

## PERSONAL INFORMATION

David Bowen

## WORK EXPERIENCE

September 2005–Present

**Consultant and Honorary Professor of Haematology**

Leeds Teaching Hospitals (United Kingdom)

Lead for myeloid malignancies

December 2014–November 2015

**Secondment as National Expert to European Medicines Agency**

Leeds Teaching Hospitals (United Kingdom)

Scientific Advice (predominantly Oncology products)

Geriatric Medicines Strategy Team

Adaptive Pathways Team

July 2017–June 2019

**Clinical Lead, Haematology, Genomics, and Regulatory, National Cancer Registration and Analysis Service**

Public Health England (United Kingdom)

Improving data quality of Haematological Oncology dataset

Promoting analysis of Haem Onc data

## EDUCATION AND TRAINING

October 1976–July 1979

**MA MB Bchir**

University of Cambridge (United Kingdom)

Basic medical degree

September 1987–September 1995

**FRCPath, MD**

Cardiff University (United Kingdom)

Specialist Haematology training

## ADDITIONAL INFORMATION

## Expertise

Haematological malignancies

Acute myeloid leukaemia

Myelodysplastic Syndromes

Myeloproliferative Neoplasms

Cost effectiveness analysis

Cancer registration

Real world data collection and analysis

## Publications

h index = 44

Recent (since 2011)

Peer reviewed papers

1. de Swart L, Smith A, MacKenzie M, Symeonidis A, Neukirchen J, Mikulenková D, Vallespí T, Zini G, Paszkowska-Kowalewska M, Kruger A, Saft L, Fenaux P, Bowen D, Hellström-Lindberg E, Čermák J, Stauder R, Tatic A, Holm MS, Malcovati L, Mądry K, Droste J, Blijlevens N, de Witte T, Germing U. Cytomorphology review of 100 newly diagnosed lower-risk MDS patients in the European LeukemiaNet MDS (EUMDS) registry reveals a high inter-observer concordance. *Ann Hematol.* 2017

