. All rights reserved. AO-IHQ-AMG-079-2013- March-NP

Contributions to the MDS Foundation

Thank You!

Gifts to the Foundation

The MDS Foundation relies entirely on gifts and membership fees to further its work. We would like to acknowledge the generosity of the following individuals and organizations that have recently provided gifts to the Foundation:

Charles M. McClellan

Marietta, GA

Nadine Molloy

South Portland, ME

V.R. "Spin" Nelson

Lakewood, CO

Larry Marler, Emory, TX

Marjourie L. Mann

Washburn, MO

Robert A. Strahl

Encinitas, CA

Tom and Joanne Kubiak

Centennial, CO

Helen Havens. Napa. CA

Kevin J. Lawlor

Warrington, PA

Timothy M. Brown

Wayne, PA

Yilmaz Hassan, Howell, NJ

John F. Maguire III

Philadelphia, PA

Becky L. Goodwin

New Castle, DE

Clyde F. Bowie Jr.

Mechanicsville, VA

David and Mary Jane West

Santa Clarita, CA

Marilyn Keskey

Glendale, CA

John Kaye, Denman

New South Wales

Audrie Lawless

Tinley Park IL

David and Joan Gardner

Sarasota, FL

Nancy Gabriel, Micanopy, FL

Claire-Elizabeth Sloan

Portland, OR

Tracey L. Hill

Adel Ziady

Tucson, AZ

Richard W. Arnott

Rensselaer, IN

Annie Roberts

Gainesville. FL

Morris Storck

Tarrytown, NY

Maura C. Williams

Lansdowne, PA

Arlene Johnson

Novi. MI

Joe Artuso, Berwyn, PA

Martina Wiedmayer

Collegeville, PA

Rosemary Pauer

Brampton, Ontario, Canada

Mandy Ellis

Oswestry, Shropshire, UK

Joseph and Sally Costa

Sleepy Hollow, NY

Emily Rubinstein

Winter Park, FL

Edward Blodnick

Garden City, NY

Kent Bachmann

Frederick Jaffke

Sara Fusco, Lake Grove, NY

Lorraine B. Gleixner

Greenwood, IN

Ina Block

Napa, CA

Darren Kawahara

Ontario, CANADA

Jean Ellis

Montclair, NJ

Lawrence Klapow

San Jose, CA

Judy DeWeese

San Antonio, TX

Ron and Helen Vanskiver

Pullman, WV

Henrietta Mariak

Middlesex, NJ

Judith (Bunny) Nickamin

Scottsdale, AZ

Dan and Andrea Reese

Cataula, GA

Jim Leonard

Ocala, FL

Charles McMurtrey

Montgomery, AL

Jerry A. Theiler

Stockton, CA

Nicholas and Elvira Olmo

Modesto, CA

Edward and Carol Allgeier

Erie. PA

Damian J. Hillseth

Pasadena, CA

Rob Sennott

Sandwich, MA

John and Tracy Janevic

Ann Arbor, MI

Allison Myslinski

Maryland Heights, MI

Betty Jo Vail, Lititz, PA

Lorenzo and Filomena Diurno

Wilton, CT

Deborah Brown

West Chester, OH

Mark Lasher, Boca Raton, FL

Andrew O. Feuerstein

Brooklyn, NY

Carlo and Rose Robustellini

Lodi, NJ

Ralph Hamaker

Penfield, NY

Winifred Kryda

Walnut Creek, CA

Florence M. Morris

San Francisco, CA

Jalil Fardanesh

Folsom, CA

Michael R. Tyson

Forth Worth, TX

Andrew and Roberta Glasgow

West Palm Beach, FL

Lawrence Haberman

Boca Raton, FL

Matthew and Sherry Warshauer

Sarasota, FL

Julie Hutchinson

Kirkland, WA

Stephen D. Nimer

Miami Beach, FL

Nancy Mostek

Finlayson, MN

Janice Cook

Columbus, OH

Maria Mau

Mt. Prospect, IL

Frederick Jaffke

Audrey Coykendall

Audies Coskelle

Fredonia, NY

Michael and Sharon Tier

Conshohocken, PA

Randi Helsel

San Diego, CA

Phyllis Simons

Natick, MA

Rebecca Lynn Reed Demori

Central, CA

Evamarie Matalonis

Dousman, WI

James B. Harris

Barrie, Ontario, CANADA

Richard Osborne

Kingwood, TX

Betty Jane Mincemoyer

State College, PA

Jim and Laila Finnen

Hernando, FL

Vivian Wyatt

Altamonte Springs, FL

Craig and Janet Scruggs

Jackson, AL

Paul and Jennifer Jansen

Chapel Hill, NC

Sarah P. Bowerman

Raleigh, NC

Barry F. Johnson

Dallas, TX

Bob and Kathy Rutter

Independence, OH

Henry & Marilyn Taub Foundation

Teaneck, NJ

Peter L. Greenberg, MD

Woodside, CA

Leonard A. Jewler

Washington, DC

Frederick Burns

Vero Beach, FL

John Amaral, Melrose, MA

Rocco LoPiccolo

Auburn, NY

Lisa Winnert

Valley Village, CA

Gerry Meyer

Great Falls, MT

Barry Spaulding, Osprey, FL

Susan Elliott

Wilmington, DE

Linda Weiss

Philadelphia, PA

Dorothy Marson

Jupiter, FL

Judy Traister

Centerville, WA

Alan List, MD

Tampa, FL

James Matthews

Tucson, AZ

Robert Weinberg

Wynnewood, PA

Nancy, Brian and Tara Madden

Cortlandt Manor, NY

Pat Thompson

Philadelphia, PA

Suzanne Pierson

Branford, CT

Mike Tersolo, Carlsbad, CA

Linda Welker

Upper Sandusky, OH

Michael Boxer

Tucson, AZ

Gordon Hallerman

Westbury, NY

James Wallace Jr.

Jamaica, NY

Max Atwell

Tucson, AZ

Marlene Florkowski

Farmington Hills, MI

W. Brian and Charlotte M. Keegan

Ellicott City, MD

Marvin Williams

Springfield, MO

Lyle Jordan

Beaverton, OR

J. Scott Carter

Graeagle, CA

Carol Holman

San Diego, CA

Tina Selinsky, Bradenton, FL

In Memoriam

Yick C. Dong

Augusta, GA

Mark Maimone

Huntington Station, NY

Peter Finiello, Jamaica, NY

Claire-Elizabeth Sloan

Tracey L. Hill

Glenn Forney, Dallas, TX

Bob and Barbara Wolfe

Ringoes, NJ

Thomas Benoit

Falmouth, MA

Kathy Specht

Derwood, MD

Norris Steven Jordan

Colorado Springs, CO

Joe Artuso

Berwyn, PA

Ann McAllister

Marion, OH

Aline Dune, Plano, TX

Kim Hemond

Pawtucket, RI

Denny Oakleaf, Wooster, OH

John M., Sawver, Jr.

Medina, NY

Megan Becer

Ligonier, PA

Juan Amador, APO, AP

John U. Harris, Jr.

Weston, MA

David and Carol Usher

Colchester, VT

Heinrich M. Gebhard

Sacramento, CA

Matt Warshauer

Sarasota, FL

William M. Pearson

Hamilton, Ontario, Canada

Nicholas M. Olmo

Modesto, CA

A memorial fund has been established in the name of Mrs. Ruth Abelson

Donations have been made in Mrs. Abelson's memory by:

Acres Group, Wauconda, IL Ted Jadwin and Ellen Morris

Chicago, IL

Donnie and Donna Rappin Wilmette, IL

Property Specialists, Inc. Rolling Meadows, IL

Castle Rock

Homeowners Association Rolling Meadow, IL

A memorial fund has been established in the name of Mrs. Linda Alves

Donations have been made in Mrs. Alves' memory by:

Ed and Mary Cook, Gilroy, CA

A memorial fund has been established in the name of Mr. Bobby Ammons, Sr.

