

CURRICULUM VITAE for Dr MARK W DRUMMOND

PERSONAL PROFILE

I have been in post as an NHS Consultant Haematologist since May 2006. I am currently part of a team of 7 WTE Haematologists delivering comprehensive haematological care to patients with all forms of Blood Cancer at the Beatson Cancer Centre and manage a large general haematology practice at Gartnavel General and Spire Murrayfield Hospitals. As part of a team, I contribute to the haematology service for the Golden Jubilee National Hospital (mainly coagulation issues in orthopaedic and cardiovascular cases). I have 25 years' experience in clinical haematology, and do two busy general haematology clinics per week, as well as 3 haemato-oncology clinics, dealing with all aspects of the speciality (including thrombosis and anticoagulation) and treating all blood cancer types (myeloma, lymphoma, leukaemia etc). As part of a large hospital network I regularly advise other specialists on haematological aspects of patient care (e.g. surgical and medical patients).

Medicolegal Experience

I have been authoring expert Medicolegal Reports for 9 years (started 2015) and have completed over 200, on all aspects of haematology and from all parts of the UK (Scotland, England & Ireland). My Claimant / Defendant ratio is 60:40. I am happy to see and examine Claimants which I usually do in either Edinburgh or Glasgow and I also offer Zoom consultations. Report turnaround time is typically 6 weeks. I have experience in preparing joint expert statements with the other party. To date I have attended Coroner's Inquests in an Expert capacity.

PERSONAL DETAILS

Home Address: 66 Corroul Road, Newlands, Glasgow G43 2ED

Date of Birth: 26th October 1967

GMC Number: 3687657

Work & Contact Details: Beatson Cancer Centre, 1053 Great Western Road, Glasgow G12 0YN. *Postal address: Haematology Laboratories, 2nd Floor Laboratory Building, Gartnavel General Hospital, 21 Shelley Road, Glasgow G12 0XL.*

Email: mark.drummond@ggc.scot.nhs.uk, Tel: 0141 301 7734 (office); 0141 301 7712 (Secretary) Fax: 0141 301 7718. Mobile: 07903988658.

CURRENT POST

May 2006-Present: Consultant Haematologist & Honorary Senior Lecturer, Beatson West of Scotland Cancer Centre

QUALIFICATIONS

BSc (Hons), University of Glasgow 1990

MB ChB, University of Glasgow 1992

MRCP (UK), February 1995

PhD, December 2003, University of Glasgow, Winner of the Bellahouston Medal (2003-2004), awarded as the highest distinction for a thesis submitted by a medical or dental graduate. Thesis entitled: "Telomere dynamics and telomerase in chronic myeloid leukaemia"

FRCPath, September 2005.

PREVIOUS POSTS

August 1993/July 1995	SHO in General Medicine on West Glasgow Hospitals University Trust medical rotation,
August 1995/July 1996	SHO III- General Medicine with Haematology, Dr J Dagg, Gartnavel General Hospital.
August 1996/December 1996	Registrar in General Medicine, Napier Hospital, Napier, New Zealand
December 1996/ December 1997	Registrar in South Island Bone Marrow Transplant & Clinical Haematology Unit, Christchurch Public Hospital, Christchurch, New Zealand
April 1998/August 1998	Locum Associate Specialist, Clinical Apheresis Unit & Blood Transfusion Service, Glasgow Royal Infirmary
August 1998/February 1999	Experienced SHO Haematology, Stobhill NHS Trust
February 1999/May 2006	Haematology SpR, West of Scotland Rotation.
May 2000/July 2003	Clinical Research Fellow (LRF), Division of Cancer Sciences and Molecular Pathology, Glasgow Royal Infirmary.

REGIONAL & NATIONAL COMMITTEES / BODIES

- Member of British Society of Haematology, Royal College of Pathologists and British Medical Association
- Lead Clinician, Blood Cancers, WoSCAN (2014-2019)
- Chair North Glasgow MDT (2013-present)
- Molecular Pathology Evaluation Panel (NHS Scotland, 2014-present)
- UK NCRN MDS Clinical Trial Subgroup Committee Member (2008-2014)
- UK NCRN MPD Clinical Trial Subgroup Committee Member (2013-present)
- Speciality Advisor at Invitation of Scottish Medicines Consortium
- Advisor for QIS Scotland to NICE
- QPI development group for Acute Leukaemia
- Chair, Regional Diagnostics Subgroup of WoSCAN
- Meetings Secretary, Scottish Haematology Society (2010-2015).