Jul;96(7):1105-1112

2. Williams J, Heppel NH, Britt-Compton B, Grimstead JW, Jones RE, Tauro S, Bowen DT, Knapper S, Groves M, Hills RK, Pepper C, Baird DM, Fegan C. Telomere length is an independent prognostic marker in MDS but not in de novo AML. *British Journal of Haematology*. 2017 Jul;178(2):240-249
3. de Witte T, Bowen D, Robin M, Malcovati L, Niederwieser D, Yakoub-Agha I, Mufti GJ, Fenaux P, Sanz G, Martino R, Alessandrino EP, Onida F, Symeonidis A, Passweg J, Kobbe G, Ganser A, Platzbecker U, Finke J, van Gelder M, van de Loosdrecht AA, Ljungman P, Stauder R, Volin L, Deeg HJ, Cutler C, Saber W, Champlin R, Giral S, Anasetti C, Kröger N. Allogeneic hematopoietic stem cell transplantation for MDS and CMML: recommendations from an international expert panel. *Blood*. 2017 Mar 30;129(13):1753-1762
4. Garelius HK, Johnston WT, Smith AG, Park S, de Swart L, Fenaux P, Symeonidis A, Sanz G, Čermák J, Stauder R, Malcovati L, Mittelman M, van de Loosdrecht AA, van Marrewijk CJ, Bowen D, Crouch S, de Witte TJ, Hellström-Lindberg E. Erythropoiesis-stimulating agents significantly delay the onset of a regular transfusion need in nontransfused patients with lower-risk myelodysplastic syndrome. *J Intern Med*. 2017 Mar;281(3):284-299
5. Michael Pfeilstöcker, Heinz Tuechler, Guillermo Sanz, Julie Schanz, Guillermo Garcia-Manero, Francesc Solé, John M. Bennett, David Bowen, Pierre Fenaux, Francois Dreyfus, Hagop Kantarjian, Andrea Kuendgen, Luca Malcovati, Mario Cazzola, Jaroslav Cermak, Christa Fonatsch, Michelle M. Le Beau, Marilyn L. Slovak, Alessandro Levis, Michael Luebbert, Jaroslav Maciejewski, Sigrid Machherndl-Spandl, Silvia M. M. Magalhaes, Yasushi Miyazaki, Mikkael A. Sekeres, Wolfgang R. Sperr, Reinhard Stauder, Sudhir Tauro, Peter Valent, Teresa Vallespi, Arjan A. van de Loosdrecht, Ulrich Germing, Dettlef Haase, Peter L. Greenberg. Time-dependent changes in mortality and transformation risk in MDS. *Blood* 2016 128:902-910
6. Baseline frailty evaluation in drug development. Cerreta F, Anki J, Bowen D, Cherubini A, Cruz Jentoft AJ, Guðmundsson A, Haberkamp M, Jansen P, Marchionni N, Morgan S, Rönnemaa E, Petrovic M, Pilotto A, Rosa M, Wildiers H. *J Frailty Aging*. 2016;5:139-40
7. Nieto M, Demolis P, Béhanzin E, Moreau A, Hudson I, Flores B, Stemplewski H, Salmonson T, Gisselbrecht C, Bowen D, Pignatti F. The European Medicines Agency Review of Decitabine (Dacogen) for the Treatment of Adult Patients With Acute Myeloid Leukemia: Summary of the Scientific Assessment of the Committee for Medicinal Products for Human Use. *Oncologist*. 2016, 21:692-700
8. Francesca Mastaglio, Khaled Bedair, Elli Papaemmanuil, Michael J Groves, Ann Hyslop, Norene Keenan, Eleanor J Hothersall, Peter J Campbell, David T Bowen, Sudhir Tauro. Impact of Socioeconomic Status on Disease Phenotype, Genomic Landscape and Outcomes in Myelodysplastic Syndrome. *British Journal of Haematology* 2016, 174, 227-34
9. Andreeff M, Kelly KR, Yee K, Assouline S, Strair R, Popplewell L, Bowen D, Martinelli G, Drummond MW, Vyas P, Kirschbaum M, Iyer SP, Ruvolo V, González GM, Huang X, Chen G, Graves B, Blotner S, Bridge P, Jukofsky L, Middleton S, Reckner M, Rueger R, Zhi J, Nichols G, Kojima K. Results of the Phase I Trial of RG7112, a Small-Molecule MDM2 Antagonist in Leukemia. *Clin Cancer Res*. 2016, 22(4):868-76
10. J Martinalbo, D Bowen, J Camarero, M Chapelin, P Démolis, P Foggi, B Jonsson, J Llinares, A Moreau, D O'Connor, J Oliveira, S Vamvakas, F Pignatti. Early market access of oncologic drugs in the EU. *Annals of Oncology* 2016, 27, 96-105
11. Alan K Burnett, Nigel H Russell, Robert K Hills, David Bowen, Jonathan Kell, Steve Knapper, Yvonne G Morgan, Jennie Lok, Angela Grech, Gail Jones, Asim Khwaja, Lone Friis, Mary Frances McMullin, Ann Hunter, Richard E Clark, David Grimwade, UK National Cancer Research Institute Acute Myeloid Leukaemia Working Group. Arsenic trioxide and all-trans retinoic acid treatment for acute promyelocytic leukaemia in all risk groups (AML17): results of a randomised, controlled, phase 3 trial. *Lancet Oncology* 2015, 16, 1295-305
12. Catherine Cargo, Nicola Rowbotham, Paul Evans, Sharon Barrans, David Bowen, Simon Crouch, Andrew Jack. Targeted Sequencing identifies patients with pre-clinical MDS at high risk of disease progression. *Blood* 2015 126, 2362-5
13. Dan Stark, David Bowen, Elaine Dunwoodie, Richard Feltbower, Rod Johnson, Anthony Moran, Charles Stiller, and Catherine O'Hara. Survival patterns in teenagers and young adults with cancer in the United Kingdom: comparisons with younger and older age groups. *European Journal of Cancer* 2015, 51, 2643-54.
14. Fabio Efficace PhD, Gianluca Gaidano MD, Francesco Cottone PhD, Emanuele Angelucci MD, Dominik Selleslag MD, Mirjam Sprangers MD, Ricco MD, Grazia Sanpaolo MD, Odile Beyne-Rauzy MD, Giuseppe A. Palumbo MD, David Bowen MD, Marco Vignetti MD, Franco Mandelli MD. A multicentre prospective observational study to investigate the prognostic value for survival of self-

reported health status in patients with Myelodysplastic Syndromes. *Lancet Oncology* 2015, 16, 1506-14

