Meet The Professors Live: Clinical Investigators Provide Perspectives on Actual Cases of Patients with Lymphoma, Chronic Lymphocytic Leukemia and Multiple Myeloma

A CME Symposium Held in Conjunction with the 2023 ASCO® Annual Meeting

Sunday, June 4, 2023 7:00 PM – 9:30 PM CT

Faculty

John N Allan, MD Shaji K Kumar, MD Ann S LaCasce, MD, MMSc Sagar Lonial, MD Loretta J Nastoupil, MD Susan O'Brien, MD

Moderator Neil Love, MD



Multiple Myeloma Faculty



Shaji K Kumar, MD

Mark and Judy Mullins Professor of Hematological Malignancies Consultant, Division of Hematology Professor of Medicine Mayo Clinic Rochester, Minnesota



Sagar Lonial, MD Chair and Professor Department of Hematology and Medical Oncology Chief Medical Officer Winship Cancer Institute Emory University Atlanta, Georgia



Moderator Neil Love, MD Research To Practice Miami, Florida



Lymphoma Faculty



Ann S LaCasce, MD, MMSc Director, Dana-Farber/Mass General Brigham Fellowship in Hematology/Oncology Associate Professor of Medicine Harvard Medical School Lymphoma Program Dana-Farber Cancer Institute Boston, Massachusetts



Loretta J Nastoupil, MD Associate Professor Section Chief, Indolent Lymphoma Department of Lymphoma/Myeloma The University of Texas MD Anderson Cancer Center Houston, Texas



Moderator Neil Love, MD Research To Practice Miami, Florida



Chronic Lymphocytic Leukemia Faculty



John N Allan, MD Associate Professor of Clinical Medicine Weill Cornell Medicine New York, New York



Susan O'Brien, MD Professor, Division of Hematology/Oncology School of Medicine UCI Chao Family Comprehensive Cancer Center Orange, California



Moderator Neil Love, MD Research To Practice Miami, Florida



Contributing General Medical Oncologists



Lowell L Hart, MD Florida Cancer Specialists and Research Institute Fort Myers, Florida



Priya Rudolph, MD, PhD Georgia Cancer Specialists Northside Hospital Cancer Institute Athens, Georgia



Eric H Lee, MD, PhD

Compassionate Cancer Care Medical Group Fountain Valley, California



Dr Allan — Disclosures

Consulting Agreements	AbbVie Inc, ADC Therapeutics, AstraZeneca Pharmaceuticals LP, BeiGene Ltd, Epizyme Inc, Genentech, a member of the Roche Group, Janssen Biotech Inc, Lilly, Pharmacyclics LLC, an AbbVie Company, TG Therapeutics Inc				
Contracted Research	BeiGene Ltd, Celgene Corporation, Genentech, a member of the Roche Group, Janssen Biotech Inc, TG Therapeutics Inc				
Nonpromotional Disease State Awareness Speaking	AbbVie Inc, BeiGene Ltd, Janssen Biotech Inc, Pharmacyclics LLC, an AbbVie Company				



Dr Hart — Disclosures

Advisory Committee	Circulogene, Genentech, a member of the Roche Group, Novartis				
Consulting Agreement	G1 Therapeutics Inc				
Contracted Research	G1 Therapeutics Inc, Novartis, Seagen Inc				



Dr Kumar — Disclosures

Advisory Committee	AbbVie Inc, Genentech, a member of the Roche Group, Janssen Biotech Inc				
Consulting Agreements (No Personal Payments)	AbbVie Inc, Amgen Inc, Arcellx, AstraZeneca Pharmaceuticals LP, bluebird bio, Bristol Myers Squibb, Epizyme Inc, Genentech, a member of the Roche Group, Janssen Biotech Inc, K36 Therapeutics, Loxo Oncology Inc, a wholly owned subsidiary of Eli Lilly & Company, Monte Rosa Therapeutics, Sanofi, Secura Bio, Takeda Pharmaceuticals USA Inc, Trillium Therapeutics Inc				
Consulting Agreements (with Personal Payments)	Bristol Myers Squibb, Janssen Biotech Inc				
Research Funding for Clinical Trials to the Institution	AbbVie Inc, Allogene Therapeutics, Amgen Inc, AstraZeneca Pharmaceuticals LP, Bristol Myers Squibb, CARsgen Therapeutics, Genentech, a member of the Roche Group, GSK, Janssen Biotech Inc, Novartis, Regeneron Pharmaceuticals Inc, Takeda Pharmaceuticals USA Inc				



Dr LaCasce — Disclosures

Advisory Committee	Kite, A Gilead Company, Seagen Inc			
Data and Safety Monitoring Board/Committee (Does Not Take Payment)	Bristol Myers Squibb			



Dr Lee — Disclosures

No relevant conflicts of interest to disclose



Dr Lonial — Disclosures

Advisory Committee	AbbVie Inc, Amgen Inc, Bristol Myers Squibb, Celgene Corporation, Genentech, a member of the Roche Group, GSK, Janssen Biotech Inc, Novartis, Pfizer Inc, Takeda Pharmaceuticals USA Inc				
Board of Directors with Stock	TG Therapeutics Inc				
Contracted Research	Bristol Myers Squibb, Janssen Biotech Inc, Novartis, Takeda Pharmaceuticals USA Inc				



Dr Nastoupil — Disclosures

Advisory Committee	Bristol Myers Squibb, Daiichi Sankyo Inc, Genentech, a member of the Roche Group, Gilead Sciences Inc, Janssen Biotech Inc, Kite, A Gilead Company, Merck, Novartis, Regeneron Pharmaceuticals Inc, Takeda Pharmaceuticals USA Inc				
Consulting Agreements	AbbVie Inc, Incyte Corporation				
Contracted Research	Bristol Myers Squibb, Daiichi Sankyo Inc, Genentech, a member of the Roche Group, Gilead Sciences Inc, Janssen Biotech Inc, Kite, A Gilead Company, Merck, Novartis, Takeda Pharmaceuticals USA Inc				
Data and Safety Monitoring Board/Committee	Genentech, a member of the Roche Group, Takeda Pharmaceuticals USA Inc				



Dr O'Brien — Disclosures

Consultant	AbbVie Inc, Alexion Pharmaceuticals, Amgen Inc, Aptose Bioscience Inc, Astellas, AstraZeneca Pharmaceuticals LP, Autolus Therapeutics, Bristol Myers Squibb, Celgene Corporation, Gilead Sciences Inc, GSK, Janssen Biotech Inc, Johnson & Johnson Pharmaceuticals, Juno Therapeutics, a Celgene Company, Lilly, MEI Pharma Inc, Merck, Pfizer Inc, Pharmacyclics LLC, an AbbVie Company, TG Therapeutics Inc, Vaniam Group, Verastem Inc, Vida Ventures LLC				
Research Support	Acerta Pharma — A member of the AstraZeneca Group, BeiGene Ltd, Caribou Biosciences Inc, Gilead Sciences Inc, Kite, A Gilead Company, Loxo Oncology Inc, a wholly owned subsidiary of Eli Lilly & Company, Mustang Bio, Nurix Therapeutics Inc, Pfizer Inc, Pharmacyclics LLC, an AbbVie Company, Regeneron Pharmaceuticals Inc, TG Therapeutics Inc				
Nonrelevant Financial Relationship	Alliance Pharma Inc, DynaMed, Nova Research Inc				



Dr Rudolph — Disclosures

Advisory Committee	Pfizer Inc				
Speakers Bureau	AstraZeneca Pharmaceuticals LP, Gilead Sciences Inc, Puma Biotechnology Inc, Seagen Inc, Stemline Therapeutics Inc				



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Research To Practice CME Planning Committee Members, Staff and Reviewers

Planners, scientific staff and independent reviewers for Research To Practice have no relevant conflicts of interest to disclose.



Gastroesophageal CancersFriday11:45 AM - 12:45 PM CT (12:45 PM - 1:45 PM ET)June 2Non-Small Cell Lung Cancer6:30 PM - 9:00 PM CT (7:30 PM - 10:00 PM ET)		
Saturday June 3	Hepatobiliary Cancers 6:45 AM - 7:45 AM CT (7:45 AM - 8:45 AM ET) Prostate Cancer 7:00 PM - 9:00 PM CT (8:00 PM - 10:00 PM ET)	
Sunday June 4	Ovarian Cancer 6:45 AM – 7:45 AM CT (7:45 AM – 8:45 AM ET) Lymphoma, Chronic Lymphocytic Leukemia and Multiple Myeloma 7:00 PM – 9:30 PM CT (8:00 PM – 10:30 PM ET)	
Monday June 5	Urothelial Bladder Cancer 6:45 AM - 7:45 AM CT (7:45 AM - 8:45 AM ET) Breast Cancer 7:00 PM - 9:30 PM CT (8:00 PM - 10:30 PM ET)	
Tuesday June 6	Renal Cell Carcinoma (Webinar) 7:00 AM - 8:00 AM CT (8:00 AM - 9:00 AM ET)	



Clinicians in the Meeting Room

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> A postmeeting survey will be posted toward the end of the session.

> > Thank you for your input.



About the Enduring Program

- The live meeting is being video and audio recorded.
- The proceedings from today will be edited and developed into an enduring web-based video/PowerPoint program.



An email will be sent to all attendees when the activity is available.