Donations have been made in Mr. Ammons' memory by:

Bobby Ammons, Welaka, FL

A memorial fund has been established in the name of Mrs. Emelia Artime

Donations have been made in Mrs. Artime's memory by:

Turner Broadcasting Systems, Inc., Atlanta, GA

A memorial fund has been established in the name of Mr. George J. Balint

Donations have been made in Mr. Balint's memory by:

Ken and Peg Proctor Christine Dry-Henich Tierra Verde, FL Denver, CO

Frank and Pat Howe, Bucklingham, VA

A memorial fund has been established in the name of Mrs. Love Pope Balkwill

Donations have been made in Mrs. Balkwill's memory by:

Diane Petroni-Newhouse Tom and Christine Page San Jose, CA San Jose, CA Dr. and Mrs. William Belanger, Monterey, CA

A memorial fund has been established in the name of Mrs. Barbara Ann Baldwin

Donations have been made in Mrs. Baldwin's memory by:

John and Cindy Baldwin Larry Baldwin, Plano, TX Atlanta, GA Citibank, BCQC Unit Robyn Roskydoll, Keller, TX San Antonio, TX Basilio, Maria, Basilio, Anthony Eugene Hawkins & Lynne Kypuros, Lakeway, TX Live Oak, TX

A memorial fund has been established in the name of Mrs. Joan R. Barber

Donations have been made in Mrs. Barber's memory by:

John Jackson Land O Lakes, FL Stanley and Norma Ordon Helen J. Allen Schenectady, NY Amy Lauterbach Pokomy John and Donna Cullam Berne, NY Altamont, NY

Umberto and Mary Cavalieri Schenectady, NY

Harry & Marion Worthington Forestport, NY

Ross and Marcia Moody Schenectady, NY

Robert & Barbara Tallman Altamont NY

Schenectady, NY

Robert & Sharon Kemmer

Delanson, NY Howenstein & Carr Families Schenectady, NY

Kyle Piedmont Schenectady, NY A memorial fund has been established in the name of

Mr. John L. Barnhart, Jr. Donations have been made in Mr. Barnhart's memory by:

William Woodford and Staff, Charles & Woodford, LLC

Attorneys At Law, Baltimore, MD Don Brooker, Westerville, OH

A memorial fund has been established in the name of Mr. Richard William Barnett

Donations have been made in Mr. Barnett's memory by:

Curtis and Lauri Bussell Key Electronics, Inc. Lake Orion, MI Wixom, MI Bob and Bonnie Redmond Janet Doty Dearborn Heights, MI Trov MI

A memorial fund has been established in the name of

Robbie and Tabitha Crawford, Willis, MI

Mr. David Bartikofsky Donations have been made in Mr. Bartikofsky's memory by:

Maurice Bartikofsky Janet Cherkasky Philadelphia, PA Rochester, NY Peggy Cherkasky & George Adler, Pittsford, NY

A memorial fund has been established in the name of Ms. Dorothy Bayer

Donations have been made in Ms. Bayer's memory by:

David L. Bayer, Bourbonnais, IL

A memorial fund has been established in the name of Mr. Alfred Benavente

Donations have been made in Mr. Benavente's memory by: Aaron Shoal, San Diego, CA Albert Ju, San Diego, CA

A memorial fund has been established in the name of Mr. Wayne J. Bender

Donations have been made in Mr. Bender's memory by: Patricia Bender, Venice, FL

A memorial fund has been established in the name of

Mr. Craig Linton Bexley Donations have been made in Mr. Bexley's memory by:

Hamilton and Jodi Hunt Leon H. Cannon

Tampa, FL Land O Lakes, FL Envirodev Properties, LLC Michael & Jean Shahnasarian

Lithia, FL Tampa, FL Rick and Julie Bannon Susan Lightbody, Ocala, FL Saint Petersburg, FL

Miramar Beach, FL A.G. Divers, Tampa, FL Rickey and Angela Rollison

Dan and Patricia Scupin

Oxford, FL The Bank of Tampa. Tampa. FL

Charles and Cecelia Lane Tampa, Fl.

Jackie Gardner and Jonathan Orebaugh Tampa, FL

E.R. and Jane Bourkard

Tampa, FL Sebring, Sierra, Tampa, FL Broyles, Rooks & Johnson, CPA's, P.A. Tampa, FL

Steve, Pat and Ben Busch

Land O Lakes, FL

Bryan L. Baldwin

Mary Kate Bexley

Land O Lakes, FL

The Roy Brooks Family

Brandon, FL

Lutz. FL

Brvan L. Baldwin, Eric Hull. Meralex Farm

Brandon, FL

A memorial fund has been established in the name of Mrs. Loydene Beaubien

Donations have been made in Mrs. Beaubien's memory by:

The Loretz Family Ron and Linda Borgman Los Altos, CA Monterey, CA Patrick Cairns James A. Hanlon Margaret Beaubien Monterey, CA and Family David Milligan Alexandria, VA Lake Forest, IL John and Carol Stornetta Ed and Barbara Battey Monterey, CA Palm City, FL Peter and Charlene Boulais Richard A. Ungaretti Pebble Beach, CA Chicago, IL Andrew Ghertner Sandra C. Storm Atlanta, GA Monterev. CA Carol Swartz John B. Coppedge III Monterev. CA Wadmalaw Island, SC Jerry and Esta Holden Dawn Satow Carmel, CA Livermore, CA Steve and Chris Goldner Paul and Pamela Boneham Los Altos Hills, CA Kenilworth II Sid and Merv Dorr Specifically Equine Monterey, CA Veterinary Service O.B. Upton III Buellton, CA La Quinta, CA Kellie Weaver Tom Usher Fresno, CA

Portland, OR Kenneth and Nancy Walker Bonnie Carson Chicago, IL

Alexandria, VA Bob and Mary Cushing Dave Lawton Carmel, CA Jim and Margo Tann South Bay Development Salinas, CA Campbell, CA

A memorial fund has been established in the name of Mr. Wavne Vincent Black

Donations have been made in Mr. Black's memory by:

Dona Sue Black Cool Richard and Beverly Dietz Columbia, MO Alexandria VA

A memorial fund has been established in the name of Mrs. Vivian Blackshear

Donations have been made in Mrs. Blackshear's memory by: Suzanne Muterspaugh, Sumter, SC

A memorial fund has been established in the name of Dr. Harry Blecker

Donations have been made in Dr. Blecker's memory by:

Herman and Elaine Blecker Feasterville PA

A memorial fund has been established in the name of Mr. Robert Blumenthal

Donations have been made in Mr. Blumenthal's memory by: Albert and Tina Small Bethesda, MD

A memorial fund has been established in the name of Mr. William Bogaty

Donations have been made in Mr. Bogaty's memory by:

Vanda High Robert High New York, NY New York, NY

A memorial fund has been established in the name of Mrs. Sandra Lynn "Sandy" Bolar

Donations have been made in Mrs. Bolar's memory by:

Creq Ostler and Hank and Nancy Trujillo The Stoker Ostler Team Colorado Springs, CO Scottsdale, A7 Robert and Norma James Ed and Judy Jones Montgomery, TX Blue Springs, MO Mark and Cathy Frame, Tim & Katie Jones & Family Tim and David McMullen and Andy Prentice Parker, CO Prairie Village, KS Todd Jones Chicago, IL Margaret McCormick Phoenix, AZ John and Carolyn Reece Lees Summit, MO David and Sandra Roy Flower Mound, TX Maryann Shores Savannah, MO Young and Moon Kahn Scottsdale A7 Alan and Loretta Phares Wichita, KS Ronald & Patricia Severson Panama. NE Don and Marilyn Henry Marvin Scholl and Nacogdoches, TX Angela K. Schmohr L.W. and Marilyn Crites Lincoln, NE Wichita, KS Larry Bolar Ron and Marty Kixmiller Vallejo, CA Rock Valley, IA

Dr. and Mrs. Ross and Sandra Padgham Wichita, KS

Larry and Jenn Miller & Family

Sun Lakes A7

A memorial fund has been established in the name of Mrs. Ruth Borchardt

Rosemary L. Thurston

Valleio. CA

Donations have been made in Mrs. Borchardt's memory by:

John and Barbara Borchardt John and Carol Rayer Blair, NE Valley, NE L.D. and Helen Rasmussen Bode and Evelyn Labode Omaha. NE Omaha. NE

David & Pamela Schlotthauer Marcia Clark

Omaha, NE Omaha, NE

Michael and Cynthia Troy Michael & Patricia Kojdecki Eagan, MN Valley, NE

James and Linda Dunn Children's of MN Professional Staff, St. Paul, MN Bismarck ND

A memorial fund has been established in the name of Mr. John Bornancin

Donations have been made in Mr. Bornancin's memory by: Linda Thomas, Berea, OH

A memorial fund has been established in the name of **Dr. Terry Bosworth**

Donations have been made in Dr. Bosworth's memory by: Lynn Cavanaugh, Canton, CT

A memorial fund has been established in the name of Mr. Joe Boyd

Donations have been made in Mr. Boyd's memory by: Karen Boyd, St. Louis, MO

A memorial fund has been established in the name of Mr. Edwin Ralph Braden

Donations have been made in Mr. Braden's memory by: Ray and Laura Kass, Prescott, AZ