15. Matteo G. Della Porta, Heinz Tuechler, Luca Malcovati, Julie Schanz, Guillermo Sanz, Guillermo Garcia-Manero, Francesc Solé, John M. Bennett, David Bowen, Pierre Fenoux, Francois Dreyfus, Hagop Kantarjian, Andrea Kuendgen, Alessandro Levis, Jaroslav Cermak, Christa Fonatsch, Michelle M Le Beau, Marilyn L. Slovak, Otto Krieger, Michael Luebbert, Jaroslaw Maciejewski, Silvia MM. Magalhaes, Yasushi Miyazaki, Michael Pfeilstöcker, Mikkael A. Sekeres, Wolfgang R. Sperr, Reinhard Stauder, Sudhir Tauro, Peter Valent, Teresa Vallespi, Arjan A van de Loosdrecht, Ulrich Germing, Detlef Haase, Peter L. Greenberg, and Mario Cazzola. Validation of WHO classification-based Prognostic Scoring System (WPSS) for myelodysplastic syndromes and comparison with the revised International Prognostic Scoring System (IPSS-R). A study of the International Working Group for Prognosis in Myelodysplasia (IWG-PM). *Leukemia* 2015, 29, 1502-13.

16. Louise de Swart, Alex Smith, Thomas W. Johnston, Detlef Haase, Jackie Droste, Pierre Fenoux, Argiris Symeonidis, Guillermo Sanz, Eva Hellström-Lindberg, Jaroslav Cermák, Ulrich Germing, Reinhard Stauder, Otilia Georgescu, Marius MacKenzie, Luca Malcovati, Mette S. Holm, Antonio M. Almeida, Krzysztof Mądry, Borhane Slama, Agnes Guerci-Bresler, Laurence Sanhes, Odile Beyne-Rauzy, Elisa Luño, David Bowen and Theo de Witte. Validation of the revised international prognostic scoring system (IPSS-R) in patients with lower-risk myelodysplastic syndromes: A report from the prospective European LeukaemiaNet MDS (EUMDS) registry. *British Journal of Haematology* 2015, 170, 372-83.

17. Srivasavi Dukka, David Bowen. An intensive approach to treatment for older patients with relapsed isolated NPM1 mutated AML. *Leukemia Research Reports* 2015, 4, 18-20

18. Fabio Efficace, Gianluca Gaidano, Massimo Breccia, Marianna Criscuolo, Francesco Cottone, Giovanni Caocci, David Bowen, Michael Lübbert, Emanuele Angelucci, Reinhard Stauder, Dominik Selleslag, Uwe Platzbecker, Grazia Sanpaolo, Anna Jonasova, Francesco Buccisano, Giordina Specchia, Giuseppe A. Palumbo, Pasquale Niscola, Chonghua Wan, Huiyong Zhang, Susanna Fenu, Virginia Klimek, Odile Beyne-Rauzy, Khanh Nguyen, Franco Mandelli. Prevalence, Severity and Correlates of Fatigue in Newly Diagnosed Patients with Myelodysplastic Syndromes. *British Journal of Haematology* 2015;168, 361-370

19. Aristoteles Giagounidis, Ghulam Mufti, Moshe Mittelman, Guillermo Sanz, Uwe Platzbecker, Petra Muus, Dominik Selleslag, Odile Beyne-Rauzy, Peter te Boekhorst, Consuelo del Cañizo, Agnès Guerci-Bresler, Lars Nilsson, Michael Lübbert, Bruno Quesnel, Arnold Ganser, David Bowen, Brigitte Schlegelberger, Gudrun Goehring, Tommy Fu, Bouchra Benettaib, Eva Hellstrom-Lindberg, Pierre Fenoux. Outcomes in RBC transfusion-dependent patients with Low-/Intermediate-1-risk myelodysplastic syndromes with isolated deletion 5q treated with lenalidomide: a subset analysis from the MDS-004 study. *European Journal of Haematology* 2014; 93, 429-438

20. Leonie Saft, Mohsen Karimi, Mehran Ghaderi, Andr Matolcsy, Ghulam J. Mufti, Austin Kulasekararaj, Gudrun Gohring, Aristoteles Giagounidis, Dominik Selleslag, Petra Muus, Guillermo Sanz, Moshe Mittelman, David Bowen, Anna Porwit, Tommy Fu, Jay Backstrom, Pierre Fenoux, Kyle J. MacBeth, and Eva Hellstrom-Lindberg. p53 protein expression independently predicts outcome in patients with lower-risk myelodysplastic syndromes with del(5q). *Haematologica* 2014; 99, 1041-1049.