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Meet The Professors Live: Clinical Investigators Provide Perspectives on Actual Cases of Patients with Multiple Myeloma

A CME Symposium Held in Conjunction with the 2023 ASCO[®] Annual Meeting

Faculty Shaji K Kumar, MD Sagar Lonial, MD

> Moderator Neil Love, MD



Agenda

Module 1 — Initial Treatment of Newly Diagnosed Multiple Myeloma (MM)

- Up-front treatment for transplant eligible patients
- Up-front treatment for patients not eligible for transplant
- Current approach to maintenance therapy

Module 2 — Sequencing of Therapies for Relapsed/Refractory MM

- Anti-CD38 antibodies
- Bispecific antibodies
- CAR T-cell therapy
- Selinexor
- Venetoclax and other strategies



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2022 ASCO

RVd ± ASCT and Lenalidomide Maintenance to Progression for NDMM

The Phase 3 DETERMINATION Trial

Paul G. Richardson, MD, RJ Corman Professor of Medicine, Harvard Medical School Clinical Program Leader, Director of Clinical Research, Jerome Lipper Multiple Myeloma Center, Dana-Farber Cancer Institute, Boston, MA The NEW ENGLAND JOURNAL of MEDICINE N Engl J Med 2022 Jul 14;387(2):132-47.

ORIGINAL ARTICLE

Triplet Therapy, Transplantation, and Maintenance until Progression in Myeloma

P.G. Richardson, S.J. Jacobus, E.A. Weller, H. Hassoun, S. Lonial, N.S. Raje, E. Medvedova, P.L. McCarthy, E.N. Libby, P.M. Voorhees, R.Z. Orlowski,
L.D. Anderson, Jr., J.A. Zonder, C.P. Milner, C. Gasparetto, M.E. Agha, A.M. Khan, D.D. Hurd, K. Gowin, R.T. Kamble, S. Jagannath, N. Nathwani, M. Alsina, R.F. Cornell, H. Hashmi, E.L. Campagnaro, A.C. Andreescu, T. Gentile,
M. Liedtke, K.N. Godby, A.D. Cohen, T.H. Openshaw, M.C. Pasquini, S.A. Giralt, J.L. Kaufman, A.J. Yee, E. Scott, P. Torka, A. Foley, M. Fulciniti, K. Hebert, M.K. Samur, K. Masone, M.E. Maglio, A.A. Zeytoonjian, O. Nadeem, R.L. Schlossman, J.P. Laubach, C. Paba-Prada, I.M. Ghobrial, A. Perrot, P. Moreau, H. Avet-Loiseau, M. Attal, K.C. Anderson, and N.C. Munshi, for the DETERMINATION Investigators*



Articles



Addition of isatuximab to lenalidomide, bortezomib, and dexamethasone as induction therapy for newly diagnosed, transplantation-eligible patients with multiple myeloma (GMMG-HD7): part 1 of an open-label, multicentre, randomised, active-controlled, phase 3 trial

Hartmut Goldschmidt^{*}, Elias K Mai^{*}, Uta Bertsch, Roland Fenk, Eva Nievergall, Diana Tichy, Britta Besemer, Jan Dürig, Roland Schroers, Ivana von Metzler, Mathias Hänel, Christoph Mann, Anne M Asemissen, Bernhard Heilmeier, Niels Weinhold, Stefanie Huhn, Katharina Kriegsmann, Steffen P Luntz, Tobias A W Holderried, Karolin Trautmann-Grill, Deniz Gezer, Maika Klaiber-Hakimi, Martin Müller, Cyrus Khandanpour, Wolfgang Knauf, Christof Scheid, Markus Munder, Thomas Geer, Hendrik Riesenberg, Jörg Thomalla, Martin Hoffmann, Marc S Raab, Hans J Salwender, Katja C Weisel, for the German-Speaking Myeloma Multicenter Group (GMMG) HD7 investigators†



GMMG-HD7: Minimum Residual Disease Status and Response Rates after Induction Therapy in the Intent-to-Treat Population





Goldschmidt H et al. Lancet Haematol 2022;9(11):e810-21.

Maintenance Therapy with Carfilzomib, Pomalidomide, and Dexamethasone (KPd) in High-Risk Myeloma Patients (Pts): A Phase 2 Study with Safety Run-in

Nooka AJ et al. ASCO 2023;Abstract 8001.

Saturday, June 3; 1:27 PM CDT



Daratumumab Plus Lenalidomide and Dexamethasone (D-Rd) Versus Lenalidomide and Dexamethasone (Rd) Alone in Transplant-ineligible Patients With Newly Diagnosed Multiple Myeloma (NDMM): Updated Analysis of the Phase 3 MAIA Study

Shaji K. Kumar,¹ Philippe Moreau,² Nizar Bahlis,³ Thierry Facon,⁴ Torben Plesner,⁵ Robert Z. Orlowski,⁶ Supratik Basu,⁷ Hareth Nahi,⁸ Cyrille Hulin,⁹ Hang Quach,¹⁰ Hartmut Goldschmidt,¹¹ Michael O'Dwyer,¹² Aurore Perrot,¹³ Christopher P. Venner,^{14,15} Katja Weisel,¹⁶ Noopur Raje,¹⁷ Mourad Tiab,¹⁸ Margaret Macro,¹⁹ Laurent Frenzel,²⁰ Xavier Leleu,²¹ George Wang,²² Huiling Pei,²³ Maria Krevvata,²² Robin Carson,²² Fredrik Borgsten,²⁴ Saad Z. Usmani²⁵

¹Department of Hematology, Mayo Clinic Rochester, Rochester, MN, USA; ²Hematology Department, University Hospital Hôtel-Dieu, Nantes, France; ³Arnie Charbonneau Cancer Research Institute, University of Calgary, Calgary, AB, Canada; ⁴University of Lille, CHU Lille, Service des Maladies du Sang, Lille, France; ⁵Vejle Hospital and University of Southern Denmark, Vejle, Denmark; ⁶Department of Lymphoma & Myeloma, The University of Texas MD Anderson Cancer Center, Houston, TX, USA; ⁷Royal Wolverhampton NHS Trust and University of Wolverhampton, CRN West Midlands, NIHR, Wolverhampton, UK; ⁸Karolinska Institute, Department of Medicine, Division of Hematology, Karolinska University Hospital at Huddinge, Stockholm, Sweden; ⁹Department of Hematology, Hôpital Haut Lévêque, University Hospital, Pessac, France; ¹⁰University of Melbourne, St Vincent's Hospital, Melbourne, Australia; ¹¹GMMG-Study Group at University Hospital Heidelberg, Internal Medicine V, Heidelberg, Germany; ¹²Department of Medicine/Haematology, NUI, Galway, Republic of Ireland; ¹³CHU de Toulouse, IUCT-O, Université de Toulouse, UPS, Service d'Hématologie, Toulouse, France; ¹⁴Department of Medical Oncology, Cross Cancer Institute, University of Alberta, Edmonton, AB, Canada; ¹⁵BC Cancer – Vancouver Centre Group, Vancouver, BC, Canada; ¹⁶Department of Oncology, Hematology and Bone Marrow Transplantation with Section of Pneumology, University Medical Center Hamburg-Eppendorf, Hamburg, Germany; ¹⁷Center for Multiple Myeloma, Massachusetts General Hospital Cancer Center, Boston, MA, USA; ¹⁸CHD Vendée, La Roche sur Yon, France; ²⁰Icnter Hospitalier Universite (CHU) de Caen, Caen, France; ²⁰Hôpital Necker-Enfants Malades, Paris, France; ²¹CHU Poitiers, Hôpital la Milétrie, Poitiers, France; ²²Janssen Research & Development, LLC, Spring House, PA, USA; ²³Janssen Research & Development, LLC, Titusville, NJ, USA; ²⁴Janssen Research & Development, LLC, Raritan, NJ, USA; ²⁵Memorial Sloan Kettering Cancer Center, New Y

Presented at the 64th American Society of Hematology (ASH) Annual Meeting & Exposition; December 10-13, 2022; New Orleans, LA, USA.

https://www.congresshub.com/Oncology/ ASH2022/Daratumumab/Kumar-Daratumumab

The QR code is intended to provide scientific information for individual reference, and the information should not be altered or reproduced in any way.



MAIA: Overall Survival in the ITT Population





Kumar S et al. ASH 2022; Abstract 4559.

Agenda

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- Bispecific antibodies
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- Selinexor
- Venetoclax and other strategies



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Blood Cancer Journal

ARTICLE OPEN

Isatuximab, carfilzomib, and dexamethasone in patients with relapsed multiple myeloma: updated results from IKEMA, a randomized Phase 3 study

Thomas Martin (b^{1,22 \Box}}, Meletios-Athanasios Dimopoulos (b², Joseph Mikhael (b³, Kwee Yong (b⁴, Marcelo Capra⁵, Thierry Facon⁶, Roman Hajek (b⁷, Ivan Špička⁸, Ross Baker⁹, Kihyun Kim¹⁰, Gracia Martinez¹¹, Chang-Ki Min¹², Ludek Pour¹³, Xavier Leleu (b¹⁴, Albert Oriol (b¹⁵, Youngil Koh¹⁶, Kenshi Suzuki¹⁷, France Casca¹⁸, Sandrine Macé¹⁹, Marie-Laure Risse²⁰ and Philippe Moreau^{21,22}

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IKEMA: Updated PFS in the ITT Population



PFS = progression-free survival; ITT = intent-to-treat; Isa-Kd = isatuximab/carfilzomib/dexamethasone; Kd = carfilzomib/dexamethasone; mPFS = median PFS

Martin T et al. Blood Cancer J 2023;13(1):72.