PUBLICATIONS

1. *Clark FL, **Drummond MW**, Chambers S, Chapman BA, Patton WN.* Successful treatment with lamivudine for fulminant reactivated hepatitis B infection following intensive therapy for high-grade non Hodgkins lymphoma. *Ann Oncol* 1998; 9: 385-387.
2. ***Drummond MW**, Spearing R.* Arterial Thrombosis, GM-CSF and the Lupus Anticoagulant. *Am J Haem* 2000. 64:143.
3. ***Drummond MW**, Green R.* Plasma Exchange in a Jehovah's Witness with TTP. *Journal of Clinical Apheresis*. 15: 2000. 266-267.
4. ***Drummond MW**, Holyoake TL.* Tyrosine kinase inhibitors in the treatment of chronic myeloid leukaemia: so far so good? *Blood Reviews* 2001, 15: 1-11.
5. *Holyoake TL, Jiang X, **Drummond MW**, Eaves AC, Eaves CJ.* Elucidating critical mechanisms of deregulated stem cell turnover in the chronic phase of CML. *Leukaemia*. 2001. 16: 549-558.
6. ***Drummond MW**, Hendry LM, Maher E, Holyoake TL.* BCR-ABL FISH monitoring of CML: a survey of current UK practice. *Brit J Haematol*. 2002. 119: 272-273.
7. ***Drummond MW**, Lush CJ, Vickers MA, Reid FM, Kaeda J, Holyoake TL.* Imatinib mesylate (Gleevec®) - induced molecular remission of Philadelphia chromosome-positive myelodysplasia. *Leukemia*. 2003. 17: 463-465.
8. *Drummond A, Micallef-Eynaud P, Douglas WS, Murphy JA, Hay I, Holyoake TL, **Drummond MW**.* A spectrum of cutaneous reactions to the tyrosine kinase inhibitor imatinibmesylate. *Br J Haematol*. 2003. 120: 911-912.
9. *Lin F, **Drummond MW**, O'Brien SG, Cervantes F, Goldman JM, Kaeda, JS.* Molecular monitoring in CML patients who achieve complete cytogenetic remission on imatinib. *Blood*. 2003. 102: 1143.
10. ***Drummond MW**, Marin D, Byrne J, Clark R, Goldman J, Holyoake TL, Lennard A.* Collection of Ph⁻ peripheral blood stem cells in CML patients rendered Ph⁻ after treatment with imatinibmesylate. A report on behalf of the UK CML Working Party. *Brit J Haematol*. 2003. 123:479-83.
11. ***Drummond MW**, Holyoake TL.* Cytogenetic response to imatinib and treatment choice in chronic myeloid leukemia. *Cancer*. 2003 Oct 15;98:1776-7
12. ***Drummond MW**, Lennard A, Bruemendorf TH, Holyoake TL.* Telomere shortening correlates with prognostic score and proceeds rapidly during the progression of CML. *Leukemia& Lymphoma* 2004 .45:1775-1781.
13. ***Drummond MW**, Hoare SF., Monaghan A, Graham SM, Alcorn MJ, Keith WN, Holyoake TL.* Dysregulated expression of the major telomerase components in leukaemic stem cells. *Leukemia*, 2005 19:381-9.

14. **Drummond MW**, Balabanov S, Holyoake TL, Brummendorf TH. Telomere biology in normal and leukemic hematopoietic stem cells. *Stem Cells*. 2007 May 17; [Epub ahead of print]
15. Shepherd P, Dhanapala C, Maguire C, White J, **Drummond MW**, Holyoake TL, Johnson PRE. Successful Use of National Cancer Registry Data to Monitor the Effective Use of Imatinib for treating CML. *Scottish Medical Journal*. 2008; 53:8-12.
16. A. Barlow, M. Robertson, **M Drummond**. Isolated CNS lymphoid blast crisis in CML in major molecular remission. *British Journal of Haematology* 2008; 142: 327.
17. Gallipoli P, **Drummond MW**, Leach M. Haemophagocytosis and relapsed peripheral T cell lymphoma. *Eur J Haematol*. 2009 Mar;82(3):246.
18. Gallipoli P, **Drummond MW**. Pseudotumor cerebri as a manageable side effect of all-trans retinoic acid therapy in an adult patient with acute promyelocytic leukaemia. *Eur J Haematol*. 2009 Mar;82(3):242-3.
19. **Drummond MW** Heaney N, Kaeda J, Nicolini FE, Clark RE, Wilson G, Shepherd P, Tighe J, McLintock L, Hughes T, Holyoake TL. A pilot study of continuous imatinib mesylate vs. pulsed imatinib with or without rHu-G-CSF in CML patients who have achieved a complete cytogenetic response (GIMI). *Leukemia*. 2009 Jun;23(6):1199-201. NCRN Badged Investigator Led Clinical Trial EudraCT (Trial 2004-000179-33).
20. Percy MJ, Butt NN, Crotty GM, **Drummond MW**, Harrison C, Jones GJ, Wallis J, McMullin MF. Identification of high affinity hemoglobin variants in the investigation of patients with erythrocytosis. *Haematologica*. 2009 Sep;94(9):1321-2.
21. Fyfe A, Morris A, **Drummond MW**. Successful Routine Cytogenetic Analysis from Trepchine Biopsy Specimens Following Failure to Aspirate Bone Marrow. *British journal of Haematology* 2009; 146:579
22. **Drummond, MW**. How to treat CMML. (Invited review, *Myeloproliferative Disorders*. 2009;3:3-5)
23. Murray F, Nunn K, Magill LJ, **Drummond MW**. Furtive Bleeding. *Am J Med*. 2009 Aug;122(8):729-31.
24. Foo, J. **Drummond MW**, Clarkson B, Holyoake T, Michor F. Eradication of Chronic Myeloid Leukemia Stem Cells: A Novel Mathematical Model Predicts No Therapeutic Benefit of Adding G-CSF to Imatinib. *PLOS Computational Biology*, 2009; 5: 1-11.
25. Dragana Milojkovic, Emma Nicholson, Jane F Apperley, Tessa L Holyoake, Pat Shepherd, **Mark W Drummond**, Richard Szydlo, Marco Bua, Letizia Foroni, Alistair Reid, Jamshid S. Khorashad, Hugues de Lavallade, Katie Rezvani, Christos Paliompeis, John M Goldman and David Marin. Early prediction of success or failure using second generation tyrosine kinase inhibitors for chronic myeloid leukaemia. *Haematologica* 2010 Feb;95(2):224-31
26. Nicholson F, Heaney N, **Drummond MW**. Management of Myelodysplastic / Myeloproliferative Disorders. (Invited review, *Myeloproliferative Disorders*. 2010)
27. Todd M, Welsh J, **Drummond MW**. Primary lymphoedema & acute leukaemia – is there a link? *Lymphology*. 2010,43(1):42-44.
28. Harrison CN, Bareford D, Butt N, Campbell P, Conneally E, **Drummond MW**, Erber W, Everington T, Green AR, Hall GW, Hunt BJ, Ludlam CA, Murrin R, Nelson-Piercy C, Radia DH, Reilly JT, Van der Walt J, Wilkins B, and McMullin MF. Guideline for investigation and management of adults and children presenting with a thrombocytosis. *British Journal of Haematology*. 2010;149:352-375.
29. Gallipoli P, Shepherd P, Irvine D, **Drummond M**, Holyoake T. Restricted access to second generation tyrosine kinase inhibitors in the UK could result