21. Petter S. Woll, Una Kjallquist, Onima Chowdhury, Helen Doolittle, David C. Wedge, Supat Thongjuea, Rikard Erlandsson, Mtakai Ngara, Kristina Anderson, Qiaolin Deng, Adam J. Mead, Laura Stenson, Alice Giustacchini, Sara Duarte, Eleni Giannoulitou, Stephen Taylor, Mohsen Karimi, Christian Scharenberg, Teresa Mortera-Blanco, Iain C. Macaulay, Sally-Ann Clark, Ingun Dybedal, Dag Josefsen, Pierre Fenoux, Peter Hokland, Mette S Holm, Mario Cazzola, Luca Malcovati, Sudhir Tauro, David Bowen, Jacqueline Boultonwood, Andrea Pellagatti, John E. Pimanda, Ashwin Unnikrishnan, Paresh Vyas, Gudrun Gohring, Brigitte Schlegelberger, Magnus Tobiasson, Gunnar Kvalheim, Stefan N. Constantinescu, Claus Nerlov, Lars Nilsson, Peter Campbell, Rickard Sandberg, Elli Papaemmanuil, Eva Hellstrom-Lindberg, Sten Linnarsson, Sten Eirik W. Jacobsen. Myelodysplastic syndromes are propagated by rare and distinct human cancer stem cells in vivo. *Cancer Cell* 2014; 25, 794-808.

22. Ju YS, Alexandrov LB, Gerstung M, Martincorena I, Nik-Zainal S, Ramakrishna M, Davies HR, Papaemmanuil E, Gundem G, Shlien A, Bolli N, Behjati S, Tarpey PS, Nangalia J, Massie CE, Butler AP, Teague JW, Vassiliou GS, Green AR, Du MQ, Unnikrishnan A, Pimanda JE, Teh BT, Munshi N, Greaves M, Vyas P, El-Naggar AK, Santarius T, Collins VP, Grundy R, Taylor JA, Hayes DN, Malkin D; ICGC Breast Cancer Group; ICGC Chronic Myeloid Disorders Group\*; ICGC Prostate Cancer Group; Foster CS, Warren AY, Whitaker HC, Brewer D, Eeles R, Cooper C, Neal D, Visakorpi T, Isaacs WB, Bova GS, Flanagan AM, Futreal PA, Lynch AG, Chinnery PF, McDermott U, Stratton MR, Campbell PJ. Origins and functional consequences of somatic mitochondrial DNA mutations in human cancer. *Elife*. 2014 Oct 1;3. doi: 10.7554/eLife.02935. \*David Bowen is a member of this group