A memorial fund has been established in the name of

Ms. Harriet Brenner

Donations have been made in Ms. Brenner's memory by:

Betty H. Hatchell Jay and Phyllis Horton Columbia, SC Salem, SC

Kevin Haddigan Mac & Barbara Christopher Mt. Pleasant, SC Greenville, SC

B-Tach, LLC Ruth Livadariu Eatontown, NJ Simpsonville, SC Bruce and Pam Stemerman The Muhler Company Potomac, MD North Charleston, SC

Russ Pritchard Helen Burns Charleston SC Mill Hill, London Birdie Donner Christopher Kearney Greenville, SC Charlotte NC

Ellen S. Kier Len and Eileen Kaufman New York, NY Boca Raton, FL Barbara Schwartz Reynolds Investment Management Inc. Mason OH Greenville, SC Peter and Susan Braverman

Ned and Ellen Dorman New York, NY Jericho NY Nedene Greer

Greenville, SC Michael and Glenda Webb Simpsonville, SC Russell and Betty Hitt

Falls Church, VA

A memorial fund has been established in the name of Mr. Robert Jay Alan Brody

Donations have been made in Mr. Brody's memory by:

The Dritz Family Cathy Kominsky Scottsdale, AZ Northbrook, IL

Joanne Moffic Silver Chicago, IL

A memorial fund has been established in the name of Mr. Bill Burns

Donations have been made in Mr. Burns' memory by:

C-SPAN Marketing & Friends Washington, DC

A memorial fund has been established in the name of Mr. Edward Capaldo

Donations have been made in Mr. Capaldo's memory by: Emily Cartmell, Pennsburg, PA

A memorial fund has been established in the name of Mr. Larry Cardonick

Donations have been made in Mr. Cardonick's memory by:

Janet Wiener Jerry and Renee Green Boynton Beach, FL Boynton Beach, FL

A memorial fund has been established in the name of Mr. Robert W. Carmichael

Donations have been made in Mr. Carmichael's memory by: Chervl Carmichael

A memorial fund has been established in the name of Mr. Roy C. Carter

Donations have been made in Mr. Carter's memory by:

Abbie C. Carter Philadelphia, PA

A memorial fund has been established in the name of Ms. Sarah T. Cecil

Donations have been made in Ms. Cecil's memory by: Mrs. Robert Leake, Fort Thomas, KY

A memorial fund has been established in the name of Mrs. Sharron Helen Chandler

Donations have been made in Mrs. Chandler's memory by: Arne Chandler, Murrieta, CA

A memorial fund has been established in the name of Mr. Keming Chao

Donations have been made in Mr. Chao's memory by: Highland Park Library, Dallas, TX

A memorial fund has been established in the name of **Dr. Frederick Cook**

Donations have been made in Dr. Cook's memory by: Page L. Wingfield, Goldsboro, NC

A memorial fund has been established in the name of Ms. Tokiyo Ann Corcoran

Donations have been made in Ms. Corcoran's memory by:

Barbara Trokan Daniel & Jeanne Sweeney Basking Ridge, NJ Arlington, VA Patricia C. Miller Joseph Frommelt Berlin, NJ Budd Lake, NJ

A memorial fund has been established in the name of Mr. Robert "Bob" D'Angelo

Donations have been made in Mr. D'Angelo's memory by:

Stu MacCatherine Gerald and Marilynn Couse Elizaville, NY North Haven, CT Gerald Brown, Kingston, NY Dianne, Ken, Kristen & Andv Paulson, Stone Ridge, NY John and Joann Deforest Cottekill, NY Tisha Stoutenburg Salem, NH Janet Kayarian Clinton Corners, NY Gregory Worthen Chelmsford, MA Robert Pietrobono LaGrangeville, NY Mr. and Mrs. Paul Valanti Thornwood, NY Mark and Eileen St James Hebron, CT Richard & Diana Fodrowski Stone Ridge, NY The National Association of Kevin and Annette Sullivan Nurse Practitioners in Women's Health Beacon, NY Washington, DC Winchester Financial Group Chuck and Michele Mueller Inc. Stoneham MA Ridgefield, CT Doreen, Ed. Eric and Donna Brady, Kingston, NY Allie Shulman, Glen Allen, VA

A memorial fund has been established in the name of Ms. Margaret "Peg" Titus Dekker

Dr. and Mrs. Al Gruner

Hurley, NY

Debbie, Jimmy, Jeremy Smiseth

Stone Ridge, NY

Donations have been made in Ms. Dekker's memory by: Melis Ertek, Los Angeles, CA

A memorial fund has been established in the name of Mr. Jon David duBois

Donations have been made in Mr. duBois' memory by: Ron and Thora duBois, Stillwater, OK

A memorial fund has been established in the name of Mr. Robert DuFore

Donations have been made in Mr. DuFore's memory by: Marguerite DuFore, San Mateo, CA

A memorial fund has been established in the name of Mr. Alessandro Degl'Innocenti

Donations have been made in Mr. Degl'Innocenti's memory by: Roberto Degl'Innocenti, Miami, FL

A memorial fund has been established in the name of Mrs. Helen Denton

Donations have been made in Mrs. Denton's memory by: The Denton Family, Anchorage, AK

A memorial fund has been established in the name of Mr. William Robert DiScipio Sr.

Donations have been made in Mr. DiScipio's memory by:

Jim and Judy Sellers Elsie Jamgochian Lynnfield, MA Arlington, MA George Dunn and Family Michael, Janis, Lynn, MA Andrea DiScipio Groton, MA Leda Barr, Lynn, MA

A memorial fund has been established in the name of Mr. Marion Dotson

Donations have been made in Mr. Dotson's memory by: Doris Welsh, Barnesville, OH

A memorial fund has been established in the name of Mr. Robert M. Drach, Sr.

Donations have been made in Mr. Drach's memory by: Elizabeth Drach, Crown Point, IN

A memorial fund has been established in the name of Mr. Carl Duncan

Donations have been made in Mr. Duncan's memory by:

Steve and Donna Knight Sherman Chao Cincinnati, OH Indian Head Park, IL Don Kruse Benton and Lucille Dexter Cincinnati, OH Palm Desert, CA

A memorial fund has been established in the name of Mr. Genevieve "Dolly" Dyson

Donations have been made in Mr. Dyson's memory by:

The Pritchett Family Worley & Cynthia Umbarger Forest Hill, MD Churchville, MD Mr. & Mrs. Edward Schroeder Phil and Janet Hauck Bel Air. MD Forest Hill MD

A memorial fund has been established in the name of Ms. Sharon Ehleringer

Donations have been made in Ms. Ehleringer's memory by: Jeff Ehleringer, Lino Lakes, MN

A memorial fund has been established in the name of Mr. Robert H. Eidd

Donations have been made in Mr. Eidd's memory by: Texas Court Reporters Association, Athens, TX

A memorial fund has been established in the name of Mr. Allen S. Eisner

Donations have been made in Mr. Eisner's memory by: Barbara Townley, Chicago, IL

A memorial fund has been established in the name of Mr. Andreas Fokas

Donations have been made in Mr. Fokas' memory by: Ekaterini Fokas, Astoria, NY

A memorial fund has been established in the name of Mrs. Evelyn Forney

Donations have been made in Mrs. Forney's memory by: Forest Park Women's Club, Cincinnati, OH

A memorial fund has been established in the name of Mrs. Donna Francis

Donations have been made in Mrs. Francis' memory by: Dale and Vickie Trott, Lenexa, KS

A memorial fund has been established in the name of Mr. James W. Freid

Donations have been made in Mr. Frejd's memory by:

Rich and Jill Myers Bill and Jess Geanconteri Lemont. IL Lake in the Hills. IL Elaine Atristain, Elmhurst, IL Joslyn Anderson Markesan, WI Walter Joniec Eliseo Villarreal Schaumburg, IL Chicago, IL Mariano & Janice Geanconteri Streamwood, IL James and Arlene Goding Sawver MI

The Valenzo Family Dick and Suzanne Pottker Elk Grove Village, IL Elgin, IL

The Daniels Family Ken Spaeth and Elk Grove Village, IL Commercial South Team Bill and Jess Geanconteri Yorkville, II Lake in the Hills II John Fitzgerald Mariano & Janice Geanconteri Flk Grove. IL Streamwood II Suzanne Hausch The Valenzo Family Elk Grove Village, IL Elk Grove Village, IL Mark and Janet Mason The Daniels Family Libertyville, IL Elk Grove Village, IL

A memorial fund has been established in the name of Mrs. Joan Frejd

Donations have been made in Mrs. Frejd's memory by:

Gene and Gaile Borchart Joslyn Anderson Markesan, WI John Fitzgerald Elk Grove, IL Arlene Goding, Sawyer, MI Suzanne Hausch Mr. and Mrs. Jack Dahlquist Elk Grove Village, IL Norridge, IL Ken Spaeth & Commercial Chuck Brehm, Morris, IL South Team, Yorkville, IL The Samborski Family Susan Shallcross Hanover Park, IL Elk Grove, IL Cindy Maechtle, St. Charles, IL John and Paula Ford George and Christine Baunach Elk Grove Village, IL Elk Grove Village, IL Barbara Ford

Elk Grove Village, IL

Libertyville, IL

Mark and Janet Mason

Kristen Schlaff, Chicago, IL

Bob & Jan Jacobs & Family

Muskegon, MI

41

A memorial fund has been established in the name of

Mr. Herbert G. Frey

Donations have been made in Mr. Frey's memory by:

Elizabeth Frey John Frey Freehold, NJ Allentown, PA Robert, Sara, Jessica Frey, Pittsburgh, PA

A memorial fund has been established in the name of **Ms. Elaine Frye**

Donations have been made in Ms. Frye's memory by: James E. Frye, Palestine, TX

A memorial fund has been established in the name of Mr Laurence F Gard

Donations have been made in Mr. Gard's memory by: David Gard, Lansing, MI

A memorial fund has been established in the name of Mr. Alfred A. Gianni

Donations have been made in Mr. Gianni's memory by: Warren Robins. Montclair. NJ

A memorial fund has been established in the name of Mr. Irving Glickman

Donations have been made in Mr. Glickman's memory by: Geoffrey and Sandy Goldworm Jupiter, FL

A memorial fund has been established in the name of Mr. Joseph Scott Green

Donations have been made in Mr. Green's memory by: Bean O'Donnell, III, St. Louis, MO

A memorial fund has been established in the name of Mrs. Craig Jackson Grover

Donations have been made in Mrs. Grover's memory by: Southwest Research Institute San Antonio, TX

A memorial fund has been established in the name of Mr. Jack Groves

Donations have been made in Mr. Groves' memory by: Bonnie Groves, Hernando, FL

A memorial fund has been established in the name of Mrs. Ann Leslie Cosenza Hallberg

Donations have been made in Mrs. Hallberg's memory by: Drew Cucuzza, New Haven, CT

A memorial fund has been established in the name of Mr. Philip Dee Hayward

Donations have been made in Mr. Hayward's memory by:

Vestals. Mansfield, TX Keith and Joann Carlson Ankeny, IA Dillon. Kimba and Hattie Vestal Keller, TX Coppell Middle School West Coppell, TX Ray Huhn, Pearland, TX Andy and Karen Webster Wed Night Poker Group

Pearland, TX Totus Solutions Harry and Margaret Shank

Arlington, TX

Carrollton, TX Arlington, TX John and Carol Kubala Sarah Symecko Arlington, TX Pearland, TX Gary Hatch, Arlington, TX

A memorial fund has been established in the name of Mr. James John Harasty

Donations have been made in Mr. Harasty's memory by: Amy Feinstein, Roswell, GA

A memorial fund has been established in the name of Mr. Martin Heiss

Donations have been made in Mr. Heiss' memory by: Robert and Ellen Busch, East Meadow, NY

A memorial fund has been established in the name of Mr. Thomas Hennig

Donations have been made in Mr. Hennig's memory by:

Keith and Mary hennig Joseph and Jane Decker Evansville, WI Evansville, WI David and Simone Jeans Randall and Patricia Peters Evansville, WI Evansville, WI Michael and Arthur and Karla Camm Sandra Prochaska Evansville, WI Stewartville, MN Stephen & Kathleen Ver Jason and Daria O'Connor Kuilen Evansville, WI Evansville, WI Christopher & Denise Eager James and Amy McNett Evansville, WI Evansville, WI Laura Batzer Keith and Michelle Frey Milwaukee, WI Evansville, WI Thomas and Lynn Olson Carl V. Korfmacher

A memorial fund has been established in the name of Mr. Louis Mario Hocker

Fvansville WI

Donations have been made in Mr. Hocker's memory by:

Evansville, WI

Kathleen Brinza Michael & Barbara Sbrocca Novi, MI Birmingham, MI

A memorial fund has been established in the name of Mrs. Elma Lorraine Huggins

Donations have been made in Mrs. Huggins' memory by: The Flournoy Companies Christopher Boggs Columbus GA Richmond VA

A memorial fund has been established in the name of Ms. Miriam Hvams' Brother

Donations have been made by: Howard and Diane Weinreich, New York, NY

A memorial fund has been established in the name of Mr. Angelo Incorvia

Donations have been made in Mr. Incorvia's memory by: South Shore Counseling, Wantagh, NY

A memorial fund has been established in the name of Ms. Hope (Esperanza) Irizar

Donations have been made in Ms. Irizar's memory by:

Cynthia Siska Keith Gurkin Fort Lauderdale, FL Miami Beach, Fl. Steve Smith Sergio and Tina Melicio Cooper City, FL Hollywood, FL

A memorial fund has been established in the name of Jay "Jerry's Brother"

Donations have been made by:

Geoffrey and Sandy Goldworm, Jupiter, FL

A memorial fund has been established in the name of Mr. Doyle Jordan

Donations have been made in Mr. Jordan's memory by: Linda Kay Fisher, Bakersville, CA

A memorial fund has been established in the name of Mrs. Beverly Ann Kalfas

Donations have been made in Mrs. Kalfas' memory by:

Robert and Kay Otte Lawrence and Libby, MT Virginia Hochstatter Marshall, MN Joseph and Catherine Hirte Lowell and Doris Tucson, AZ Trunkenholz Roberta Horton Florence, AZ Florence, AZ Jim Kalfas Sanford and Joyce Vaughn Florence, AZ Florence, AZ Todd and Jana Raasch Robert and Cathryn Egger

Bellevue, WA Florence, AZ Donald Siplon Robert and Beverly Terranova Whitehall MI Florence, AZ Ron and Joanne Caya James F. Gifford and Family

Mason City, IA Naples, FL Joann Wilke Gerald and Florence A7 Patricia Fraser Lawrence and Virginia Hoc Florence, AZ Andy and Vivian Brumbaugh Dimitri L. Kalfas Florence, AZ Florence, AZ

Mary E. Rademacher

Peoria, AZ

A memorial fund has been established in the name of Mrs. Helen Kardon

Donations have been made in Mrs. Kardon's memory by: Leslie Furst, Bethesda, MD

A memorial fund has been established in the name of Mr. Michael Alexander Karnacewicz

Donations have been made in Mr. Karnacewicz' memory by: Micheleen Karnacewicz, Brooklyn, NY

A memorial fund has been established in the name of Mr. Joseph F. Kenney, Sr.

Donations have been made in Mr. Kenney's memory by: James Paugh, Palmer, MA

A memorial fund has been established in the name of Mr. Michael L. Kiely

Donations have been made in Mr. Kiely's memory by: Myra Kiely, Carol Stream, IL

A memorial fund has been established in the name of Mr. Joseph Kotelnicki, Sr.

Donations have been made in Mr. Kotelnicki's memory by:

Tammy Gerber Highlands Ranch, CO

A memorial fund has been established in the name of Mr. Joseph John Krivak

Jody Low, Rochester, NY

Joseph and Sally Naret

Craig and Rebecca Landa

Dave and Holly Morrison

Jerry and Ronnie Markey

David and Karen Schweizer

Patrick & Kristie Stevenson

Overland Park, KS

Len Paris and Family

Laconia, NH

Zeliencople, PA

Freeland MD

Crofton, MD

Richmond VA

McMurray, PA

Durvea, PA

Chuck and Natalie Fogarty

Donations have been made in Mr. Krivak's memory by:

Michelle, Xuming and Lori Le Clarksvile, MD

Earl and Virginia Stevenson Jr., Uniontown, PA

Rich Carlson, Berlin, MD

Ed and Janet St. Jean Bowie, MD

Donald and Cynthia Pulver Ocean City, MD

Bill and Sandra Engels Marco Island, FI Gothard and Mary Lou Lane

Grand Lake, CO Margaret (Peggy) White

Los Gatos, CA George Foussekis, Louisa, VA

Edward Krivak. Newark. DE

Alan and Paige Lichtenstein Birmingham, AL

L. Paul Kassouf & Co., P.C. Birmingham, AL

Lanny and Ricki Kline Birmingham, AL

Lynn Davis, Weston, FL Bob and Dinah Grollman

Atlanta GA

Grant A. Capelouto on behalf of The Capelouto Family Tallahasee. FL

Susan Wilen New York, NY

Michael and Karen Koplon Memphis, TN

Judy McDonald (Ladden) Birmingham, AL

Mike and Joan Krawcheck Birmingham, AL

Charlotte Wilen Atlanta, GA Carl Capelouto, Atlanta, GA Steven and Patti Westbrook Birmingham, AL