- in suboptimal treatment for almost half of chronic myeloid leukaemia patients: results from a West of Scotland and Lothian population study. *British Journal of Haematology*; 2011 Oct;155(1):128-30.
30. *Shah M, Holyoake TL, Jackson B, **Drummond MW***. Smouldering Systemic Mastocytosis presenting with Cryptic Life Threatening Crises: Case Report and Literature Review. *Scottish Medical Journal*, 2012 Feb 57; 60.
 31. *Ahmad FA, **Drummond MW***. Reversible nicorandil induced perianal ulceration in acute myeloid leukaemia. *Leuk Lymphoma*. 2012 Feb;53(2):334-5.
 32. *Harrison CN, Butt N, Campbell P, Conneally E, **Drummond M**, Green AR, Murrin R, Radia DH, Reilly JT, McMullin MF*. Diagnostic Pathway for the Investigation of thrombocytosis. *BJH*, 2013;161: 604-606.
 33. *Gallipoli P, **Drummond MW**, Holyoake TL*. Pulsed imatinib with or without G-CSF is a safe treatment approach and potentially improves molecular responses in CML patients in complete cytogenetic response compared to continuous imatinib: results from 5 years follow-up of a pilot study (GIMI). *BJH*. 2013; 163: 674-676.
 34. *SB Killick, C Carter, D Culligan, C Dalley, E Das-Gupta, **M Drummond**, H Enright, G Jones, J Kell, J Mills, G Mufti, J Parker, K Raj, A Sternberg, P Vyas, D Bowen*. Guidelines for the Diagnosis and Management of Myelodysplastic Syndromes. *Br J Haematol*. 2014;164(4):503-25.
 35. ***Drummond MW**, Pocock C, Boissinot M, Mills J, Brown J, Cauchy P, Cross NCP, Hartley S, Kell J, Szubert A, Cockerill PN, Bowen DT*. A Multi-Centre Phase 2 Study of Azacitidine in Chronic Myelomonocytic Leukaemia. *Leukemia*. 2014 Feb 26. doi: 10.1038/leu.2014.85.
 36. *Pardanani A, Harrison C, Cortes JE, Cervantes F, Mesa R, Milligan D, Masszi T, Mishchenko E, Jourdan E, Vannucchi AM, **Drummond MW**, Jurgutis M, Kuliczowski K, Gheorghita E, Passamonti F, Neumann F, Patki A, Gao G, Tefferi A*. Safety and Efficacy of Fedratinib in Patients With Primary or Secondary Myelofibrosis: A Randomized Clinical Trial. *JAMA oncology* 2015; 1(5). DOI: 10.1001/jamaoncol.2015.1590
 37. *Andreef 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, Gonzalez GM, Huang X, Chen G, Graves B, Blotner S, Bridge P, Jukofsky L, Middleton S, Reckner M, 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 Feb 15;22(4):868-76. doi: 10.1158/1078-0432.CCR-15-0481
 38. *Yan Beauverd, Deepti Radia, Catherine Cargo, Steve Knapper, **Mark Drummond**, Arvind Pillai, Claire Harrison, Susan Robinson*. Pegylated Interferon Alpha-2A For Essential Thrombocythaemia During Pregnancy, Outcome And Safety: A Case Series. *Haematologica* January 2016: **Doi:10.3324/haematol.2015.139691**
 39. *Reis B, Jukofsky L, Chen G, Martinelli G, Zhong H, So V, Dickinson MJ, **Drummond M**, Assouline S, Hashemyan M, Theron M, Blotner S, Lee JH, Kasner M, Yoon SS, Rueger R, Seiter K, Middleton SA, Kelly KR, Vey N, Yee K, Nichols G, Chen LC, Pierceall WE*. Acute myeloid leukemia patient clinical response to idasanutlin (RG7388) is associated with pre-treatment MDM2 protein expression in leukemic blasts. *Haematologica* 2016 May;101(5):e185-8. doi: 10.3324/haematol.2015.139717.
 40. *Mascarenhas J, Hoffman R, Talpaz M, Gerds AT, Stein B, Gupta V, Szoke A, **Drummond M**, Pristupa A, Granston T, Daly R, Al-Fayoumi S, Callahan JA, Singer JW, Gotlib J, Jamieson C, Harrison C, Mesa R, Verstovsek S*. Pacritinib Versus Best Available Therapy, Including Ruxolitinib, in Patients with Myelofibrosis: A Randomized Clinical Trial. *JAMA Oncology*, 2018 May 1;4(5):652-659