23. Mark W Drummond, Christopher Pocock, Marjorie Boissinot, Juliet Mills, Julia Brown, Pierre

- Cauchy, Nicholas CP Cross, Susanne Hartley, Jonathan Kell, Alexander Szubert, Peter N Cockerill, David T Bowen. A Multi-Centre Phase 2 Study of Azacitidine in Chronic Myelomonocytic Leukaemia. *Leukemia* 2014; 28, 1570-1572.
24. Marlous van Laar, Richard Feltbower, Chris Gale, David Bowen, SE Oliver, and Adam Glaser. Cardiovascular sequelae in long term survivors of young people's cancer - a linked cohort study. *British Journal of Cancer* 2014; 110, 1338-1341.
25. Dennis M, Culligan D, Karamitros D, Vyas P, Johnson P, Russell NH, Cavenagh J, Szubert A, Hartley S, Brown J, Bowen D. Lenalidomide monotherapy and in combination with cytarabine, daunorubicin and etoposide for high-risk myelodysplasia and acute myeloid leukaemia with chromosome 5 abnormalities. *Leukemia Research Reports*. 2013;2: 70-4
26. Nangalia J, Massie CE, Baxter EJ, Nice FL, Gundem G, Wedge DC, Avezov E, Li J, Kollmann K, Kent DG, Aziz A, Godfrey AL, Hinton J, Martincorena I, Van Loo P, Jones AV, Guglielmelli P, Tarpey P, Harding HP, Fitzpatrick JD, Goudie CT, Ortmann CA, Loughran SJ, Raine K, Jones DR, Butler AP, Teague JW, O'Meara S, McLaren S, Bianchi M, Silber Y, Dimitropoulou D, Bloxham D, Mudie L, Maddison M, Robinson B, Keohane C, Maclean C, Hill K, Orchard K, Tauro S, Du MQ, Greaves M, Bowen D, Huntly BJ, Harrison CN, Cross NC, Ron D, Vannucchi AM, Papaemmanuil E, Campbell PJ, Green AR. Somatic CALR mutations in myeloproliferative neoplasms with nonmutated JAK2. *New England Journal of Medicine*. 2013; 369:2391-405
27. Whittle AM, Feyler S, Bowen DT. Durable second complete remissions with oral melphalan in hypocellular Acute Myeloid Leukemia and Refractory Anemia with Excess Blast with normal karyotype relapsing after intensive chemotherapy. *Leukemia Research Reports*. 2013; 2: 9-11
28. SB Killick, C Carter, D Culligan, C Dalley, E Das-Gupta, M Drummond, H Enright, GL Jones, J Kell, J Mills, G Mufti, J Parker, K Raj, A Sternberg, P Vyas and D Bowen. Guidelines for the Diagnosis and Management of Adult Myelodysplastic Syndromes. *British Journal of Haematology*. 2014; 164: 503-525.
29. Ros Wade, Micah Rose, Aileen Rae Neilson, Lisa Stirk, Rocio Rodriguez-Lopez, David Bowen, Dawn Craig, Nerys Woolacott. Ruxolitinib for the Treatment of Myelofibrosis: A NICE Single Technology Appraisal. *PharmacoEconomics* 2013; 31: 841-852.
30. Elli Papaemmanuil; Moritz Gerstung; Luca Malcovati; Sudhir Tauro; Gunes Gundem; Peter Van Loo; Chris J Yoon; Peter Ellis; David C Wedge; Andrea Pellagatti; Adam Shlien; Michael Groves; Simon A Forbes; Keiran Raine; Sarah O'Meara; Laura J Mudie; Claire Hardy; Calli Latimer; Jon Hinton; David R Jones; Adam P Butler; Jon W Teague; Anna Galli; Matteo G. Della Porta; Ilaria Ambaglio; Lynn Quek; Alex Sternberg; Gunilla Walldin; Carlo Gambacorti-Passerini; Nicholas CP Cross; Anthony R Green; Jacqueline Boulwood; Paresch Vyas; Eva Hellstrom-Lindberg; David Bowen; Mario Cazzola; Michael R Stratton; Peter J Campbell. Clinical and biological implications of driver mutations in myelodysplastic syndromes. *Blood* 2013; 122: 3616-3627.
31. Luca Malcovati, Eva Hellström-Lindberg, David Bowen, Lionel Adès, Jaroslav Cermak, Consuelo del Cañizo, Matteo G. Della Porta, Pierre Fenaux, Norbert Gattermann, Ulrich Gerning, Joop H. Jansen, Moshe Mittelman, Ghulam Mufti, Uwe Platzbecker, Guillermo F. Sanz, Dominik Selleslag, Mette Skov-Holm, Reinhard Stauder, Argiris Symeonidis, Arjan, A. van de Loosdrecht, Theo de Witte and Mario Cazzola. Diagnosis and treatment of primary myelodysplastic syndromes in adults. Recommendations from the European LeukemiaNet. *Blood* 2013; 122: 2943-64
32. Alan K. Burnett, Nigel H. Russell, Ann E. Hunter, Donald Milligan, Steven Knapper, Keith Wheatley, John Yin, Mary F. McMullin, Sahra Ali, David Bowen and Robert K. Hills. Clofarabine doubles the response rate in older patients with acute myeloid leukemia but does not improve survival. *Blood* 2013; 122: 1384-94.
33. Burnett AK, Hills RK, Hunter AE, Milligan D, Kell WJ, Wheatley K, Yin J, McMullin MF, Dignum H, Bowen D, Russell NH. The addition of gemtuzumab ozogamicin to low-dose Ara-C improves remission rate but does not significantly prolong survival in older patients with acute myeloid leukaemia: results from the LRF AML14 and NCRI AML16 pick-a-winner comparison. *Leukemia*. 2013; 27(1): 75-81
34. Fabio G. Liberante, Andrea Pellagatti, Viktoriya Boncheva, David Bowen, Ken I. Mills, Jacqueline Boulwood and Barbara-Ann Guinn. High and low, but not intermediate, PRAME expression levels are poor prognostic markers in myelodysplastic syndrome at disease presentation. *British Journal of Haematology* 2013, 162(2):282-5
35. Marjorie Boissinot, Martyn Inman, Aiden Hempshall, Sally R. James, Jason H. Gill, Peter Selby, David T. Bowen, and Ronald Grigg, Peter N. Cockerill. Induction of differentiation and apoptosis in leukaemic cell lines by the novel benzamide family histone deacetylase 2 and 3 inhibitor MI-192. *Leukemia Research* 2012, 36, 1304-1310
36. Arjan A van de Loosdrecht, Robin Ireland, Wolfgang Kern, Matteo G Della Porta, Canan Alhan,