William and Mary Pearson Birmingham, AL

Chris Hood Birmingham, AL

Stuart & Frances Galishoff Atlanta, GA

Joe and Jane Bluestein Birmingham, AL

Stanley and Judy Sherman

Atlanta GA Laurie Max

Birmingham, AL Judith D. Borisky and Robert Metzger Birmingham, AL

Dr. & Mrs. Marc Michelson Mountain Brk, AL

Sam and Gina Shapiro Atlanta, GA

L.R. and Peggy M. Fortier Birmingham, AL

Kenny and Sandy Seton Mountain Brook, AL Gayle, W. Leitman

Birmingham, AL

A memorial fund has been established in the name of Mr. John Anthony Kroll

Donations have been made in Mr. Kroll's memory by:

Ray and Kathy Stell Jennifer Delsite Pittshurah PA Blacksburg VA Syd and Christy Sprouse Wade and Catherine Frye Richmond, VA Richmond, VA

A memorial fund has been established in the name of Mr. Dennis G. Lackie

Donations have been made in Mr. Lackie's memory by:

Ken Dvorak John and Catherine Roach Naperville, IL Libertyville, IL

Employees of Thomas and Janice Powell Go West T-Shirt Com Mundelein II Fort Collins CO Theresa A. Buckman Employees of Palatine, IL

Go West T-Shirt Company Kathryn M. Lackie Loveland, CO Mundelein, II

A memorial fund has been established in the name of Mrs. Barbara Pilch-Kuett Latchford

Donations have been made in Mrs. Latchford's memory by:

Josh and Elisabeth Stark James W. Freeman Reston, VA Gaithersburg, MD

A memorial fund has been established in the name of Mr. Eddie Leitman

Donations have been made in Mr. Leitman's memory by:

Deborah, Larry, Rachel and Stanley and Beverly Eric Levine Erdreich Birmingham, AL Birmingham, AL Russell Tucker Sunny Goldstein Franklin Ashton, MD Northridge, CA David Olivier Gary and Susan Goldstein Arlington, VA Birmingham, AL Wavne and Deborah Wilhelm Leslie Stone Chattanooga, TN Atlanta. GA

Andre' Toffel

Birmingham, AL

Ed and Mary Jo Baich

Medford, OR

A memorial fund has been established in the name of Mr. Ronald Logan

Donations have been made in Mr. Logan's memory by: Marvin and Wendy Clymer, Willow Grove, PA

A memorial fund has been established in the name of Mr. Rick Bo Low, Jr.

Donations have been made in Mr. Low's memory by: Susan Graves, San Diego, CA

A memorial fund has been established in the name of Ms. Ruth Glogow Lublin

Donations have been made in Ms. Lublin's memory by:

Carol Weiss, Staten Island, NY

A memorial fund has been established in the name of Mrs. Doris M. Magiera

Donations have been made in Mrs. Magiera's memory by:

Alan and Heidi Kozlowski Olympic Valley, CA Thomas LeBlond Cushing, ME Food Share Inc. Palmer, MA

Richard and Mary Jane Caron North Brookfield, MA

Mr. and Mrs. Edward J. Koss Palmer MA

David and Carleen Coderre Palmer, MA

James Paugh Palmer, MA

Jeffrey J. Robinson and Kristine Sheehy Chelmsford, MA

FLEXcon Company, Inc. Spencer, MA

Mark Holmes Berlin, CT

St. Thomas the Apostle Bingo

Palmer, MA

A memorial fund has been established in the name of Mrs. Patricia J. Marsh

Donations have been made in Mrs. Marsh's memory by: John Fehrman, Sebring, FL

A memorial fund has been established in the name of Ms. Jan Ross May

Donations have been made in Ms. May's memory by: Vero Beach High School Class of 1962, Vero Beach, FL

A memorial fund has been established in the name of Mr. Edward L. McCarthy

Donations have been made in Mr. McCarthy's memory by: Michael and Kristen McCarthy, Elk Grove, CA

A memorial fund has been established in the name of Mrs. Maria-Luise "Diane" McDonald

Donations have been made in Mrs. McDonald's memory by: Robert and Lori Huffman, Crystal, MN

A memorial fund has been established in the name of Ms. Marie B. McLaughlin

Donations have been made in Ms. McLaughlin's memory by: Ann Bradshaw, Providence Forge, VA

A memorial fund has been established in the name of Mr. Wayne Meling

Donations have been made in Mr. Meling's memory by: Patricia Meling, Arlington Heights, IL

A memorial fund has been established in the name of Mrs. Bonnie A. Merlet

Donations have been made in Mrs. Merlet's memory by: Mike Merlet, ASA Inc., Madison, WI

A memorial fund has been established in the name of Mr. Charles R. Mertz

Donations have been made in Mr. Mertz' memory by: Dorothy A. Mertz, Lancaster, PA

A memorial fund has been established in the name of Mrs. Minnie F. Merullo

Donations have been made in Mrs. Merullo's memory by:

Angelo Sansano Darvl Hoffmann. and Jennifer Nicholas Kurt and Krista Okevholm Dover, NJ Hampton, NJ Bob Aitkens and Eric Mead Jeanne Toth Little Silver, NJ Bedminster, NJ Pat and Barbara D'Italia Mike and Louise Kenny Redminster N.I. Alexandria VA

A memorial fund has been established in the name of Mr. Dennis Metts

E. Rhett Hobgood

Bill and Fredda Hobgood

Madison, MS

Vicksburg, MS

Mt. Zion

Donations have been made in Mr. Metts' memory by:

Marty and Sandy McGee Harold Metts Memphis, TN Vista, CA Shane and

George and Midge Milam Renton KY

Jerry and Kathy Sanderson Benton, KY

Carroll Evans Sunday School Class.

First Baptist Church

(Sunday School Class) West Paducah, KY Benton, KY

Carolyn Burnett, Paducah, KY

A memorial fund has been established in the name of Mr. Kenneth E. "Gene" Milburn

Donations have been made in Mr. Milburn's memory by:

Karen Bloomfield Frank Friedman and the Charlottesville, VA PVCC Community
Andy & Danielle Lewandowski Palmyra, VA Alvin "Val" Sledd
Bob and Jane Dudgeon Poquoson, VA

Granby, CT

Rosemary, Doug, Michelle Caron, Palmyra, VA

A memorial fund has been established in the name of Mr. Edward L. Miller

Donations have been made in Mr. Miller's memory by:

Pat Ward, Ashkum, IL

Bill and Carol Christy

Watseka, IL

Leslie A. Myers

Betty J. Weber

Nashville, TN

Ruth E. Savoie, Onarga, IL

Ronald & Marlene Zachgo

Watseka, IL
Linda Scering
Bradley, IL
Clyde and Carol Bargmann
Gilman, IL
Ashkum, IL

A memorial fund has been established in the name of Mr. George Milonas

Donations have been made in Mr. Milonas' memory by: John Pierce, *Jacksonville, FL*

A memorial fund has been established in the name of Mrs. Lillian M. Morris

Donations have been made in Mrs. Morris' memory by: Timothy P. Morris, *Naperville*, *IL*

A memorial fund has been established in the name of Mr. Hersh Muchnick

Donations have been made in Mr. Muchnick's memory by: Sol and Trudy Klioze, *East Lyme, CT*

A memorial fund has been established in the name of Mrs. Paz Rodriguez Muniz

Donations have been made in Mrs. Muniz' memory by:

Eric, Charlotte and Marc Aldaz, Garland Linnea Muniz Henderson and Laura *Hubert, NC* Fogelsong, *San Antonio, TX*

A memorial fund has been established in the name of Mr. Thomas Mabry Myall, Jr.