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CD3 x BCMA Bispecific Antibodies for MM

	Teclistamab ^{1,2,3}	Linvoseltamab ⁴	ABBV-383 ^{5,6}	Elranatamab ^{7,8}	Alnuctamab ⁹	REGN5459 ¹⁰
Trial	MajesTEC-1	Phase I/II	Phase I	MagnetisMM-3	Phase I	Phase I/II
Population	165 Median 5 LOT 78% triple refractory	252* Median 6 LOT 90% triple refractory	174* Median 5 LOT 80% triple refractory	123 Median 5 LOT 97% triple refractory 32% EMD	68* Median 4 LOT 63% triple refractory	43
Safety all grade (Grade 3+)	CRS 72% (0.6%) Neurotoxicity 14.5% (0) ICANS 3% (0) Infections 76% (45%)	CRS 44% (1%) Neurotoxicity: 5.6% (1.2%) Infections: 54% (29%)	CRS 70% (2%) ICANS : 6 pts (1 pt) Infections 43% (22%)	CRS 56% (0) ICANS 3% (0) Infections 67% (35%)	CRS 53% (0) ICANS 3% (0) Infections 34% (9%)	CRS 54% (5%) Infections: 61% (37%)
Response ORR (VGPR+)	63%	64% at 200mg	61% at 60mg	61%	65% at 30mg dose	67% (90.5% at 2 highest doses)

LOT = lines of therapy; CRS = cytokine release syndrome; pt = patient; ORR = overall response rate; VGPR = very good partial response

¹ Moreau et al. *N Engl J Med* 2022;387(6):495-505. ² Nooka et al. ASCO 2022;Abstract 8007. ³ Touzeau et al. ASCO 2022;Abstract 8013.
 ⁴ Bumma et al. ASH 2022;Abstract 4555; AACR 2023. ⁵ Voorhees et al. ASH 2022;Abstract 1919. ⁶ Voorhees P et al. 19th International Myeloma Society Annual Meeting 2022;Abstract OAB-055. ⁷ Bahlis et al. ASH 2022;Abstract 159. ⁸ Raje et al. ASH 2022;Abstract 158.
 ⁹ Wong et al. ASH 2022;Abstract 162. ¹⁰ Suvannasankha A et al. AACR 2023;Abstract CT013.



First Results from the RedirecTT-1 Study with Teclistamab (Tec) + Talquetamab (Tal) Simultaneously Targeting BCMA and GPRC5D in Patients (Pts) with Relapsed/Refractory Multiple Myeloma (RRMM)

Cohen YC et al.

ASCO 2023; Abstract 8002.

Saturday, June 3; 1:39 PM CDT


LINKER-MM1 Study: Linvoseltamab (REGN5458) in Patients with Relapsed/Refractory Multiple Myeloma

Lee HC et al. ASCO 2023;Abstract 8006.

Saturday, June 3; 3:15 PM CDT



Efficacy and Safety of Elranatamab in Patients with Relapsed/Refractory Multiple Myeloma (RRMM) and Prior B-Cell Maturation Antigen (BCMA)-Directed Therapies: A Pooled Analysis from MagnetisMM Studies

Nooka AK et al.

ASCO 2023; Abstract 8008.

Saturday, June 3; 3:39 PM CDT



Cevostamab is Efficacious and Well Tolerated in Patients Aged <65 and ≥65 Years with Relapsed/Refractory Multiple Myeloma

Krishnan A et al.

International Myeloma Society Annual Meeting 2022; Abstract P-012.



RG6234, a GPRC5DxCD3 T-Cell Engaging Bispecific Antibody, Is Highly Active in Patients (pts) with Relapsed/Refractory Multiple Myeloma (RRMM): Updated Intravenous (IV) and First Subcutaneous (SC) Results from a Phase I Dose-Escalation Study

Carlo-Stella C et al. ASH 2022;Abstract 161.



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First Phase 3 Results from CARTITUDE-4: Cilta-Cel versus Standard of Care (PVd or DPd) in Lenalidomide-Refractory Multiple Myeloma

Dhakal B et al. ASCO 2023;Abstract LBA106.

Monday, June 5; 9:57 AM CDT



The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Ide-cel or Standard Regimens in Relapsed and Refractory Multiple Myeloma

P. Rodriguez-Otero, S. Ailawadhi, B. Arnulf, K. Patel, M. Cavo, A.K. Nooka, S. Manier, N. Callander, L.J. Costa, R. Vij, N.J. Bahlis, P. Moreau, S.R. Solomon, M. Delforge, J. Berdeja, A. Truppel-Hartmann, Z. Yang, L. Favre-Kontula, F. Wu, J. Piasecki, M. Cook, and S. Giralt



2023;388:1002-14.

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- Venetoclax and other strategies



Lancet 2020;396(10262):1563-73.

Once-per-week selinexor, bortezomib, and dexamethasone versus twice-per-week bortezomib and dexamethasone in patients with multiple myeloma (BOSTON): a randomised, open-label, phase 3 trial

Sebastian Grosicki, Maryana Simonova, Ivan Spicka, Ludek Pour, Iryrna Kriachok, Maria Gavriatopoulou, Halyna Pylypenko, Holger W Auner, Xavier Leleu, Vadim Doronin, Ganna Usenko, Nizar J Bahlis, Roman Hajek, Reuben Benjamin, Tuphan K Dolai, Dinesh K Sinha, Christopher P Venner, Mamta Garg, Mercedes Gironella, Artur Jurczyszyn, Pawel Robak, Monica Galli, Craig Wallington-Beddoe, Atanas Radinoff, Galina Salogub, Don A Stevens, Supratik Basu, Anna M Liberati, Hang Quach, Vesselina S Goranova-Marinova, Jelena Bila, Eirini Katodritou, Hanna Oliynyk, Sybiryna Korenkova, Jeevan Kumar, Sundar Jagannath, Phillipe Moreau, Moshe Levy, Darrell White, Moshe E Gatt, Thierry Facon, Maria V Mateos, Michele Cavo, Donna Reece, Larry D Anderson Jr, Jean-Richard Saint-Martin, Jacqueline Jeha, Anita A Joshi, Yi Chai, Lingling Li, Vishnuvardhan Peddagali, Melina Arazy, Jatin Shah, Sharon Shacham, Michael G Kauffman, Meletios A Dimopoulos, Paul G Richardson*, Sosana Delimpasi*



BOSTON: Progression-Free Survival (ITT Population)



ITT = intent-to-treat; Vd = bortezomib/dexamethasone



Grosicki S et al. Lancet 2020;396(10262):1563-73.

BOSTON: Select Adverse Events

	Selinexor + bortezomib/dexamethasone (n = 195)		Bortezomib/dexamethasone (n = 204)	
Adverse event	Any grade	Grade 3/4	Any grade	Grade 3/4
Thrombocytopenia	60%	39%	27%	17%
Fatigue	42%	13%	18%	1%
Anemia	36%	16%	23%	10%
Peripheral neuropathy	32%	5%	47%	9%
Neutropenia	15%	9%	6%	3%



Once weekly selinexor, carfilzomib and dexamethasone in carfilzomib non-refractory multiple myeloma patients

Cristina Gasparetto ¹^M, Gary J. Schiller², Sascha A. Tuchman³, Natalie S. Callander⁴, Muhamed Baljevic⁵, Suzanne Lentzsch⁶, Adriana C. Rossi⁷, Rami Kotb⁸, Darrell White⁹, Nizar J. Bahlis¹⁰, Christine I. Chen¹¹, Heather J. Sutherland¹², Sumit Madan¹³, Richard LeBlanc¹⁴, Michael Sebag¹⁵, Christopher P. Venner¹⁶, William I. Bensinger¹⁷, Noa Biran¹⁸, Sonia Ammu¹⁹, Osnat Ben-Shahar¹⁹, Andrew DeCastro¹⁹, Dane Van Domelen¹⁹, Tianjun Zhou¹⁹, Chris Zhang¹⁹, Ohad S. Bentur¹⁹, Jatin Shah¹⁹, Sharon Shacham¹⁹, Michael Kauffman¹⁹ and Brea Lipe²⁰

British Journal of Cancer 2022;126:718-725



Depth of Response to Selinexor, Carfilzomib and Dexamethasone in Patients with Relapsed or Refractory Multiple Myeloma



F free light chain, S SPEP, U UPEP, A IgA

ORR: 78.1%



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- Venetoclax and other strategies



Final Overall Survival Results from BELLINI, a Phase 3 Study of Venetoclax or Placebo in Combination With Bortezomib and Dexamethasone in Relapsed/Refractory Multiple Myeloma

Shaji K. Kumar,¹ Simon J. Harrison,² Michele Cavo,³ Javier de la Rubia,⁴ Rakesh Popat,⁵ Cristina Gasparetto,⁶ Vania Hungria,⁷ Hans Salwender,⁸ Kenshi Suzuki,⁹ Inho Kim,¹⁰ Maika Onishi,¹¹ Grace Ku,¹¹ Rajvineeth Pothacamury,¹² Vasudha Sehgal,¹² Abdullah Masud,¹² Jeremy A. Ross,¹² Edyta Dobkowska,¹³ and Philippe Moreau¹⁴



BELLINI: Updated Survival Results for Patients with t(11;14)

Investigator-Assessed PFS in Patients With t(11;14)

OS in Patients With t(11;14)





Kumar SK et al. ASH 2021; Abstract 84.