41. DJ DeAngelo, Jason Gotlib, Deepti Radia, Albert T. Quiery, William A. Robinson, **Mark W. Drummond**, Elizabeth Hexner, Hongliang Shi, Oleg Schmidt-Kittler, Erica Evans, Maureen G. Conlan, Beni B. Wolf, Michael W. Deininger, Srdan Verstovsek. Selective inhibition of KIT D816 with avapritinib in advanced systemic mastocytosis. *Re-Submitted April 2019*.
42. Karen Yee, Cristina Papayannidis, Norbert Vey, Michael J. Dickinson, Kevin R. Kelly, Sarit Assouline, Margaret Kasner, Karen Seiter, **Mark W. Drummond**, Sung-Soo Yoon, Je-Hwan Lee, Steven Blotner, Lori Jukofsky, William E. Pierceall, Jianguo Zhi, Brian Higgins, Gwen Nichols, Annabelle Monnet, Susanne Muehlbauer, Marion Ott, Lin-Chi Chen, Giovanni Martinelli. MDM2 inhibition alone or in combination with cytarabine for the treatment of patients with acute myeloid leukemia: results from the idasanutlin phase 1/1b study. *Submitted Lancet Oncology, May 2019*.
43. C Harrison, A Mead, **M W Drummond**, G Chiu, Rozinder Bains. A Physician Survey on the application of the BSH Guidelines for the diagnosis and management of myelofibrosis in the UK. *British Journal of Haematology, 2020, 188, e105-e109*.
44. Defining the Optimal Total Number of Chemotherapy Courses in Younger Patients With Acute Myeloid Leukemia: A Comparison of Three Versus Four Courses. *Journal of Clinical oncology 2020: 39(8)*. **M Drummond**, 1 of 13 authors
45. DJ DeAngelo, Jason Gotlib, Deepti Radia, Albert T. Quiery, William A. Robinson, **Mark W. Drummond**, Elizabeth Hexner, Hongliang Shi, Oleg Schmidt-Kittler, Erica Evans, Maureen G. Conlan, Beni B. Wolf, Michael W. Deininger, Srdan Verstovsek. Safety & Efficacy of avapritinib in advanced systemic mastocytosis” the Phase 1 EXPLORER trial. *Nature Medicine 2021; 27(12):1-9*
46. Karen Yee, Cristina Papayannidis, Norbert Vey, Michael J. Dickinson, Kevin R. Kelly, Sarit Assouline, Margaret Kasner, Karen Seiter, **Mark W. Drummond**, Sung-Soo Yoon, Je-Hwan Lee, Steven Blotner, Lori Jukofsky, William E. Pierceall, Jianguo Zhi, Brian Higgins, Gwen Nichols, Annabelle Monnet, Susanne Muehlbauer, Marion Ott, Lin-Chi Chen, Giovanni Martinelli. MDM2 inhibition alone or in combination with cytarabine for the treatment of patients with acute myeloid leukemia: results from the idasanutlin phase 1/1b study. *Leukaemia Research 2021. 100(7)*
47. Combination romidepsin and azacitidine therapy is well tolerated and clinically active in adults with high-risk acute myeloid leukaemia ineligible for intensive chemotherapy. Loke et al (**M Drummond**, one of 13 authors). *British Journal of Haematology 2021. 196(6)*.
48. Real-world tyrosine kinase inhibitor treatment pathways, monitoring patterns and responses in patients with chronic myeloid leukaemia in the United Kingdom: the UK TARGET CML study. **M Drummond** (1 of 22 authors). *British Journal of Haematology 2021. 192: 62-74*.
49. Updated results of the placebo-controlled, phase III JAKARTA trial of fedratinib in patients with intermediate-2 or high-risk myelofibrosis. Pardanani et al (**M Drummond** 1 of 14 authors). *British Journal of Haematology 2021: 195(1)*.
50. Longitudinal trends of peripheral blood counts in polycythaemia vera and essential thrombocythaemia patients in the UK. **M Drummond**, 1 of 11 authors. *European Journal of Haematology 2022; 3: 785-793*.
51. Ruxolitinib Versus Best Available Therapy for Polycythemia Vera Intolerant or Resistant to Hydroxycarbamide in a Randomized Trial. Harrison, Claire et al. **M Drummond** 1 of 33 authors. *Journal of clinical oncology : official journal of the American Society of Clinical Oncology. 41. 2023. JCO2201935. 10.1200/JCO.22.01935*.

52. Fang Z, Corbizi Fattori G, McKerrell T, Boucher RH, Jackson A, Fletcher RS, Forte D, Martin JE, Fox S, Roberts J, Glover R, Harris E, Bridges HR, Grassi L, Rodriguez-Meira A, Mead AJ, Knapper S, Ewing J, Butt NM, Jain M, Francis S, Clark FJ, Coppell J, McMullin MF, Wadelin F, Narayanan S, Milojkovic D, **Drummond MW**, Sekhar M, EIDaly H, Hirst J, Paramor M, Baxter EJ, Godfrey AL, Harrison CN, Méndez-Ferrer S. Tamoxifen for the treatment of myeloproliferative neoplasms: A Phase II clinical trial and exploratory analysis. *Nat Commun*. 2023 Nov 25;14(1):7725. doi: 10.1038/s41467-023-43175-5. PMID: 38001082; PMCID: PMC10673935.
53. Single-cell multi-omics identifies chronic inflammation as a driver of TP53-mutant leukemic evolution. Meira et al. **M Drummond** 1 of 34 authors (2023). *Nature Genetics*. 55. 1-11. 10.1038/s41588-023-01480-1.
54. Chromothripsis orchestrates leukemic transformation in blast phase MPN through targetable amplification of DYRK1A. Brierley, Charlotte et al. **M Drummond** 1 of 14 authors. (2023). Chromothripsis orchestrates leukemic transformation in blast phase MPN through targetable amplification of DYRK1A. *bioRxiv : the preprint server for biology*. 10.1101/2023.12.08.570880.
55. Tamoxifen for the treatment of myeloproliferative neoplasms: A Phase II clinical trial and exploratory analysis. Fang et al. **M Drummond** 1 of 36 authors. (2023). *Nature Communications*. 14. 10.1038/s41467-023-43175-5.