Donations have been made in Mr. Myall's memory by: The Poly Alumni Association, *Crowley, TX*

A memorial fund has been established in the name of Ms. Paula Neidlinger

Donations have been made in Ms. Neidlinger's memory by: Trudy Willauer, *Agoura Hills, CA*

A memorial fund has been established in the name of Ms. Ruth Newman

Donations have been made in Ms. Newman's memory by: Rona Spiller, *Boynton Beach, FL*

A memorial fund has been established in the name of Mrs. Arlene O'Donnell

Donations have been made in Mrs. O'Donnell's memory by:

James J. O'Donnell, III Charlene Slider Ocean City, NJ Perkasie, PA

A memorial fund has been established in the name of Mr. Chris Okuhara

Donations have been made in Mr. Okuhara's memory by:

Franco U. Imada Steven Fujita Kailua, Hl Honolulu, Hl

Calin J. Kim, Honolulu, HI

A memorial fund has been established in the name of Mrs. Claudia Ann Pappas

Donations have been made in Mrs. Pappas' memory by:

John and Lucille Lynch Charlene Darrow, Gladstone, MI Virginia Beach, VA

A memorial fund has been established in the name of Dr. George S. Pascoe

Donations have been made in Dr. Pascoe's memory by:

Cindy Shaw Nick and Joan DeRosa
Palm Harbor, FL West Mifflin, PA

Dorothy M. Ward Robert and Joan Livingston
Pittsburgh, PA Jefferson Hills, PA

David and Rayne Bird John and Maureen Kelly
South Park, PA Bloomfield Hills, MI
Harold and Kathryn Pascoe Ramon and Patricia Lozano

Ron and Mona Lee Everly
Fort Myers, FL
Women's Bridge Club
Gary and Michele Reed

Jefferson Hills, PA

Duane and Nancy Richey

A memorial fund has been established in the name of Mr. Harvey Adam Pearlman

West Mifflin, PA

Donations have been made in Mr. Pearlman's memory by: Ken and Cynthia Eckstein, *Bridgewater, CT*

A memorial fund has been established in the name of Mr. Alejandro Perez

Donations have been made in Mr. Perez' memory by: Ana Perez, *Glendale, AZ*

A memorial fund has been established in the name of Mr. Louis F. Posillico

Donations have been made in Mr. Posillico's memory by:

Nicole Posillico Havertown, PA

A memorial fund has been established in the name of Mr. Stephen M. Redpath

Donations have been made in Mr. Redpath's memory by: Rosalyn Redpath, *Lyndhurst*, *OH*

A memorial fund has been established in the name of Mr. Fred E. Schmalz-Riedt

Donations have been made in Mr. Schmalz-Riedt's memory by: Yvette Schmalz-Riedt, *Earlysville, VA*

A memorial fund has been established in the name of Mr. Carl Douglass Riegel

Donations have been made in Mr. Riegel's memory by: Springfield Missouri Convention & Visitors Bureau Springfield, MO

A memorial fund has been established in the name of Mr. Milton Rogovin

Donations have been made in Mr. Rogovin's memory by: Wegrzyn Kahn, *Valrico, FL*

A memorial fund has been established in the name of Mr. Abraham (Abe) Rosenthal

Donations have been made in Mr. Rosenthal's memory by: Doctor Harold M. Rosenthal. *Houston. TX*

A memorial fund has been established in the name of Mr. Charles W. Ruckh

Donations have been made in Mr. Ruckh's memory by:

Jayne Butler Charles and
Warren, NJ Robin Lashbrook
Jennifer Cruickshank Kansas City, MO

Princeton, NJ Don and Elizabeth Goulding

Katarina Pfaff, Parkville, MO Kansas City, MO

A memorial fund has been established in the name of Mrs. Mary A. "Mimi" Ryan

Donations have been made in Mrs. Ryan's memory by:

Socrates C. Georgeades Vernon Squires Spring Hill, FL Winnetka, II. Illinois Tool Works Patrick and Sally Dix Foundation Des Moines, IA Glenview, il Pamela Bell Timothy D. O'Hara Chicago, IL Chicago, II. Susan Eaton Joe and Christina Perez Fredonia WI Chicago, IL

Mr. & Mrs. Larry Faulhaber

Mark, IL

Oak Park, IL

Jack and Sally Daniels

Wilmette, IL

Doctor and Mrs. Kevin
McClone
Wilmette, IL

Michael Earl, Wilmette, IL

Tom and Lauren Evans
Naperville, IL

John P. Ryan George & Michele Hinchcliff

Wilmette, IL
Richard and Joyce Morrison
Glenview, IL
Margaret A. Malloy
Rocky River, OH

Lake Forest, IL
Bill and Pat Mulligan
Arlington Hts., IL
Adelaide Meskill
York, ME

Barbara Sullivan
Nashville, TN
Palo Alto, CA

John and Rosemary
Butterfield
Park Ridge, IL
Park Ridge, IL
Mr. and Mrs. Alan Fox,
West Bloomfield, MI
Pague of Women

West Bloomfield, MI

Randi Marino

Potomac, MD

Voters of Wilmette

Wilmette, IL

Irwin List

Erwin and Donna Feldman

INVIN LIST EIWIN AND DOMAS PE Northbrook, IL Bloomfield Hills, MI John and Susan Kelty Mary E. O'Donnell River Forest, IL Lake Forest, IL Jim and Betty McCabe Wilmette, IL Terra R. McClory Glenview, IL

Mike and Jean Cavanaugh Wilmette, IL

William and Carolyn Gifford Evanston, II.

Diane Tate, Wilmette, IL

Doris Oshana

Lincolnwood, IL Richard and Helen Myhre Gainesville, VA

Steven and Susan Leslie Birmingham, MI

Trading Technologies International, Inc. *Chicago, IL*

Carlos and Silvia Borzutzky Pittsburgh, PA

Peter and Nancy Lems Wilmette, IL

Richard & Maryjeanne Burke Chicago, IL

Adam and Jill Gantz Farmington Hills, MI

Mark and Lauren Cohen Northbrook, IL Margaret Pearl Seattle, WA

A memorial fund has been established in the name of Ms. Bonnie L. Salter

Donations have been made in Ms. Salter's memory by: Keith and Jacque Norris, *Glendale, CA*

A memorial fund has been established in the name of Mr. Carlos M. Santiago

Donations have been made in Mr. Santiago's memory by: Crowning Jewels

Crowning Jewels Centereach, NY

A memorial fund has been established in the name of Mrs. Sue Schieres

Donations have been made in Mrs. Schieres's memory by: Robert Schieres, *Centerville*, *OH*

A memorial fund has been established in the name of Mr. Peter Signorello

Donations have been made in Mr. Signorello's memory by: SvIvia Signorello. *Belvidere. NJ*

A memorial fund has been established in the name of Mr. Donald Schimek

Donations have been made in Mr. Schimek's memory by: Pat Schimek, *Easton, MN*

A memorial fund has been established in the name of Mr. Keith D. Schmidt

Donations have been made in Mr. Schmidt's memory by:

David and Peggy Engh Shoreview, MN Howard and Carol Costello Stillwater, MN

Dale and Marlene Johnson Crookston, MN

Dr. & Mrs. Roger Orensteen *Edina, MN*

Marvin and Diane Magnuson and Family *Crookston, MN* Jeff Ehleringer

Lino Lakes, MN Lynn and Jean Schmidt Bemidji, MN

Diane P. Wells, *Tulsa, OK*John M. Pope, *Edina, MN*

Jeffrey & Lynne Ehleringer

Gerald and Carol Granley Cloquet, MN

Paul and Pamela Haugen Minneapolis, MN

Ben and Gail Wong Eden Prairie, MN

Peter & Deborah Jacobson Maple Grove. MN

Roberto and Sonja Bari Brooklyn Park, MN John R. Schmidt Cottage Grove, MN

Ramona C. Lackore and Ron B. Adkins *Willmar, MN*

A memorial fund has been established in the name of Mr. Ronald W. Scott

Donations have been made in Mr. Scott's memory by: David L. Scott, *Lombard*, *IL*

A memorial fund has been established in the name of Mr. John William Shaw

Robert H. Stotz

Mcl ean VA

Donations have been made in Mr. Shaw's memory by:

Arthur and Nora Steiger Springfield, VA

National Association
of Insurance and
Financial Advisors
Falls Church, VA
Jerry Shaw and Children

John and Stephanie Adgate
Wake Forest, NC
Rhett Ferguson
Prattville, AL

Decatur. Al

A memorial fund has been established in the name of Mrs. Mary M. Sheppard

Donations have been made in Mrs. Sheppard's memory by:

Chuck and Mary McGowan TAUC. The Association of Union Contructors Aliquippa, PA Arlington, VA Tom Schlafly James Mirgliotta Naperville, IL Aurora, OH IMPACT Staff Ronald and Nancy Nemes Washington, DC Strongsville, OH Walter Wise Thomas Maley Oakton, VA Berea, OH

A memorial fund has been established in the name of Ms. Helene Sherk

Donations have been made in Ms. Sherk's memory by: Mary Lou Iserson, *Tucson, AZ*

A memorial fund has been established in the name of Mrs. Marilyn Simmons

Donations have been made in Mrs. Simmons' memory by: Ceva Logistics, *Houston, TX*