BELLINI: Updated Survival Results for Patients with High Bcl-2 Expression

Patients With BCL2^{high} OS Pbo + Bd PFS Ven + Bd Ven + Bd Pbo + Bd Median, months 30.1 9.9 Events 17 12 HR (95% CI) 0.37 (0.21-0.64) Median, months NR NR 100 100 P value .0005 HR (95% CI) 0.70 (0.32-1.51) P value .3624 Progression-Free Survival, % 80 80 **Overall Survival, %** 60 60 40 40 20 20 en + Bd Ven + Bd Pbo + Bd Pbo + Bd Censored Censored 0 0 12 15 18 21 24 27 30 33 36 39 42 45 48 51 54 12 15 18 21 24 27 30 33 36 39 42 45 48 9 51 6 0 3 6 9 0 Months Months

OS in Patients With BCL2^{high}



Kumar SK et al. ASH 2021;Abstract 84.

Investigator-Assessed PFS in

ASH 2022 Abstract 3232

An Updated Safety and Efficacy Analysis of Venetoclax Plus Daratumumab and Dexamethasone in an Expansion Cohort of a Phase 1/2 Study of Patients With t(11;14) Relapsed/Refractory Multiple Myeloma

Jonathan L. Kaufman,¹ Hang Quach,² Rachid Baz,³ Annette Juul Vangsted,⁴ Shir-Jing Ho,⁵ Simon J. Harrison,⁶ Torben Plesner,⁷ Philippe Moreau,⁸ Simon Gibbs,⁹ Eva Medvedova,¹⁰ Muhammad Jalaluddin,¹¹ Jeremy A. Ross,¹¹ Leanne L Fleming,¹¹ Yan Luo,¹¹ Nizar J. Bahlis¹²



Venetoclax, Daratumumab and Dexamethasone (VenDd) Responses





Kaufman JL et al. ASH 2022; Abstract 3232.

A Phase 3, Open-Label, Randomized Study to Evaluate the Efficacy and Safety of Single-Agent Belantamab Mafodotin (Belamaf) Compared to Pomalidomide plus Low-Dose Dexamethasone (Pd) in Patients (Pts) with Relapsed/Refractory Multiple Myeloma (RRMM): DREAMM-3

Weisel K et al.

ASCO 2023; Abstract 8007.

Saturday, June 3; 3:27 PM CDT



Meet The Professors Live: Clinical Investigators Provide Perspectives on Actual Cases of Patients with Lymphoma

A CME Symposium Held in Conjunction with the 2023 ASCO[®] Annual Meeting

Faculty Ann S LaCasce, MD, MMSc Loretta J Nastoupil, MD

> Moderator Neil Love, MD



Agenda

Module 1 — Hodgkin Lymphoma

• First-line therapy

Module 2 — Diffuse Large B-Cell Lymphoma

- First-line therapy
- Bispecific antibodies
- CAR T-cell therapy
- Selinexor

Module 3 — Follicular Lymphoma

• Bispecific antibodies

Module 4 — Mantle Cell Lymphoma

- BTK inhibitors
- CAR T-cell therapy



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SWOG S1826, a Randomized Study of **Nivolumab(N)-AVD Versus Brentuximab Vedotin(Bv)-AVD in Advanced Stage Classic Hodgkin Lymphoma (cHL)**

G-ACRIN

Reshaping the future of patient care

Alex F. Herrera, MD¹, Michael L. LeBlanc, PhD², Sharon M. Castellino, MD, MSc³, Hongli Li, MS², Sarah C. Rutherford, MD⁴, Andrew M Evens, DO, MSc⁵, Kelly Davison, MD⁶, Angela Punnett, MD⁷, David C. Hodgson, MD, MPH, FRCPC⁸, Susan K Parsons, MD, MRP⁹, Sairah Ahmed, MD¹⁰, Carla Casulo, MD¹¹, Nancy L. Bartlett, MD¹², Joo Y. Song, MD¹³, Richard F. Little¹⁴, Brad S. Kahl, MD¹², John P. Leonard, MD⁴, Sonali M. Smith, MD¹⁵, Kara M. Kelly, MD¹⁶, and Jonathan W. Friedberg, MD, MSSc¹¹

CHILDREN'S

cancer experts

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GROUP

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for Clinical Trials

in Oncology

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S1826 Study Design



2023 ASCO ANNUAL MEETING

PRESENTED BY: Alex F. Herrera, MD #ASCO23

^a Nivolumab 3mg/kg for ages ≤ 17, max 240mg ^b Conventional doses of AVD: Stephens DM et al Blood 2019, Ansell SM et al NEJM 2022 Presentation is property of the author and ASCO. Permission required for reuse; contact permissions@asco.org



N-AVD improves **PFS** compared to **Bv-AVD**



2023 ASCO ANNUAL MEETING

#ASCO23

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SMUC

NCI National Clinica Trials Network CANCER RESEARCH



Event-Free Survival



1-year EFS N-AVD 91% Bv-AVD 84%

EFS events: death, progression, non-protocol treatment before progression

EFS event	N-AVD	Bv-AVD
Non-protocol chemo before PD	9	6
Non-protocol immunotx before PD	1	0
Non-protocol RT prior to PD	1*	3**
Progression/Relapse	26	47
Death without progression	4	10
Total EFS Event	41	66

* Intended for RT, EOT DS=3, received RT anyways

**1/3 intended for RT, 1 with EOT DS=2 and off tx due to AE then received RT, 2 with EOT DS=3 and received RT anyways



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Overall Survival





Cause of death	N-AVD	Bv-AVD
Infection	2	4
Sepsis	1	2*
Cardiac arrest	0	1
Pneumonitis	0	1
Dehydration, vomiting, cHL	0	1
cHL	1**	0
Unknown	1	2
Total OS events	4	11

* 1 death from COVID-19/sepsis

** never received treatment, ineligible on C1D1



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Adverse Events in ≥ 10% patients by Arm







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S1826 Conclusions

- N-AVD improved PFS compared to Bv-AVD in advanced stage cHL
 - N-AVD improved EFS versus Bv-AVD
- N-AVD was well-tolerated
 - Few immune-related adverse events
- < 1% of patients received consolidative RT
 - May reduce late effects
- Follow-up ongoing to confirm durability of PFS, assess long-term safety, OS, and PROs
- Key step towards harmonizing pediatric and adult therapy of cHL
- N-AVD is poised to be a new standard therapy for advanced stage cHL





The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Overall Survival with Brentuximab Vedotin in Stage III or IV Hodgkin's Lymphoma

Stephen M. Ansell, M.D., Ph.D., John Radford, M.D., Joseph M. Connors, M.D.,
Monika Długosz-Danecka, M.D., Ph.D., Won-Seog Kim, M.D., Andrea Gallamini, M.D.,
Radhakrishnan Ramchandren, M.D., Jonathan W. Friedberg, M.D.,
Ranjana Advani, M.D., Martin Hutchings, Ph.D., Andrew M. Evens, D.O.,
Piotr Smolewski, M.D., Ph.D., Kerry J. Savage, M.D., Nancy L. Bartlett, M.D.,
Hyeon-Seok Eom, M.D., Ph.D., Jeremy S. Abramson, M.D., Cassie Dong, Ph.D.,
Frank Campana, M.D., Keenan Fenton, M.D., Markus Puhlmann, M.D.,
and David J. Straus, M.D., for the ECHELON-1 Study Group*



ECHELON-1 Primary Endpoint: Overall Survival (ITT Population)



A+AVD = brentuximab vedotin/doxorubicin/vinblastine/dacarbazine; ABVD = doxorubicin/bleomycin/vinblastine/dacarbazine



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FDA Approves Polatuzumab Vedotin-piiq for Previously Untreated Diffuse Large B-Cell Lymphoma, Not Otherwise Specified and High-Grade B-Cell Lymphoma Press Release: April 19, 2023

"The Food and Drug Administration approved polatuzumab vedotin-piiq with a rituximab product, cyclophosphamide, doxorubicin, and prednisone (R-CHP) for adult patients who have previously untreated diffuse large B-cell lymphoma (DLBCL), not otherwise specified (NOS), or high-grade B-cell lymphoma (HGBL) and who have an International Prognostic Index (IPI) score of 2 or greater.