Jan Sebastian Balleisen, Peter Bettelheim, David T Bowen, Kate Burbury, Lisa Eidenschink, Mario Cazzola, Spencer SC Chu, Matthew Cullen, Jevon A Cutler, Angelika M Dräger, Jean Feuillard, Pierre Fenaux, Patricia Font, Ulrich Germing, Detlef Haase, Eva Hellström-Lindberg, Ulrika Johansson, Shahram Kordasti, Michael R Loken, Luca Malcovati, Mufti, Veselka Nikolova, Kiyoyuki Ogata, Uta Oelschlaegel, Alberto Orfao, Psarra, Stephen J Richards, Dolores Subirá, John F Seymour, Vicky Tindell, G te Marvelde, Sergio Matarraz, Timothy Milne, Bijan Moshaver, Ghulam J Gert J Ossenkoppele, Anna Porwit, Uwe Platzbecker, Frank Preijers, Katherina, Teresa Vallespi, Peter Valent, Vincent HJ van der Velden, Denise A Wells, Theo M de Witte, Florian Zettl, Marie C Béné and Theresa M Westers. Rationale for the clinical application of flow cytometry in patients with Myelodysplastic syndromes; position paper of an International Consortium and the European LeukemiaNet Working Group. *Leukemia and Lymphoma* 2013, 54(3):472-5.

37. Kathryn Hall, Karen J. Scott, Ailsa Rose, Michael Desborough, Kevin Harrington, Hardev Pandha, Christopher Parrish, Richard Vile, Matt Coffey, David Bowen, Fiona Errington-Mais, and Alan A. Melcher. Reovirus-Mediated Cytotoxicity and Enhancement of Innate Immune Responses Against Acute Myeloid Leukemia; *BioResearch Open Access* 2012, 1; 3-15

38. Peter L. Greenberg, Heinz Tuechler, Julie Schanz, Guillermo Sanz, Guillermo Garcia-Manero, Francesc Solé, John M. Bennett, David Bowen, Pierre Fenaux, Francois Dreyfus, Hagop Kantarjian, Andrea Kuendgen, Alessandro Levis, Luca Malcovati, Mario Cazzola, Jaroslav Cermak, Christa Fonatsch, Michelle M. Le Beau, Marilyn L. Slovak, Otto Krieger, Michael Luebbert, Jaroslav Maciejewski, Silvia M.M. Magalhaes, Yasushi Miyazaki, Michael Pfeilstöcker, Mikkael Sekeres, Wolfgang R. Sperr, Reinhard Stauder, Sudhir Tauro, Peter Valent, Teresa Vallespi, Arjan A. van de Loosdrecht, Ulrich Germing, and Detlef Haase. Revised International Prognostic Scoring System (IPSS-R) for Myelodysplastic Syndromes. *Blood* 2012, 120, 2454 – 2465.