A memorial fund has been established in the name of Mrs. Katie Merritt Smart

Donations have been made in Mrs. Smart's memory by: Roger Prehoda and Lori Smith

A memorial fund has been established in the name of Mr. Robert E. Snyder

Donations have been made in Mr. Snyder's memory by:

Rita Ossias

West Palm Beach, FL

Lewis and Gail Koptowsky
Palm Beach Gardens, FL

Barbara Frank

Joy Palevsky
Briarwood, NY

Arthur and Jeanne Sloup
East Islip, NY

A memorial fund has been established in the name of

Mr. Bruce R. Souder

Donations have been made in Mr. Souder's memory by:

Marie Souder Fort Lauderdale, FL

Jamaica, NY

Holly, FL

A memorial fund has been established in the name of Mr. Angelo Staikos

Donations have been made in Mr. Staikos's memory by:

Chris and Vasiliki Angelos

West Hartford, CT

Mary and Sue Lowe

Keyport, NJ

Mr. and Mrs. Joseph Artelli

John and Julie Mocci

Morganville, NJ

Ellie Papacosma

Harpswell, ME

George and Doris Cav

Holmdel, NJ Mr. and Mrs. Joseph Liggio

Mr. and Mrs. Joseph Liggio and Family, *Keyport, NJ* Patti Malloy

Manasquan, NJ

Bill and Betty Hetherington
Keyport, NJ

John, Barbara, Jo
and Christine DiG
E. Patchogue, NY

George and Doris Cavuto Bay Shore, NY
Joan Malloy, Holmdel, NJ
William Kerchner
Keyport, NJ
John, Barbara, John, Dean
and Christine DiGregorio

A memorial fund has been established in the name of Mrs. Virginia R. Stephenson

Donations have been made in Mrs. Stephenson's memory by: Howard Stephenson, *Lakeside, MT*

A memorial fund has been established in the name of Mrs. Constance V. Stuckey

Donations have been made in Mrs. Stuckey's memory by:

Bob and Brenda Cody Bruce and Gail Runyan Springboro, OH Dacula GA Tim and Cheryl Kelly Bill and Sharon Tomko Buford, GA Monticello, GA The Karakas Family Paula Karides Naples, FL Saint Louis, MO Tom Caprio John and Paula Stuckey Palm Harbor Fl Kettering, OH Dave and Brenda Stuckey Kenneth Wenzl

Plano, TX Springboro, OH
ITT, Seneca Falls, NY Joann Holzshu, Ocala, FL
GAC Fitness and Family Craig and Kellie Coy
Springboro, OH Springboro, OH

Friends at Valpak
Largo, FL

Bob and Judy Perez
Bonita Springs, FL

Michael Doyle
Mendham, NJ

Neil and Stephanie Liu

Roger, Betty, Brian Stuckey
Kettering, OH
Doris J. McKinney
Dayton, OH
Carl and Jane Wilson
Marietta, GA
Vicki Peters

Neil and Stephanie Liu Vicki Peters
Irvine, CA Miamisburg, OH

Greg and Ann Courchane Palm Harbor, FL Robert and Eloise Mason
Doug and Peggy Fralinger Hilton Head Island, SC

Doug and Peggy Hallinger

Crown Point, IN

Jewel Downend

Joe and Judy Boiseau

Springboro, OH

Carefree, AZ

Mark and Julie Glockner

Villa Hills, KY

Gus and Bren Pathenos

W. Douglas Lewis

Manchester, MO Atlanta, GA
George Pathenos Rob and Alexis Wagnon
Bridgeton, MO Saint Louis, MO

A memorial fund has been established in the name of Mr. Satoru "Sat" Sugiura

Donations have been made in Mr. Sugiura's memory by:

James and Kyoko Roseborough, Piedmont, CA

A memorial fund has been established in the name of Mrs. Joann Suria

Donations have been made in Mrs. Suria's memory by: Margaret Kennedy Schneider, Daytona Beach Shores, FL

A memorial fund has been established in the name of Mr. Bob Swindell

Donations have been made in Mr. Swindell's memory by: Ella and Les, Swindell, Browns Summit, NC

A memorial fund has been established in the name of Mrs Jennie Swiderski

Donations have been made in Mrs. Swiderski's memory by:

Emily Green, Rhea Krause Southampton, NJ Doctor and Mrs. Gerald Markowitz, Doctor and Mrs. Ernest Dellheim, Doctor and Mrs. David Block and Staff Narherth PA

Pennsauken N.I. Stan, Ginny and Sue Swiderski Cherry Hill, NJ

The Girls of 632

Ardmore. PA

Ann Monahan

Suzanne Kadlic Raymond & Sharon Cybulski Cherry Hill, NJ Elkton, MD Leeann Young Karen M. Deacon Collingswood, NJ Cherry Hill, NJ

A memorial fund has been established in the name of Mr. H. Franklin Taylor, III

Donations have been made in Mr. Taylor's memory by: Ann C. Taylor, Glen Allen, VA

A memorial fund has been established in the name of Mr. Remo Tersolo

Donations have been made in Mr. Tersolo's memory by:

Don and Fran Albrecht Huntington Beach, CA Constantino & Eileen Albera Banning, CA

Carla Gauss Rellflower CA Severino & Patricia Trapletti

John Taylor, Vista, CA

Margaret Tersolo Carlsbad, CA

Roseville, CA Chuck and Alice Morgan Don and Joann Williams Arlington Heights, IL Leonard and Sylvi Jones

Claremont, CA Yasna Ouwerkerk Torrance, CA Debbie Carver

Plainfield, IL Maria Hickey Arroyo Grande, CA Susan M. Urban Carlsbad, CA

Bernard and Lisa Gallizio Nipomo, CA

Oceanside, CA

Campbell Tersolo & Assoc. Robert and Helen Belcher Solana Beach, CA Banning, CA Mike Tersolo, Carlsbad, CA

A memorial fund has been established in the name of (Lt. Col. Ret.) USAF Timothy Louis Thomas

Donations have been made in Lt. Col. Thomas' memory by: Ann Thomas, Wichita Falls, TX

A memorial fund has been established in the name of Mrs. Jeannette Toth

Donations have been made in Mrs. Toth's memory by:

Donna, Dave & Davy Bunton Joseph Toth Englishtown, NJ Arlington, VA

A memorial fund has been established in the name of Ms. Julia Trebesiner

Donations have been made in Ms. Trebesiner's memory by: Karlene Denby, Houston, TX

A memorial fund has been established in the name of Mrs. Bettie Munden Tulloss

Donations have been made in Mrs. Tulloss' memory by: Gus Tulloss, Rocky Mount, NC

A memorial fund has been established in the name of Mrs. Connie Ann Visnapu

Donations have been made in Mrs. Visnapu's memory by:

Harriet E. Bertelsen Beta Sigma Phi, Benbrook, TX Laureate Alpha Nu Chapter McAllen, TX

A memorial fund has been established in the name of Mr. Joseph H. Vogt

Donations have been made in Mr. Vogt's memory by: Rogers and Kathy Dixson, Atlanta, GA

A memorial fund has been established in the name of Mrs. Lynn C. Vokulich

Donations have been made in Mrs. Vokulich's memory by:

William and Judith Rose RFBM-Estar Division at Spencerport, NY Eastman Kodak Company Rochester NY Joyce Miles Eileen S. Casey Rochester, NY Rochester, NY David & Barbara Leugemors The Miesch Family Henrietta NY

A memorial fund has been established in the name of Mrs. June Marie Wakeley

Donations have been made in Mrs. Wakeley's memory by:

Dorothy Nelson Ann Wegrzyn Orchard Park, NY Jamestown, NY Catherine Dixon Olmstead School #156 Niagara Falls, NY Sunshine Club Buffalo, NY Marianne Farallo Kenneth & Elizabeth Wyraz Lakeview, NY North Tonawanda, NY Nancy L. Larson Frank Wakeley Dunkirk NY North Tonawanda, NY

A memorial fund has been established in the name of Mr. Richard (Rick) Warner

Donations have been made in Mr. Warner's memory by: Jean McCracken, Hollywood, FL

A memorial fund has been established in the name of Mr. James L. Warren

Donations have been made in Mr. Warren's memory by: Carolyn J. Warren St. Petersburg, FL

A memorial fund has been established in the name of Mrs. Karen A. Wenzel

Donations have been made in Mrs. Wenzel's memory by:

Paul DeStefano Paul Wenzel North Reading, MA Wevmouth, MA

A memorial fund has been established in the name of Ms. Patricia Irene White

Donations have been made in Ms. White's memory by: Amy Chiu, Lincolnwood, IL

A memorial fund has been established in the name of Mr. Perry Whitley, Jr.