Approval was based on POLARIX (NCT03274492), a randomized, double-blind, placebo-controlled trial in 879 patients with previously untreated large B-cell lymphoma and an IPI score of 2-5. The trial evaluated the superiority of substituting polatuzumab vedotin for vincristine in the R-CHOP (rituximab, cyclophosphamide, doxorubicin, vincristine, and prednisone) regimen. Patients were randomized (1:1) to receive either polatuzumab vedotin plus R-CHP (pola + R-CHP) or R-CHOP for six 21-day cycles, followed by two additional cycles of rituximab alone in both arms. The main diagnoses were de novo DLBCL, NOS (84%) and HGBL (11%)."

https://www.fda.gov/drugs/resources-information-approved-drugs/fda-approves-polatuzumab-vedotin-piiq-previously-untreated-diffuse-large-b-cell-lymphoma-not



Polatuzumab Vedotin plus Rituximab, Cyclophosphamide, Doxorubicin, and Prednisone (Pola-R-CHP) Versus Rituximab, Cyclophosphamide, Doxorubicin, Vincristine and Prednisone (R-CHOP) Therapy in Patients with Previously Untreated Diffuse Large B-cell Lymphoma (DLBCL): Results from the Phase III POLARIX Study

Neha Mehta-Shah,¹ Hervé Tilly,² Franck Morschhauser,³ Laurie H. Sehn,⁴ Jonathan W. Friedberg,⁵ Marek Trněný,⁶ Jeff P. Sharman,⁷ Charles Herbaux,⁸ John M. Burke,⁹ Matthew Matasar,¹⁰ Shinya Rai,¹¹ Koji Izutsu,¹² Lucie Oberic,¹³ Adrien Chauchet,¹⁴ Wojciech Jurczak,¹⁵ Yuqin Song,¹⁶ Richard Greil,¹⁷ Larysa Mykhalska,¹⁸ Juan Miguel Bergua-Burgués,¹⁹ Matthew C. Cheung,²⁰ Antonio Pinto,²¹ Ho-Jin Shin,²² Greg Hapgood,²³ Eduardo Munhoz,²⁴ Pau Abrisqueta,²⁵ Jyh-Pyng Gau,²⁶ Jamie Hirata,²⁷ Yanwen Jiang,²⁷ Mark Yan,²⁸ Calvin Lee,²⁷ Christopher Flowers,²⁹ Gilles Salles³⁰

Pan Pacific Lymphoma Conference 2022


POLARIX: Investigator-Assessed Progression-Free Survival (PFS) — Primary Endpoint





POLARIX: Subgroup Analysis

		Po (la-R-CHP N=440)	F (R-CHOP N=439)				
Baseline Risk Factors	Total N	n	2-year Rate	n	2-year Rate	- Hazard Ratio	95% Wald Cl	Pola-R-CHP Better	R-CHOP Better
ECOG PS 0-1 2	737 141	374 66	78.4 67.2	363 75	71.2 65.0	0.8 0.8	(0.6 to 1.0) (0.5 to 1.4)	, 	
IPI score IPI 2 IPI 3-5	334 545	167 273	79.3 75.2	167 272	78.5 65.1	1.0 0.7	(0.6 to 1.6) (0.5 to 0.9)		
Bulky disease Absent Present	494 385	247 193	82.7 69.0	247 192	70.7 69.7	0.6 1.0	(0.4 to 0.8) (0.7 to 1.5)		L
Baseline LDH ≤ULN >ULN	300 575	146 291	78.9 75.4	154 284	75.6 67.2	0.8 0.7	(0.5 to 1.3) (0.5 to 1.0)		
No. of extranodal sites 0-1 ≥2	453 426	227 213	80.2 73.0	226 213	74.5 65.8	0.8 0.7	(0.5 to 1.1) (0.5 to 1.0)		-
Cell-of-origin							••••		
GCB ABC Unclassified	352 221 95 211	184 102 44	75.1 83.9 73.0	168 119 51	76.9 58.8 86.2	1.0 0.4 1.9	(0.7 to 1.5) (0.2 to 0.6) < (0.8 to 4.5)		
Double expressor by IHC DEL Non DEL Unknown	211 290 438 151	139 223 78	75.5 77.7 76.0	151 215 73	63.1 75.7 69.8	0.7 0.6 0.9 0.8	(0.4 to 1.2) (0.4 to 1.0) (0.6 to 1.3) (0.4 to 1.5)		
Double- or triple-hit lymphoma Yes No Unknown	45 620 214	26 305 109	69.0 76.8 78.5	19 315 105	889 70.3 66.4	3.8 0.7 0.6	(0.8 to 17.6) (0.5 to 1.0) (0.4 to 1.1)		• •
							0.2	5 1	5

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FDA grants accelerated approval to epcoritamab-bysp for relapsed or refractory diffuse large B-cell lymphoma and high-grade B-cell lymphoma Press Release: May 19, 2023

"On May 19, 2023, the Food and Drug Administration granted accelerated approval to epcoritamab-bysp for relapsed or refractory diffuse large B-cell lymphoma (DLBCL) not otherwise specified, including DLBCL arising from indolent lymphoma, and high-grade B-cell lymphoma after two or more lines of systemic therapy.

Epcoritamab-bysp, a bispecific CD20-directed CD3 T-cell engager, was evaluated in EPCORE NHL-1 (NCT03625037), an open-label, multi-cohort, multicenter, single-arm trial in patients with relapsed or refractory B-cell lymphoma. The efficacy population consisted of 148 patients with relapsed or refractory DLBCL, not otherwise specified, including DLBCL arising from indolent lymphoma, and high-grade B-cell lymphoma after two or more lines of systemic therapy, including at least one anti-CD20 monoclonal antibody-containing therapy.

The main efficacy outcome measure was overall response rate (ORR) determined by Lugano 2014 criteria, as assessed by an Independent Review Committee. The ORR was 61% (95% CI: 53, 69) with 38% of patients achieving complete responses. With a median follow-up of 9.8 months among responders, the estimated median duration of response (DOR) was 15.6 months (95%CI: 9.7, not reached)."

https://www.fda.gov/drugs/drug-approvals-and-databases/fda-grants-accelerated-approval-epcoritamab-bysp-relapsed-or-refractory-diffuse-large-b-cell



ASH 2022; Abstract 444.

Odronextamab in Patients with Relapsed/Refractory (R/R) Diffuse Large B-Cell Lymphoma (DLBCL): Results from a Prespecified Analysis of the Phase 2 Study ELM-2

<u>Won Seog Kim¹</u>, Tae Min Kim², Seok-Goo Cho³, Isidro Jarque⁴, Elżbieta Iskierka⁵, Michelle Poon⁶, H. Miles Prince⁷, Sung Yong Oh⁸, Francesca Lim⁹, Cecilia Carpio¹⁰, Tran-Der Tan¹¹, Sabarish Ayyappan¹², Antonio Gutierrez¹³, Jingjin Li¹⁴, Melanie Ufkin¹⁴, Min Zhu¹⁴, Aafia Chaudhry¹⁴, Hesham Mohamed¹⁴, Srikanth Ambati¹⁴, Jan Walewski¹⁵, on behalf of ELM-2 Investigators

¹Samsung Medical Center, Center for Hematologic Malignancy, Seoul, South Korea; ²Seoul National University Hospital, Seoul, South Korea; ³The Catholic University of Korea, Seoul St. Mary's Hospital Hematology, Seoul, South Korea; ⁴Hospital Universitari i Politècnic La Fe, Valencia, Spain; ⁵Copernicus Memorial Hospital, Department of Hematology, Medical University of Łódź, Łódź, Poland; ⁶Hematology Oncology National University Hospital, Singapore; ⁷Epworth Healthcare and University of Melbourne, East Melbourne, Australia; ⁸Dong-A University Hospital, Busan, South Korea; ⁹Singapore General Hospital, Singapore; ¹⁰Department of Hematology, Vall d'Hebron Institute of Oncology (VHIO), University Hospital Vall d'Hebron, Autonomous University of Barcelona (UAB), Barcelona, Spain; ¹¹Hematology and Medical Oncology Koo Foundation Sun Yat Sen Cancer Center, Taipei City, Taiwan; ¹²University of Iowa Hospital and Clinics, Iowa City, IA, USA; ¹³Hospital Universitari Son Espases, IdISBa Palma, Spain; ¹⁴Regeneron Pharmaceuticals, Inc., Tarrytown, NY, USA; ¹⁵Narodowy Instytut Onkologii im. Marii Skłodowskiej-Curie Państwowy Instytut Badawczy, Warszawa, Poland

ClinicalTrials.gov ID: NCT03888105



ELM-2: DLBCL Cohort – Objective Response Rate

Best overall response	Independent central review N=130*	Investigator evaluation N=130*
Objective response rate (ORR) [†]	49.2% [95% CI 40.4%–58.1%]	50.0% [95% CI 41.1%–58.9%]
Complete response	30.8%	36.2%
Partial response	18.5%	13.8%
Stable disease	3.8%	3.1%
Progressive disease	22.3%	21.5%

Week 12 response assessment by independent central review	1/20 step-up regimen N=67	0.7/4/20 step-up regimen N=63
ORR	46.3% [95% CI: 34.0–58.9%]	42.9% [95% Cl: 30.5–56.0%]
Complete response	26.9%	20.6%

Median opportunity of follow-up: 21.3 months (range 2.6–29.8)

- 63% of responders achieved a complete response
- Consistent efficacy observed at Week 12 regardless of Cycle 1 step-up regimen



Glofitamab Plus R-CHOP Induces High Response Rates and a Favorable Safety Profile in Patients with Previously Untreated Diffuse Large B-Cell Lymphoma (DLBCL): Results from a Phase Ib Study

Max S. Topp,¹ Monica Tani,² Michael Dickinson,³ Nilanjan Ghosh,⁴ Armando Santoro,⁵ Antonio Pinto,⁶ Francesc Bosch,⁷ Christopher P. Fox,⁸ Armando Lopez Guillermo,⁹ Claudia Carlucci,¹⁰ Chun Wu,¹¹ Kathryn Humphrey,¹⁰ Pauline Baumlin,¹² Martin Barrett,¹⁰ Naseer Qayum,¹⁰ Franck Morschhauser¹³

¹Universitätsklinikum Würzburg, Würzburg, Germany; ²Ospedale Santa Maria delle Croci, Ravenna, Italy; ³The Peter MacCallum Cancer Centre, Royal Melbourne Hospital and The University of Melbourne, Australia; ⁴Levine Cancer Institute/Atrium Health, Charlotte, NC, USA; ⁵Humanitas University and IRCCS Humanitas Research Hospital, Humanitas Cancer Center, Milan, Italy; ⁶Istituto Nazionale Tumori, Fondazione 'G. Pascale', IRCCS, Naples, Italy; ⁷Department of Hematology Hospital Vall d'Hebron, Barcelona, Spain; ⁸Nottingham University Hospitals NHS Trust, Nottingham, United Kingdom; ⁹Hospital Clínic de Barcelona, Barcelona, Spain; ¹⁰Roche Products Ltd, Welwyn Garden City, United Kingdom; ¹¹Roche (China) Holding Ltd, Shanghai, China; ¹²F. Hoffmann-La Roche Ltd, Basel, Switzerland; ¹³Hôpital Claude Huriez Universitaire Lille, CHU Lille, ULR 7365 - GRITA - Groupe de Recherche sur les formes Injectables et les Technologies Associées and Centre Hospitalier Régional Universitaire de Lille, Lille, France.