39. Thol F, Yun H, Sonntag AK, Damm F, Weissinger EM, Krauter J, Wagner K, Morgan M, Wichmann M, Göhring G, Bug G, Ottmann O, Hofmann WK, Schambach A, Schlegelberger B, Haferlach T, Bowen D, Mills K, Ganser A, Heuser M. Prognostic significance of combined MN1, ERG, BAALC, and EVI1 (MEBE) expression in patients with myelodysplastic syndromes. *Ann Hematol.* 2012 91(8):1221-33

40. Luca Malcovati, Elli Papaemmanuil, David T. Bowen, Jacqueline Boulwood, Matteo G. Della Porta, Cristiana Pascutto, Erica Travaglino, Michael J. Groves, Anna L. Godfrey, Ilaria Ambaglio, Anna Galli, Matteo C. Da Vià, Simona Conte, Sudhir Tauro, Norene Keenan, Ann Hyslop, Jonathan Hinton, Laura J. Mudie, James S. Wainscoat, P. Andrew Futreal, Michael R. Stratton, Peter J. Campbell, Eva Hellström-Lindberg and Mario Cazzola. Clinical significance of SF3B1 mutations in myelodysplastic syndromes and myelodysplastic/myeloproliferative neoplasms. *Blood* 2011, 118(24):6239-46

41. Elli Papaemmanuil, Mario Cazzola, Jacqueline Boulwood, Luca Malcovati, Paresh Vyas, David Bowen, Andrea Pellagatti, James S. Wainscoat, Eva Hellstrom-Lindberg, Carlo Gambacorti-Passerini, Anna L. Godfrey, Inmaculada Rapado, Ana Cvejic, Richard Rance, Chris McGee, Peter Ellis, Laura J. Mudie, Philip J. Stephens, Stuart McLaren, Charles E. Massie, Patrick S. Tarpey, Ignacio Varela, Serena Nik-Zainal, Helen R. Davies, Adam Shlien, David Jones, Keiran Raine, Jon Hinton, Adam P. Butler, Jon W. Teague, E. Joanna Baxter, Joannah Score, Anna Galli, Matteo G. Della Porta, Erica Travaglino, Michael Groves, Sudhir Tauro, Nikhil C. Munshi, Kenneth C. Anderson, Adel El-Naggar, Andrej Fischer, Ville Mustonen, Alan J. Warren, Nicholas C.P. Cross, Anthony R. Green, P. Andrew Futreal, Michael R. Stratton, Peter J. Campbell. Somatic Mutation of SF3B1 in Myelodysplasia with Ring Sideroblasts. *New England Journal of Medicine* 2011 365, 1384-1395.

42. Pierre Fenaux, Aristotle Giagounidis, Dominik Selleslag, Odile Beyne-Rauzy, Ghulam Mufti, Moshe Mittelman, Petra Muus, Peter te Boekhorst, Guillermo Sanz, Consuelo del Cañizo, Agnes Guerci-Bresler, Lars Nilsson, Uwe Platzbecker, Michael Lübbert, Bruno Quesnel, Mario Cazzola, Arnold Ganser, David Bowen, Brigitte Schlegelberger, Carlo Aul, Robert Knight, John Francis, Tommy Fu, and Eva Hellström-Lindberg, for the MDS-004 Lenalidomide del5q Study Group. A randomized phase 3 study of lenalidomide versus placebo in RBC transfusion-dependent patients with Low-/Intermediate-1-risk myelodysplastic syndromes with del5q. *Blood* 2011 118, 3765-3776

43. A K Burnett, R K Hills, A Hunter, D Milligan, J Kell, K Wheatley, J Yin, M-F McMullin, P Cahalin, J Craig, D Bowen and N Russell. The addition of arsenic trioxide to low-dose Ara-C in older patients with AML does not improve outcome. *Leukemia* 2011 25: 1122-1127