BOOKS, COMMERCIAL PUBLICATIONS & BOOK CHAPTERS

56. Fluorescence in situ Hybridisation for *BCR ABL*. **Drummond MW**, Allan E, Pearce, A. *Holyoake TL*. 2004. *Methods Mol Med*. 2004;97:103-16
57. Practical Flow Cytometry in Haematology Diagnosis. Leach M, **Drummond MW**, Doig A. Wiley Blackwell, ISBN-10: 0470671203, ISBN-13: 978-0470671207, March 2013.
58. Flow Cytometry in haematology Diagnosis: 100 Worked Examples. Leach M, **Drummond MW**, Doig A, McKay P, Jackson B, Bain B. Wiley Blackwell 2015, ISBN: 978-1-118-74703-2.

RECENT SELECTED ABSTRACTS

59. Results of the Phase 1 Trial of RG7112, a Small-Molecule MDM2 Antagonist, in Acute Leukaemia. Andreeff M, Kelly KR, Yee K, Assouline S, Strair R, Popplewell L, Bowen D, Martinelli G, **Drummond MW**, Vyas P, Kirschbaum M, Iyer SP, Kojima K, Geho D, Blotner S, Cheng S, Vassilev L, Ding M, Zhi J, Middleton S, Nichols G. *ASH Abstract 675*, 2012.
60. CMML201: A Phase 2 trial of Azacitidine in CMML. **Drummond MW**, Boissinot M, Cauchy P, Cross NCP, Hartley S, Kell J, Pocock CFE, Szubert A, Cockerill PN, Bowen D. *EHA Abstract 0869*, 2012.
61. Cytogenetic Abnormalities in AML-the West of Scotland experience; early death continues to be significant in APL. Ogilvie C, Morris A, Gunaseelan V, **Drummond MW**. 2012, *BJH*; 157: 60 (abstr 154).

62. Time to initiation of intensive therapy has no impact on outcome in non-acute promyelocytic AML. Experience from the West of Scotland Cancer network. Rhodes SC, Ogilvie C, Wotherspoon H, **Drummond MW**. 2012, *BJH*; 157:61, abstr 155.
63. Results Of a Randomized, Double-Blind, Placebo-Controlled Phase III Study (JAKARTA) Of The JAK2-Selective Inhibitor Fedratinib (SAR302503) In Patients With Myelofibrosis (MF). A Pardanani, Claire N Harrison, Jorge E. Cortes, Francisco Cervantes, Ruben A. Mesa, Donald Milligan, TamásMasszi, Elena Mishchenko, Eric Jourdan, Alessandro M. Vannucchi, **Mark Drummond**, MindaugasJurgutis, Kazimierz Kuliczkowski, EmanuilGheorghita, Francesco Passamonti, Frank Neumann, Guozhi Gao, Ayalew Tefferi. 2013, ASH (Abstr 393). Oral presentation.
64. Phase 1b Study Of The MDM2 Antagonist RG7112 In Combination With 2 Doses/Schedules Of Cytarabine. Karen Yee, Giovanni Martinelli, SaritAssouline, Margaret Kasner, Norbert Vey, Kevin R. Kelly, **Mark W. Drummond**, Michael Dennis, Karen Seiter, Steven Blotner, Lori Jukofsky, Steven Middleton, JianguoZhi, Gong Chen, Hua Zhong, Gwen Nichols. 2013, ASH (Abstr 498). Oral presentation.
65. Symptom Burden and Health-Related Quality Of Life (HRQoL) In Patients With Myelofibrosis (MF) Treated With Fedratinib (SAR302503) In a Phase III Study (JAKARTA) Ruben A. Mesa, Jorge E. Cortes, Francisco Cervantes, Donald Milligan, TamásMasszi, Elena Mishchenko, Eric Jourdan, Alessandro M. Vannucchi, **Mark Drummond**, MindaugasJurgutis, Kazimierz Kuliczkowski, Professor EmanuilGheorghita, Francesco Passamonti, Frank Neumann Florence Joulain, Sheikh Usman Iqbal, Claire N Harrison. 2013, ASH (Abstr 4061). Poster presentation.
66. Outcomes for Patients who Switched from Fedratinib to Ruxolitinib Therapy. Natalia Curto Garcia, Tim Somervaille, Clodagh Keohane, John Chadwick, Adam Mead, Susan Rhodes, **Mark Drummond**, Joanne Ewing, DeeptiRadia and Claire Harrison. 2014, EHA (Abstr 1619)
67. Phase 1/1b Study of RG7388, a Potent MDM2 Antagonist, in Acute Myelogenous Leukemia (AML) Patients. Karen Yee, Giovanni Martinelli, Norbert Vey, Michael J. Dickinson, Karen Seiter, SaritAssouline, **Mark Drummond**, Sung-Soo Yoon, MargaretKasner, M.D. Je-Hwan Lee, Kevin R. Kelly, Steven Blotner, Brian Higgins, Steven Middleton, Gwen Nichols, Gong Chen, Hua Zhong, William E. Pierceall, JianguoZhi, Lin-Chi Chen, MD, PhD. ASH 2014 (Abstr 116, oral presentation)
68. Phase 1b Dose-Escalation Study of Sonidegib (LDE225) in Combination with Ruxolitinib (INC424) in Patients with Myelofibrosis. Vikas Gupta, Steffen Koschmieder, Claire N. Harrison, Francisco Cervantes, Florian H Heidel, **Mark Drummond**, Jerome Rey, EunjuHurh, WeichaoBao, AnitaRampersad Stacey Kalambakas, Alessandro Maria Vannucchi. ASH 2014, Abstract 712, Oral presentation.
69. Characterising the Inflamasome in Polycythaemia Vera. Susan C Rhodes, RafaellaGavriilidou, **Mark W. Drummond**, Mhairi Copland, and Helen Wheadon. ASH 2015, Abstract 2827, Poster presentation.
70. Phase 1b Results Of Idasanutlin + Cytarabine (Ara-C) In Acute Myeloid Leukemia Patients. Giovanni Martinelli , Cristina Pappayannidis , Karen Yee , Norbert Vey , **Mark Drummond** , Kevin Kelly , Michael Dickinson , Je-Hwan Lee , Karen Seiter , Sung-Soo Yoon , SaritAssouline , Margaret Kasner , Gwen Nichols , Steven Middleton , Steven Blotner , JianguoZhi , William Pierceall , Lin-Chi Chen. EHA 2016, Abstract S504, Oral Presentation.
71. Preliminary Safety and Clinical Activity in a Phase 1 Study of Blu-285, a Potent, Highly-Selective Inhibitor of KIT D816V in Advanced Systemic Mastocytosis (SM) **Mark W. Drummond**, Daniel J. DeAngelo, Michael