ASH 2022; Abstract 737.



First-Line Glofitamab plus R-CHOP: Antitumor Activity



CMR = complete molecular response; PMR = partial molecular response; PD = progressive disease



Topp MS et al. ASH 2022; Abstract 737.

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- CAR T-cell therapy



Primary Overall Survival Analysis of the Phase 3 Randomized ZUMA-7 Study of Axicabtagene Ciloleucel versus Standard-of-Care Therapy in Relapsed/Refractory Large B-Cell Lymphoma

Westin J et al. ASCO 2023;Abstract LBA107.

Monday, June 5; 10:09 AM CDT



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Lancet Haematol 2020;7:e511-22.

Selinexor in patients with relapsed or refractory diffuse large B-cell lymphoma (SADAL): a single-arm, multinational, multicentre, open-label, phase 2 trial

CrossMark

Nagesh Kalakonda*, Marie Maerevoet*, Federica Cavallo, George Follows, Andre Goy, Joost S P Vermaat, Olivier Casasnovas, Nada Hamad, Josée M Zijlstra, Sameer Bakhshi, Reda Bouabdallah, Sylvain Choquet, Ronit Gurion, Brian Hill, Ulrich Jaeger, Juan Manuel Sancho, Michael Schuster, Catherine Thieblemont, Fátima De la Cruz, Miklos Egyed, Sourav Mishra, Fritz Offner, Theodoros P Vassilakopoulos, Krzysztof Warzocha, Daniel McCarthy, Xiwen Ma, Kelly Corona, Jean-Richard Saint-Martin, Hua Chang, Yosef Landesman, Anita Joshi, Hongwei Wang, Jatin Shah, Sharon Shacham, Michael Kauffman, Eric Van Den Neste, Miguel A Canales



SADAL: Efficacy and Safety of Selinexor for R/R DLBCL After at Least 2 Previous Lines of Chemoimmunotherapy





Kalakonda N et al. Lancet Haematol 2020;7:e511-22.

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Epcoritamab + R2 Regimen and Responses in High-Risk Follicular Lymphoma, Regardless of POD24 Status

Merryman R et al. ASCO 2023;Abstract 7506. Monday, June 5; 11:45 AM CDT



ASH 2022; Abstract 610.

Mosunetuzumab Monotherapy Demonstrates Durable Efficacy with a Manageable Safety Profile in Patients with Relapsed/Refractory Follicular Lymphoma who Received ≥2 Prior Therapies: Updated Results from a Pivotal Phase II Study

<u>Nancy L. Bartlett</u>,¹ Laurie H. Sehn,² Matthew Matasar,³ Stephen J. Schuster,⁴ Sarit Assouline,⁵ Pratyush Giri,⁶ John Kuruvilla,⁷ Miguel Canales,⁸ Sascha Dietrich,⁹ Keith Fay,¹⁰ Matthew Ku,¹¹ Loretta Nastoupil,¹² Michael C. Wei,¹³ Shen Yin,¹³ Iris To,¹³ Huang Huang,¹⁴ Juliana Min,¹⁵ Elicia Penuel,¹³ Christopher R. Bolen,¹³ L. Elizabeth Budde¹⁶

¹Siteman Cancer Center, Washington University School of Medicine, St. Louis, MO, USA; ²BC Cancer Centre for Lymphoid Cancer and University of British Columbia, Vancouver, BC, Canada; ³Memorial Sloan Kettering Cancer Center, New York, NY, USA; ⁴Lymphoma Program, Abramson Cancer Center, University of Pennsylvania, Philadelphia, PA, USA; ⁵Jewish General Hospital, McGill University, Montreal, QC, Canada; ⁶Royal Adelaide Hospital, Adelaide, Australia; ⁷Princess Margaret Cancer Centre, Toronto, ON, Canada; ⁸Hospital Universitario La Paz, Madrid, Spain; ⁹Universitat Heidelberg, Heidelberg, Germany; ¹⁰St Vincent's Hospital and Royal North Shore Hospital, Sydney, Australia; ¹¹St Vincent's Hospital, University of Melbourne, Melbourne, Australia; ¹²MD Anderson Cancer Center, Houston, TX, USA; ¹³Genentech, Inc., South San Francisco, CA, USA; ¹⁴Hoffmann-La Roche Ltd, Mississauga, Canada; ¹⁵Roche Products Ltd, Welwyn Garden City, United Kingdom; ¹⁶City of Hope National Medical Center, Duarte, CA, USA.



Odronextamab in Patients with Relapsed/Refractory (R/R) Follicular Lymphoma (FL) Grade 1–3a: Results from a Prespecified Analysis of the Phase 2 Study ELM-2

Tae Min Kim¹, Michal Taszner², Seok-Goo Cho³, Silvana Novelli⁴, Steven Le Gouill⁵, Michelle Poon⁶, Jose C. Villasboas⁷, Rebecca Champion⁸, Emmanuel Bachy⁹, Stephanie Guidez¹⁰, Aranzazu Alonso¹¹, Deepa Jagadeesh¹², Michele Merli¹³, David Tucker¹⁴, Jingxian Cai¹⁵, Carolina Leite de Oliveira¹⁵, Min Zhu¹⁵, Aafia Chaudhry¹⁵, Hesham Mohamed¹⁵, Srikanth Ambati¹⁵, Stefano Luminari¹⁶, on behalf of ELM-2 Investigators

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ClinicalTrials.gov ID: NCT03888105

This study was funded by Regeneron Pharmaceuticals, Inc.

Medical writing support was provided by Lewis Cawkwell of Arc, a division of Spirit Medical Communications Group Limited, and funded by Regeneron Pharmaceuticals, Inc. Presented at the 64th American Society of Hematology (ASH) Annual Meeting and Exposition, December 10–13, 2022, New Orleans, LA, USA.



Kim TM et al. ASH 2022; Abstract 949.

Module 1 — Hodgkin Lymphoma

• First-line therapy

Module 2 — Diffuse Large B-Cell Lymphoma

- First-line therapy
- Bispecific antibodies
- CAR T-cell therapy
- Selinexor

Module 3 — Follicular Lymphoma

• Bispecific antibodies

Module 4 — Mantle Cell Lymphoma

- BTK inhibitors
- CAR T-cell therapy



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Update on Ibrutinib US Accelerated Approvals for Mantle Cell Lymphoma and Marginal Zone Lymphoma Indications Press Release: April 6, 2023

"The manufacturer announced today the intent to voluntarily withdraw, in the U.S., accelerated ibrutinib approvals for patients with the blood cancers mantle cell lymphoma (MCL) who have received at least one prior therapy and with marginal zone lymphoma (MZL) who require systemic therapy and have received at least one prior anti-CD20-based therapy.

Other approved indications for ibrutinib in the U.S. are not affected. This voluntary action is due to requirements related to the accelerated approval status granted by the U.S. FDA for MCL and MZL. These indications were approved via this pathway based on overall response rates in Phase 2 clinical studies. To confirm clinical benefit following accelerated approvals, additional studies are required by the FDA."

https://news.abbvie.com/news/press-releases/update-on-imbruvica-ibrutinib-us-accelerated-approvals-for-mantle-cell-lymphomaand-marginal-zone-lymphoma-indications.htm



TRIANGLE:

AUTOLOGOUS <u>TRANSPLANTATION AFTER A</u> <u>RITUXIMAB/IBRUTINIB/ARA-C CONTAINING INDUCTION</u> IN <u>GENERALIZED MANTLE CELL LYMPHOMA</u> – A RANDOMIZED <u>EUROPEAN MCL NETWORK TRIAL</u>



M Dreyling, J Doorduijn, E Giné, M Jerkeman, J Walewski, M Hutchings, U Mey, J Riise, M Trneny, V Vergote, M Celli, O Shpilberg, M Gomes da Silva, S Leppa, L Jiang, C Pott, W Klapper, D Gözel, C Schmidt, M Unterhalt, M Ladetto*, E Hoster*

LMU University Hospital Munich, Germany; Erasmus MC Cancer Institute, University Medical Center Rotterdam, Netherlands; Hospital Clinic of Barcelona, Spain; Skane University Hospital and Lund University, Lund, Sweden; Maria Sklodowska-Curie National Research Institute of Oncology, Warsaw, Poland; Rigshospitalet, Copenhagen University Hospital, Denmark; Kantonsspital Graubuenden, Chur, Switzerland; Oslo University Hospital, Oslo, Norway; Charles University and General University Hospital, Prague, Czech Republic; University Hospitals Leuven, Belgium; Ospedale degli Infermi di Rimini, Italy: Assuta Ramat Hahayal Medical Center, Tel Aviv, Israel; Instituto Português de Oncologia, Lisboa, Portugal; Helsinki University Hospital Comprehensive Cancer Center, Finland; IBE, LMU University Munich, Germany; University of Schleswig-Holstein, Kiel, Germany; Az Ospedaliera Santi Antonio e Biagio e Cesare Arrigo, Alessandria, Italy

ASH 2022; Abstract 1.