Donations have been made in Mr. Whitley's memory by: Ross Jackson, Carmi, IL

A memorial fund has been established in the name of Mr. Neal Eddins Wingfield

Donations have been made in Mr. Wingfield's memory by: Page L. Wingfield, Goldsboro, NC

A memorial fund has been established in the name of Mrs. Gladys W. Winkle

Donations have been made in Mrs. Winkle's memory by: Dan and Carol Seely Lena L. Crabtree Havmarket, VA Gainesville. FL

A memorial fund has been established in the name of Mr. Walter S. Wolodkin

Donations have been made in Mr. Wolodkin's memory by: Thomas Ross. Palatine. IL

A memorial fund has been established in the name of Ms. Hilde Yates

Donations have been made in Ms. Yates' memory by: Bob and Candy Burroughs, Tucson, AZ

A memorial fund has been established in the name of Mrs. Joan Zimetbaum

Donations have been made in Mrs. Zimetbaum's memory by: Dr. Jane Wachs, Ardsley, NY

A memorial fund has been established in the name of **Doctor Marcel Zimetbaum**

Donations have been made in Dr. Zimetbaum's memory by: Dr. Jane Wachs, Ardsley, NY

Suzanne Fleischman Memorial Fund for Patient Advocacy

A fund has been established by the MDS Foundation in memory of Suzanne Fleischman. Contributions may be sent to the Foundation with a notation designating the Suzanne Fleischman Memorial Fund for Patient Advocacy.

Diane Dempster, Tucker, GA Roslyn Raney, Menlo Park, CA Fay Wanetick, Pittsburgh, PA

A Living Endowment

Many families are affected by living with the reality of MDS. There is an extraordinary way to contribute to the MDS Foundation and support our mission of working as a resource for patients, families, and healthcare professionals. A commitment to donate to the Foundation on occasions of loss, birthdays, and anniversary remembrances can be made. Honor your friends or family members on these occasions with a donation, and the MDS Foundation will send an acknowledgment to the recipient, recognizing the occasion.

A Living Endowment donation has been made in honor of:

Ethel Muskat

This donation was submitted by: **Geoff and Sandy Goldworm,** *Jupiter, FL*

A Living Endowment donation has been made in honor of:

Mindy Rose

This donation was submitted by: **Geoff and Sandy Goldworm,** *Jupiter, FL*

A Living Endowment donation has been made in honor of:

Mr. and Mrs. Edwin Ladov

This donation was submitted by: **Geoff and Sandy Goldworm,** *Jupiter, FL*

A Living Endowment donation has been made in honor of:

Frank and Donna Gallo

This donation was submitted by: **Tom & Dyann Panepinto,** *Pittsburgh, PA*

A Living Endowment donation has been made in honor of:

Robin Roberts

This donation was submitted by: **William Boyd,** *Kingsport, TN*

A Living Endowment donation has been made in honor of:

Arnold Schwartz

This donation was submitted by: **Gloria Schwartz,** *Woodland Hills, CA*

A Living Endowment donation has been made in honor of:

Flora Greenwald

This donation was submitted by: **Carol Pomeroy,** *Mount Marion, NY*

A Living Endowment donation has been made in honor of:

Ron Eia

This donation was submitted by: **Sharon Leonard,** *Edison, NJ*

A Living Endowment donation has been made in honor of:

Kevin Truong and Family

This donation was submitted by: **Raymond P. Lutomski,** *Cortlandt Manor, NY*

A Living Endowment donation has been made in honor of:

German Wong

This donation was submitted by: **Tania Amador,** *Jamaica, NY*

A Living Endowment donation has been made in honor of:

Paige McKelvy

This donation was submitted by: **Shawn McKelvy,** *Radford, VA*

A Living Endowment donation has been made in honor of:

Kevin Spawr

This donation was submitted by: **Adam Douglas Slawin**, *New Haven*, *CT*

A Living Endowment donation has been made in honor of:

Tom and Dyann Panepinto

This donation was submitted by: **Frank and Donna Gallo,** *Chicago, IL*

A Living Endowment donation has been made in honor of:

Lynn and Beth McMillan

This donation was submitted by: **Kevin & Sally Mahoney,** *Scottsdale, AZ*

A Living Endowment donation has been made in honor of:

Janet Law

This donation was submitted by: **Joyce Law,** *New York, NY*

A Living Endowment donation has been made in honor of:

Chet and Dorinda Adamick

This donation was submitted by: **Paul and Chris Jolie,** *Rutland, MA*

A Living Endowment donation has been made in honor of:

Joanne Tersch

This donation was submitted by: **Paul and Chris Jolie**, *Rutland*, *MA*

A Living Endowment donation has been made in honor of:

Raechel Ruch and Stephanie Ruch

This donation was submitted by:

Annabelle Schwartz
Southampton, PA

A Living Endowment donation has been made in honor of:

Mahaveer Prabhakar

This donation was submitted by:

Rajeev B. and Elizabeth Prabhakar San Francisco, CA

Living Endowment donations have been made in honor of:

Bob and Barbara Wolfe

This donation was submitted by:

Donald and Susan Lauffer *Bartlesville, OK*

Bill and Betty Wolfe Princeton, NJ

MDS Foundation Information

The Foundation's Board of Directors

John M. Bennett, MD

Professor of Medicine, Emeritus Laboratory Medicine and Pathology University of Rochester Medical Center Rochester, New York, U.S.A.

Mario Cazzola, MD

Professor of Hematology University of Pavia School of Medicine Head, Department of Hematology Fondazione IRCCS Policlinico San Matteo Pavia, Italy

Erin Demakos, RN, CCRN

Administrative Director
Myelodysplastic Disease Center
Icahn School of Medicine at Mount Sinai
New York, New York, U.S.A.

Theo J.M. de Witte, MD, PhD

Professor of Hematology Radboud University Nijmegen Medical Centre Nijmegen Centre of Molecular Life Sciences Nijmegen, The Netherlands

Pierre Fenaux, MD

Professor of Hematology Hôpital Avicenne, University Paris 13 Bobigny, France

Peter L. Greenberg, MD

Professor of Medicine/Hematology Stanford University School of Medicine Stanford, California, U.S.A.

Eva Hellström-Lindberg, MD, PhD

Associate Professor of Hematology Karolinska Institute at Karolinska University Hospital Huddinge Stockholm, Sweden

Sandra E. Kurtin, RN, MS, AOCN, ANP-C

Hematology/Oncology Nurse Practitioner The University of Arizona Cancer Center Adjunct Clinical Assistant Professor of Nursing Clinical Assistant Professor of Medicine University of Arizona Tucson, Arizona, U.S.A.

Alan F. List, MD

President and CEO and Frank and Carol Morsani Endowed Chair H. Lee Moffitt Cancer Center & Research Institute Tampa, Florida, U.S.A.

Silvia M.M. Magalhães, MD, PhD

Professor of Clinical Medicine— Hematology Federal University of Ceará Hospital Universitário Walter Cantídio Ceará, Brazil

Yasushi Miyazaki, MD

Chief, Dept. of Hematology Nagasaki University Graduate School of Biomedical Sciences Atomic Bomb Disease Institute Nagasaki, Japan

Ghulam J. Mufti, DM, FRCP, FRCPath

Professor of Haemato-oncology and Head of Department Haematological Medicine King's College London & King's College Hospital London, United Kingdom

Charlotte M. Niemeyer, MD

Professor of Pediatrics University Children's Hospital Freiburg, Germany

Stephen D. Nimer, MD, *Chairman The MDS Foundation, Inc.*

Director, Sylvester Comprehensive Cancer Center Professor of Medicine, Biochemistry & Molecular Biology University of Miami Miller School of Medicine Miami, Florida, U.S.A

David P. Steensma, MD

Associate Professor Department of Medicine Harvard Medical School Dana-Farber Cancer Institute Boston, Massachusetts, U.S.A.

Robert J. Weinberg, Esq.

Pepper Hamilton LLP Philadelphia, Pennsylvania, U.S.A.

Member Emeritus

Franz Schmalzl, MD

Innsbruck, Austria



Become a Member

The MDS Foundation would like to have you as a member. Membership is \$50 a year for physicians and other professionals. Patients, their families, and others interested in MDS may join at the reduced rate of \$35.

Membership benefits include a special subscription rate of \$135.00 for *Leukemia Research* (a substantial discount from the current institutional subscription rate of \$2,373), reduced professional registration fees at International Symposia, and issues of *The MDS News*.

Please visit us at: www.mds-foundation.org.