- W. Deininger, Deepti Radia, Albert Thomas Quiery, Elizabeth OHexner, Hongliang Shi, Terri Alvarez-Diez, Erica K. Evans, Mary Ellen Healy, Beni B. Wolf and Srdan Verstovsek. Blood 2016 128:477.*
72. Minimal Residual Disease (MRD) Assessment By Multiparametric Flow Cytometry Is Prognostic for Progression-Free Survival in Phase 1/1b Relapsed/Refractory Acute Myeloid Leukemia (AML) Patients Treated with Idasanutlin MDM2 Antagonist. *Benjamin Lanza, Giovanni Martinelli, Karen W.L. Yee, Lori Jukofsky, Bernhard Reis, Steven Blotner, **Mark W. Drummond**, Norbert Vey, Karen Seiter, J. R. Kelly, Margaret Kasner, Michel Theron, Jeffrey M. Venstrom, Steven Middleton, Lin Chi Chen, Nelson Kinnersley, Gwen Nicols and William E. Pierceall. Blood 2016 128:2843;*
73. Clinical Activity in a Phase 1 Study of Blu-285, a Potent, Highly-Selective Inhibitor of KIT D816V in Advanced Systemic Mastocytosis (AdvSM). *Daniel J. DeAngelo, Albert Thomas Quiery, Deepti Radia, **Mark W Drummond**, Jason Gotlib, William A Robinson, Elizabeth Hexner, Srdan Verstovsek, Hongliang Shi, Terri Alvarez-Diez, Oleg Schmidt-Kittler, Erica Evans, Mary Ellen Healy, Beni B. Wolf and Michael W. Deininger. Blood 2017. 130; 2.*
74. Safety and Clinical Activity of Combined Romidepsin and Azacitidine Therapy in High Risk Acute Myeloid Leukemia: Preliminary Results of the Romaza Trial. *Charles Craddock, Eleni Tholouli, Samuel Munoz Vicente, Emmanouela Gbandi, Aimee E Houlton, **Mark W Drummond**, Jiri Pavlu and Paresh Vyas. Blood 2017. 130; 1649.*
75. A Phase Ib Study to Assess the Safety and Tolerability of Ruxolitinib in Combination with Azacitidine in Patients with Advanced Phase Myeloproliferative Neoplasms (MPN), Including Myelodysplastic Syndromes (MDS) or Acute Myeloid Leukaemia (AML) Arising from MPN (The Bloodwise / TAP PHAZAR Study on Behalf of the UK MPN CSG). ***Mark W Drummond**, Claire N. Harrison, Samuel Munoz Vicente, Adam J Mead, Christina Yap, Frederick Chen, Srinivasan Narayanan, Dragana Milojkovic, Leyre Navarro-Nunez and Steven Knapper. Blood 2017. 130, 1649.*
76. Results of a Phase 2 Trial of the Monocyte-Targeted Histone Deacetylase Inhibitor Tefinostat (CHR-2845) in Chronic Myelomonocytic Leukemia (CMML) — the UK Monocle Study. *Steven Knapper, Michael Dennis, **Mark W Drummond**, Robert K. Hills, Richard James Dillon, Christopher Pocock, Dominic J. Culligan, Paresh Vyas, Daniel Wiseman, Joanna Zabkiewicz, Marie Hodges, Catherine Cargo, Jan Taylor, Laura Upton, Melissa Wright and David Bowen. Blood 2018. 132, 1818.*