TRIANGLE Phase III Trial Design

- MCL patients
- previously untreated
- stage II-IV
- younger than 66 years
- suitable for HA and ASCT
- ECOG 0-2
- Primary outcome: FFS
- Secondary outcomes:
 - Response rates
 - PFS, RD
 - OS
 - Safety



- R maintenance was added following national guidelines in all 3 trial arms
- Rituximab maintenance (without or with Ibrutinib) was started in 168 (58 %)/165 (57 %)/158 (54 %) of A/A+I/I randomized patients.



ORIGINAL ARTICLE

Ibrutinib plus Bendamustine and Rituximab in Untreated Mantle-Cell Lymphoma

Michael L. Wang, M.D., Wojciech Jurczak, M.D., Ph.D., Mats Jerkeman, M.D., Ph.D., Judith Trotman, F.R.A.C.P., Pier L. Zinzani, M.D., Ph.D., David Belada, M.D., Ph.D., Carola Boccomini, M.D., Ian W. Flinn, M.D., Ph.D., Pratyush Giri, F.R.A.C.P., Andre Goy, M.D., Paul A. Hamlin, M.D., Olivier Hermine, M.D., Ph.D., José-Ángel Hernández-Rivas, M.D., Ph.D., Xiaonan Hong, M.D., Seok Jin Kim, M.D., Ph.D., David Lewis, F.R.C.Path., Ph.D., Yuko Mishima, M.D., Ph.D., Muhit Özcan, M.D., Guilherme F. Perini, M.D., Christopher Pocock, M.D., Ph.D., Yuqin Song, M.D., Ph.D., Stephen E. Spurgeon, M.D., John M. Storring, M.D., Jan Walewski, M.D., Jun Zhu, M.D., Ph.D., Rui Qin, Ph.D., Steven Le Gouill, M.D., Ph.D., and Martin Dreyling, M.D., for the SHINE Investigators*

N Engl J Med 2022;386(26):2482-2494.



SHINE: Phase III Trial of Ibrutinib Plus Bendamustine and Rituximab in MCL



- The percentage of patients with a complete response was 65.5% in the ibrutinib group and 57.6% in the placebo group (P = 0.06)
- Overall survival was similar in the two groups (HR, 1.07)
- The safety profile of the combined therapy was consistent with the known profiles of the individual drugs



Wang ML et al. N Engl J Med 2022;386(26):2482-2494.

FDA Grants Accelerated Approval to Pirtobrutinib for Patients with Relapsed or Refractory Mantle Cell Lymphoma Press Release: January 27, 2023

On January 27, 2023, the Food and Drug Administration (FDA) granted accelerated approval to pirtobrutinib for relapsed or refractory mantle cell lymphoma (MCL) after at least 2 lines of systemic therapy, including a BTK inhibitor.

"Pirtobrutinib was approved under the FDA's Accelerated Approval pathway based on response rate from the open-label, single-arm, international, Phase 1/2 study, called the BRUIN trial. Continued approval for this indication may be contingent upon verification and description of clinical benefit in a confirmatory trial."

"In the BRUIN Phase 1/2 trial, covalent BTK inhibitor pre-treated patients with relapsed or refractory MCL achieved an overall response rate of 50%, with 13% of patients achieving a complete response [with pirtobrutinib]."

"Pirtobrutinib, a highly selective kinase inhibitor, utilizes a novel binding mechanism and is the first and only FDA approved non-covalent (reversible) BTK inhibitor. Pirtobrutinib can reestablish BTK inhibition in MCL patients previously treated with a covalent BTK inhibitor (ibrutinib, acalabrutinib, or zanubrutinib) and extend the benefit of targeting the BTK pathway."

https://www.fda.gov/drugs/resources-information-approved-drugs/fda-grants-accelerated-approval-pirtobrutinib-relapsed-or-refractory-mantle-cell-lymphoma?utm_medium=email&utm_source=govdelivery; https://finance.yahoo.com/news/u-fda-approves-jaypirca-pirtobrutinib-190700019.html





Efficacy of Pirtobrutinib in Covalent BTK-Inhibitor Pre-Treated Relapsed / Refractory Mantle Cell Lymphoma: Additional Patients and Extended Follow-up from the Phase 1/2 BRUIN Study

<u>Michael L. Wang¹</u>, Nirav N. Shah², Wojciech Jurczak³, Pier Luigi Zinzani⁴, Toby A. Eyre⁵, Chan Y. Cheah⁶, Chaitra S. Ujjani⁷, Youngil Koh⁸, Koji Izutsu⁹, James N. Gerson¹⁰, Ian Flinn¹¹, Benoit Tessoulin¹², Alvaro J. Alencar¹³, Shuo Ma¹⁴,
Ewa Lech-Maranda¹⁵, Joanna Rhodes¹⁶, Krish Patel¹⁷, Jennifer Woyach¹⁸, Nicole Lamanna¹⁹, Yucai Wang²⁰, Constantine Tam²¹, Talha Munir²², Hirokazu Nagai²³, Francisco Hernandez-Ilizaliturri²⁴, Anita Kumar²⁵, John F. Seymour²¹, Andrew Zelenetz²⁵, Preteesh Jain²⁶, Binoj Nair²⁷, Donald E. Tsai²⁷, Minna Balbas²⁷, Richard A. Walgren²⁷, Paolo Abada²⁷, Chunxiao Wang²⁸, Junjie Zhao²⁷, Anthony R. Mato²⁵

¹MD Anderson Cancer Center, Houston, USA; ²Medical College of Wisconsin, Milwaukee, USA; ³Maria Sklodowska-Curie National Research Institute of Oncology, Krakow, Poland; ⁴Institute of Hematology "Seràgnoli" University of Bologna, Bologna Italy; ⁵Oxford University Hospitals NHS Foundation Trust, Churchill Cancer Center, Oxford, UK; ⁶Linear Clinical Research and Sir Charles Gairdner Hospital, Perth, Australia; ⁷Fred Hutchinson Cancer Research Center, University of Washington, USA; ⁸Department of Internal Medicine, Seoul National University Hospital, Seoul, Korea; ⁹National Cancer Center Hospital, Tokyo, Japan; ¹⁰Lymphoma Program, Abramson Cancer Center, USA; ¹¹Sarah Cannon Research Institute/Tennessee Oncology, Nashville, USA; ¹²Haematology Department, University Hospital, Nantes, France; ¹³Sylvester Comprehensive Cancer Center, Miami, USA; ¹⁴Robert H. Lurie Comprehensive Cancer Center, Division of Hematology and Oncology, Northwestern University Feinberg School of Medicine, Chicago, USA; ¹⁵Institute of Hematology and Transfusion Medicine, Warsaw, Poland; ¹⁶Division of Hematology and Oncology, Department of Medicine, Hospital of the University of Pennsylvania, Philadelphia, USA; ¹⁷Center for Blood Disorders and Cellular Therapy, Swedish Cancer Institute, Seattle, USA; ¹⁸The Ohio State University Comprehensive Cancer Center, Columbus, USA; ¹⁹Herbert Irving Comprehensive Cancer Center, Columbia University, USA; ²⁰Division of Hematology, Mayo Clinic, Rochester, USA; ²¹Peter MacCallum Cancer Centre, Royal Melbourne Hospital and University of Melbourne, Melbourne, Victoria, Australia; ²²Department of Haematology, St. James's University Hospital, Leeds, UK; ²³Department of Hematology, National Hospital Organization Nagoya Medical Center, Aichi, Japan; ²⁴Department of Medicine, Roswell Park Comprehensive Cancer Center, Buffalo, USA; ²⁵Memorial Sloan Kettering Cancer Center, New York, USA; ²⁶Department of Lymphoma and Myeloma, University of Texas MD Anderson Cancer C

ASH 2022; Abstract 4218.



Pirtobrutinib Efficacy in Patients with MCL



Data cutoff date of 31 January 2022. Data for 18 patients are not shown in the waterfall plot due to no measurable target lesions identified by CT at baseline, discontinuation prior to first response assessment, or lack of adequate imaging in follow-up. *Indicates patients with >100% increase in SPD. aORR includes patients with a best response of CR and PR. b9 cBTKi pre-treated MCL patients were not evaluable. c1 cBTKi naïve patient was not evaluable. Response status per Lugano 2014 criteria based on IRC assessment.

cBTKi = covalent Bruton tyrosine kinase inhibitor; CR = complete response; PR = partial response; SD = stable disease; PD = progressive disease



Wang ML et al. ASH 2022; Abstract 4218.