44. Goardon N, Marchi E, Atzberger A, Quek L, Schuh A, Soneji S, Woll P, Mead A, Alford KA, Rout R, Chaudhury S, Gilkes A, Knapper S, Beldjord K, Begum S, Rose S, Geddes N, Griffiths M, Standen G, Sternberg A, Cavenagh J, Hunter H, Bowen D, Killick S, Robinson L, Price A, Macintyre E, Virgo P, Burnett A, Craddock C, Enver T, Jacobsen SE, Porcher C, Vyas P. Coexistence of LMPP-like and GMP-like Leukemia Stem Cells in Acute Myeloid Leukemia. *Cancer Cell* 2011;19:138-152

Chapters / reviews

Cargo C, Bowen D. Individual risk assessment in MDS in the era of genomic medicine. *Seminars in*

## Hematology, 2017

Cerreta F and Bowen D. European Medicines Agency; regulatory perspective on geriatric medicine, In Developing Drug Products in an Aging Society: From Concept to Prescribing. Ed S Stegemann. Springer 2016

Bowen DT. Occupational and environmental etiology of MDS. Myelodysplastic Syndromes State of the Art; pathology, diagnosis and management. Balliere's 2013. Ed Pierre Fenaux.

Bowen D. Management of low-risk MDS in Myelodysplastic Syndromes (Springer). 2nd edition, Ed. J Deeg 2013

## Projects

## Memberships

## INTERNATIONAL

## Academic / clinical collaborations

- Steering Committee Member International Cancer Genome Project Chronic Myeloid Disorders (2010-)
- Steering Committee Member International Working Group for Prognosis in Myelodysplastic Syndromes (IWG-PM, 2008-)
- Co-chair, Steering Committee EU Network of Excellence LeukemiaNet (ELN) 2004- EUMDS Registry
- Steering Group member European Guidelines for Management of MDS 2005-2013 DMC/TSC global studies
- Chair, Data Monitoring Committee AMGEN 20090160 Phase 3 clinical trial 2011-2014
- Chair, Data Monitoring Committee MORPHOSYS MOR202C101 clinical trial 2011-2014
- Medical Monitor AZFAST 101 clinical trial, 2011
- Trial Steering Committee member TELESTO global phase 3 trial, Novartis (Deferasirox) 2014
- Expert Independent MILE study MDS project, ROCHE Diagnostics / ELN 2006

## Pathological Reviewer

## International Academic meeting invitations

- Chairman 11th International MDS Symposium, Edinburgh 2011
- MDS Educational Session Chair European Haematology Association Meeting (EHA 2006 & 2013)
- Invited Speaker, International MDS Scientific Meeting, 2005, 2007, 2009, 2013
- Abstract reviewer, American Society of Hematology Annual Meeting 2008,
- Chairman, Oral Presentations, American Society of Hematology Annual Meeting 2006, & Abstract reviewer 2004 and 2002
- Abstract Reviewer European Haematology Association Meeting (EHA 2006)
- Board Member, The MDS Foundation, NJ, USA, 2003 – 2012

## Editorial roles

- Senior Associate Editor, Leukemia Research (2009-2012)
- Editorial Board member Journal of Clinical Oncology (2011-2013), Haematologica (2005-2013) and Leukemia Research (2005-2013)

## NATIONAL

- MHRA OHEAG member 2017 -
- NICE Technology Appraisal Committee member (2013-)
- Clinical advisor to Evidence Review Group for NICE STA of ruxolitinib for myelofibrosis 2013
- NICE Clinical Expert: STA for lenalidomide in MDS with del(5q) 2013
- NICE Clinical Expert: STA for azacitidine in high-risk MDS 2009 – 2011
- Chairman: NCRI MDS Subgroup 2008-2011
- National Cancer Research Institute (NCRI) Haematological Oncology Clinical Studies Group member (2002-2006 and 2008-2011)

- NCRI Adult Leukaemia Working Party member (2002-)
- Trials Steering Group Member NBS/MRC Trial “A randomised trial of prophylactic versus no prophylactic platelet transfusions in patients with haematological malignancies”
- Independent Safety Reviewer (SUSAR / SAE): MRC Myeloma IX study 2005-2008
- Leukaemia Research Fund Clinical Trials Advisory Panel member (2004-2007)
- Chairman: Drafting Group, British Committee for Standards in Haematology Guidelines for the Management of Myelodysplastic Syndromes

#### Other Relevant Information