SELECTED REGIONAL DOCUMENTS AND PROTOCOLS

- Lead author on current Cancer Network Clinical Management Guidelines for: AML, MDS, ET, PRV, IMF and CML (WoSCAN, as of 2019)
- WoSCAN Haematopathology User's Manual (updated 2018)
- CML: Nurse Led Clinic Protocol, 2015.
- MPN: Nurse Led Clinic protocol; 2013.
- MPN: Nurse Led Telephone Clinic protocol, 2019.
- Hydroxycarbamide, Shared care Policy, 2013.
- Consensus Statement on use of TKIs in ALL (WoSCAN), 2014.
- WoSCAN Annual Audit report

INVESTIGATOR LED CLINICAL TRIALS

Recent & Ongoing Trials include:

- A phase 2 study of the monocyte-targeted histone deacetylase inhibitor tefinostat (CHR-2845) in chronic myelomonocytic leukaemia (CMML). LLR Grant Awarded 2015, **Co-Investigator**.
- A phase 1/2 study to assess the activity of oral Ruxolitinib in combination with 5 azacitidine in patients with accelerated phase myeloproliferative neoplasms, MDS or AML after myeloproliferative neoplasms (the PHAZAR study). LLR TAP Grant awarded March 2014. **Drummond MW (CI)**, Opened February 2016.
- RAAVA: A Randomised Phase II Trial of 5-Azacitidine versus 5-Azacitidine in Combination with Vorinostat in Patients with Relapsed Acute Myeloid Leukaemia Ineligible for Intensive Chemotherapy. TAP Trial. Recruiting. **PI**.
- I am currently on the DMECs of the UK / Multinational AML trials AML18 (pilot) and LI-1.
- MAJIC: A Randomised study of best Available therapy versus JAK Inhibition in patients with high risk Polycythaemia Vera or Essential Thrombocythaemia who are resistant or intolerant to HydroxyCarbamide. TAP Trial, opened BOC February 2013. **PI**.
- CMML201: A phase 2 study of 5-azacytidine in CMML (D Bowen & **M Drummond**, Funding approved by CRUK CTAC April 2008, Joint Principal Investigator, co-wrote protocol). Opened January 2010, complete June 2010. Manuscript Published.
- A pilot study of continuous imatinib mesylate vs. pulsed imatinib with or without rHu-G-CSF in CML patients who have achieved a complete cytogenetic response (GIMI). **Drummond MW**, Kaeda J, Holyoake TL. NCRN Badged Clinical Trial. Full recruitment achieved, follow up complete 2007. Manuscript & Follow Up Study Published. (Joint Principal Investigator; co-wrote protocol)

COMMERCIAL CLINICAL TRIALS

CI or PI on numerous commercial studies including most recently:

- PAC203: A Phase 2 dose finding study of Pacritinib in Myelofibrosis refractory or intolerant to Ruxolitinib. 2018-.
- BLU285: Phase 1 Trial of BLU285 (Avapritinib), a selective c-KIT inhibitor for Aggressive Systemic Mastocytosis. **PI**. One of only 2 UK sites. (2016-)
- iMBARK: A Phase 2 Study of the Telomerase Inhibitor Imetelstat in Myelofibrosis patients refractory or intolerant to Ruxolitinib. **PI**. (2016-)
- PERSIST-2: A Randomised Phase 2 Study of Pacritinib vs Best Available Therapy in Myelofibrosis. CTI Pharmaceuticals. **PI**. **Top Recruiting Site, UK, 2nd top worldwide**. On Full Clinical Hold. (2014-)
- A Phase Ib/II, open-label, multi-center, dose-finding study to assess the safety and efficacy of the oral combination of LDE225 and INC424 (Ruxolitinib) in patients with myelofibrosis. **PI**, Closed January 2016.
- A Phase 3, Multicentre, Randomised, Double-Blind, Placebo-Controlled, 3-Arm Study of SAR302503 in Patients with Intermediate-2 or High-Risk, Primary

Myelofibrosis, Post-Polycythaemia Myelofibrosis or Post ET Myelofibrosis with Splenomegaly. **PI**, April 2012-August 2012. 2nd top recruiting site in Europe. Sanofi. Closed due to Safety Concerns November 2014.

- A Multi-Center, Randomized, Double-Blind, Placebo-Controlled Clinical Trial Of Deferasirox In Patients With Myelodysplastic Syndromes (Low/Int-1 Risk) And Transfusional Iron Overload (Telesto). **PI**, top recruiting site in UK.
- A Multi-Center, Open-Label, Phase 1B Study of escalating doses of R05045337 administered orally, with cytarabine administered A) Subcutaneously or B) Intravenously in patients with acute myelogenous leukaemia (AML). **UK Chief Investigator**, September 2012-. Roche.

GRANTS AWARDED

- A phase 2 study of the monocyte-targeted histone deacetylase inhibitor tefinostat (CHR-2845) in chronic myelomonocytic leukaemia (CMML). LLR Grant Number 14048, December 2014. £207,000. Co-Investigator. Kapper S, Hills R, **Drummond MW**, Bowen D. Trial completed 2018.
- A phase 1/2 study to assess the activity of oral Ruxolitinib in combination with 5 azacitidine in patients with accelerated phase myeloproliferative neoplasms, MDS or AML after myeloproliferative neoplasms. LLR TAP Grant awarded March 2014 (TAP Support, £12,000 for Bio-Banking, free drug(s) from Celgene and Novartis). **Drummond MW (CI)**, Knapper S, Harrison C.
- CMML201 Study (Phase II Study of 5 Azacitidine in CMML). £50,000 from CRUK (£100,000 from Celgene). 2009. Opened January 2010. Bowen D, **Drummond MW** (Joint PI)
- hTERT mRNA expression and prognostic relevance in AML. **Drummond MW(PI)**, Holyoake TL, Keith WN. 1 year Project Grant (Leukaemia Research Fund Grant No 0258; £38,335). March 2003 – Feb 2004.
- An investigation into telomerase regulation and telomere dynamics at diagnosis and during the progression of CML. **Drummond MW (PI)**, Holyoake TL, Keith WN. 1 year Project Grant (Leukaemia Research Fund Grant No 0239; £55,582). May 2002-July 2003.
- A pilot study of continuous imatinibmesylate vs. pulsed imatinib with or without rHu-G-CSF in CML patients who have achieved a complete cytogenetic response (GIMI). **Drummond MW**, Kaeda J, Holyoake TL. Leukaemia Research Fund January 2003. £35, 000. (Additional support from Chugai and Novartis of £40,000 each).
- **Drummond MW**, Equipment Grant, £6,000. Laura McKee Leukaemia Trust. March 2003.

FUNDING AWARDED for SERVICE DEVELOPMENT

- MPN Clinical Nurse Specialist. Joint Working Initiative (GG&C, Novartis), Beatson Charity. October 2014. £72,000 (0.8 WTE Nurse for 2 years). Lead Applicant.
- Weekend Transfusion Service, BOC, Pilot Project (2 years). October 2014. Beatson Charity, £70,000. Lead Medical Applicant.
- Support for two Senior R&D Scientists, NHS Molecular Pathology Laboratory, SGH. 3 years funding, £287,000. Joint Working Initiative (GG&C, Novartis, Celgene) Commenced September 2015. Lead Medical Applicant.

- Illumina MySeq NGS Platform (in support of above project) for SGH Molecular Pathology Laboratory. January 2015, £100,000, MCN Endowment Funding. Lead Medical Applicant.

SERVICE DEVELOPMENT PROJECTS

- Nurse Led MPN Clinic (weekly): 2014 –
- Nurse Led MPN telephone clinic (2-weekly): 2019 -
- Nurse led CML Clinic (weekly): 2015-
- Weekend transfusion Service: 2014-
- Development of Generic Biobanking Consent & Ethics Application (Renewal Bid, 2016-)
- WoSCAN Project to review Follow Up Protocols (Lymphoma, Nurse Led through competitive project funding): 2016-
- Development of Clinical trial Maps, WoSCAN Website, 2015-
- Joint Working Project to Develop Molecular testing in WoSCAN: 2015-
- Haematology representative re Scoping of Integrated Laboratory reporting System, 2017-

MANAGEMENT, TEACHING & MCN ROLES

- MCN Clinical Lead (Haem-Onc) May 2013-May 2018
- SMC Advisor, 2008-present, including PACE meeting attendance.
- North Glasgow Clinical Lead for Laboratory Haematology 2009-2012
- North Glasgow Clinical Lead for Clinical Services 2013-2017
- Chair North Glasgow haematology MDT, August 2012-
- Chair Regional Diagnostics Subgroup of WoSCAN 2010-2015
- Chair Research & Career Development Subgroup of West of Scotland Haematology Training Programme 2010-2014
- Educational Supervisor 2009-

SELECTED RECENT PRESENTATIONS

- Management of MDS; Jan & Oct 2018 (Haematology Masterclass, Janssen UK).
- Working with Industry: Diagnostic Pathways: June 2016, Radisson Hotel, Glasgow.
- PRV: Update. Dublin MPN Meeting, RCP Ireland, Dublin, March 2016.
- ASH Myeloid Malignancy Update, RCP Glasgow, January 2016.
- CMML: Is there anything New? Belfast MPN Meeting, October 2015.
- The Myeloproliferative Neoplasms, The John Dagg Haematology Symposium, RCP, Glasgow, December 2014.
- MPN Clinical Trials, Scottish MPN Nurses Meeting, November 2014.
- Diagnosis of Myeloid Malignancies. Registrar Diagnostics Training Day, March 2014.
- CMML, Recent Advances, MPN Advances day, Invited Speaker, London December 2013
- CMML...Is There Anything New? National CML and MPN Meeting, Invited Speaker, Newcastle March 2013.
- Update on CML. Data Managers & Research Nurses, February 2013.

- Investigation of Anaemia, Broomhill GP Practice, January 2013.
- Update on CML. Haematological Malignancy Course, London, December 2012.
- Pathogenesis and Diagnosis of Acute Leukaemia, Registrar Rolling Programme, October 2012.
- Update on Molecular Testing and Clinical trials in MPDs in WoSCAN, MCN Annual Educational Event, October 2012.

RECENT COURSES / CONFERENCES

- EHA Annual (Virtual) Meeting June 2020
- ASH Annual Meeting San Diego, December 2018
- ASH Annual Meeting, Atlanta, December 2017
- ASH Annual Meeting, Orlando, December 2015
- ASH Annual Meeting, San Francisco, December 2014.
- GCP Online Update Course November 2014.
- SHS Annual Meeting, Dunblane, November 2014
- MPN Advances Day, London 2013
- SHS Annual Meeting, Dunblane, November 2013
- EHA Annual Meeting, 2013, Stockholm
- CML & MPD Update, Newcastle, March 2013
- GCP Update, November 2012
- MCN Education Day: Focus on Myeloid Malignancies May 2012
- EHA Annual Meeting, Amsterdam, June 2012
- Educational Supervisors Course, October 2011

Mark W. Drummond

20.5.20