Wang et al. J Hematol Oncol (2021) 14:179 https://doi.org/10.1186/s13045-021-01188-x

Concurrent ibrutinib plus venetoclax in relapsed/refractory mantle cell lymphoma: the safety run-in of the phase 3 SYMPATICO study

Michael Wang^{1*}, Radhakrishnan Ramchandren², Robert Chen³, Lionel Karlin⁴, Geoffrey Chong⁵, Wojciech Jurczak⁶, Ka Lung Wu⁷, Mark Bishton⁸, Graham P. Collins⁹, Paul Eliadis¹⁰, Frédéric Peyrade¹¹, Yihua Lee¹², Karl Eckert¹², Jutta K. Neuenburg¹² and Constantine S. Tam¹³

RAPID COMMUNICATION

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Hematology & Oncology





Journal of

SYMPATICO: Efficacy Outcomes with Concurrent Ibrutinib and Venetoclax in Relapsed/Refractory MCL



- Median duration of response was 32.3 months
- Median progression-free survival was 35.0 months
- Median overall survival was also 35.0 months



Wang M et al. J Hematol Oncol 2021;14(1):179.



CLINICAL TRIALS AND OBSERVATIONS

Ibrutinib, obinutuzumab, and venetoclax in relapsed and untreated patients with mantle cell lymphoma: a phase 1/2 trial

Steven Le Gouill,¹ Franck Morschhauser,² David Chiron,³ Krimo Bouabdallah,⁴ Guillaume Cartron,⁵ Olivier Casasnovas,⁶ Caroline Bodet-Milin,⁷ Sylviane Ragot,⁸ Céline Bossard,⁹ Nathalie Nadal,⁶ Charles Herbaux,¹⁰ Benoit Tessoulin,¹ Emmanuelle Tchernonog,¹¹ Cédric Rossi,⁶ Rory McCulloch,¹² Thomas Gastinne,¹³ Mary B. Callanan,^{8,*} and Simon Rule^{12,*}



Ibrutinib, Obinutuzumab and Venetoclax for Relapsed and Untreated MCL: Response at End of Cycle 6

	Cohort A: relapsed patients, ibrutinib and obinutuzumab (n = 9)	Cohort B: relapsed patients, ibrutinib, obinutuzumab, and venetoclax (n = 24)	Cohort C: untreated patients, ibrutinib, obinutuzumab, and venetoclax (n = 15)
Response at end of cycle 6 (Cheson 99)			
CR/CRu	7 (78)	16 (67)	12 (80)
PR	O (O)	2 (8)	2 (13)
SD	1 (11)	—	—
PD	1 (11)	4 (17)	1 (7)
Not done	—	2 (8)†	—
Response at end of cycle 6 (Lugano)			
CR	7 (78)	16 (67)	13 (86)
PR	1 (11)	1 (4)	1 (7)
PD	1 (11)	5 (21)	1 (7)
Not done	—	2 (8)†	—



Module 1 — Hodgkin Lymphoma

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Module 2 — Diffuse Large B-Cell Lymphoma

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- CAR T-cell therapy
- Selinexor

Module 3 — Follicular Lymphoma

• Bispecific antibodies

Module 4 — Mantle Cell Lymphoma

- BTK inhibitors
- CAR T-cell therapy



Real-world outcomes of brexucabtagene autoleucel (brexucel) for relapsed or refractory (R/R) mantle cell lymphoma (MCL): A CIBMTR subgroup analysis by prior treatment.

Kambhampati S et al. ASCO 2023;Abstract 7507. Monday, June 5; 11:57 AM CDT



Meet The Professors Live: Clinical Investigators Provide Perspectives on Actual Cases of Patients with Chronic Lymphocytic Leukemia

A CME Symposium Held in Conjunction with the 2023 ASCO[®] Annual Meeting

Faculty John N Allan, MD Susan O'Brien, MD

> Moderator Neil Love, MD



Module 1 — First-Line Treatment of Chronic Lymphocytic Leukemia

- BTK inhibitors
- Venetoclax combinations

Module 2 — Relapsed/Refractory Disease

- BTK inhibitors
- Venetoclax combinations

Module 3 — Richter's Transformation



Module 1 — First-Line Treatment of Chronic Lymphocytic Leukemia

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Frontline Phase III Randomized Trials in CLL

BTKi	BCL2i	Novel-novel
RESONATE-2 (>65 or comorbidities) Ibrutinib vs. Chlorambucil	CLL14 (CIRS >6; CrCl <70 mL/min) Venetoclax + O vs. Chlorambucil + O	GLOW (>65 or comorbidities) Ibrutinib + Venetoclax vs.
iLLUMINATE (PCYC-1130) (>65 or comorbidities)		Chiorambucii + O
Ibrutinib + O vs. Chlorambucil + O		CLL13 (>65yo or ≤65yo with comorbidities)
Ibrutinib + R vs. FCR		I+V+O vs. Ven+O vs. Ven+R vs. FCR/BR
Alliance A041202 (>65) Ibrutinib vs. Ibrutinib + R vs. BR		
ELEVATE-TN (>65 or comorbidities) Acala vs. Acala + O vs. Chlorambucil + O		
SEQUOIA [≥65 OR comorbidities; non-del(17p)] Zanubrutinib vs. BR		

FLAIR [≤75; non-del(17p)] Ibrutinib + R vs. FCR

Courtesy of Alexy Danilov, MD, PhD

Acalabrutinib ± Obinutuzumab versus Obinutuzumab + Chlorambucil in Treatment-Naïve Chronic Lymphocytic Leukemia: Five-Year Follow-Up of ELEVATE-TN

Sharman JP et al. ASCO 2022;Abstract 7539.



ELEVATE-TN: Investigator-Assessed PFS





Sharman JP et al. ASCO 2022; Abstract 7539.

FDA Approves Zanubrutinib for Chronic Lymphocytic Leukemia or Small Lymphocytic Lymphoma Press Release: January 19, 2023

"On January 19, 2023, the Food and Drug Administration approved zanubrutinib for chronic lymphocytic leukemia (CLL) or small lymphocytic lymphoma (SLL).

Efficacy in patients with treatment-naïve CLL/SLL was evaluated in SEQUOIA (NCT03336333). In the randomized cohort including patients without 17p deletion, a total of 479 patients were randomized 1:1 to receive either zanubrutinib until disease progression or unacceptable toxicity or bendamustine plus rituximab (BR) for 6 cycles.

Efficacy in patients with relapsed or refractory CLL/SLL was evaluated in ALPINE (NCT03734016). A total of 652 patients were randomized 1:1 to receive either zanubrutinib or ibrutinib.

The recommended zanubrutinib dosage is 160 mg taken orally twice daily or 320 mg taken orally once daily until disease progression or unacceptable toxicity."

https://www.fda.gov/drugs/resources-information-approved-drugs/fda-approves-zanubrutinib-chronic-lymphocytic-leukemia-or-small-lymphocytic-lymphoma



SEQUOIA: Progression-Free Survival by IRC (ITT)





Frequency of Adverse Events in Landmark Studies of Currently Approved BTKis in Treatment-Naïve CLL

	Ibrutinib		Acalabrutinib		Zanubrutinib*	
Advorso	RESONATE2 TN (n = 135)		ELEVATE-TN TN (n = 179)		SEQUOIA TN (n = 240)	
event	All grades	Grade ≥ 3	All grades	Grade ≥ 3	All grades	Grade ≥ 3
Atrial fibrillation	10%	4%	3.6%	NR	3.3%	0.4%
Bleeding	7%	6%	39%	2%	41%	3%
Hypertension	14%	4%	5%	2%	6%	6%
Arthralgia	20%	2%	16%	0.6%	13%	1%
Infection	NR	23%	65%	14%	62.2%	16.3%
Diarrhea	42%	4%	35%	0.6%	13%	1%

* In patients without del(1)(p13.1)

Lipsky A, Lamanna N. Hematology Am Soc Hematol Educ Program 2020 Dec 4;2020(1):336-45. Tam CS et al. Lancet Oncol 2022;23:1031-43.



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VOL. 388 NO. 19 1739-54.

First-Line Venetoclax Combinations in Chronic Lymphocytic Leukemia

B. Eichhorst, C.U. Niemann, A.P. Kater, M. Fürstenau, J. von Tresckow, C. Zhang, S. Robrecht, M. Gregor,
G. Juliusson, P. Thornton, P.B. Staber, T. Tadmor, V. Lindström, C. da Cunha-Bang, C. Schneider, C.B. Poulsen,
T. Illmer, B. Schöttker, T. Nösslinger, A. Janssens, I. Christiansen, M. Baumann, H. Frederiksen, M. van der Klift,
U. Jäger, M.B.L. Leys, M. Hoogendoorn, K. Lotfi, H. Hebart, T. Gaska, H. Koene, L. Enggaard, J. Goede, J.C. Regelink,
A. Widmer, F. Simon, N. De Silva, A.-M. Fink, J. Bahlo, K. Fischer, C.-M. Wendtner, K.A. Kreuzer, M. Ritgen,
M. Brüggemann, E. Tausch, M.-D. Levin, M. van Oers, C. Geisler, S. Stilgenbauer, and M. Hallek, for the GCLLSG,
the HOVON and Nordic CLL Study Groups, the SAKK, the Israeli CLL Association, and Cancer Trials Ireland*



CLL13/GAIA: MRD in Peripheral Blood at Month 15



MRD = minimal residual disease



CLL13/GAIA: Progression-Free Survival in All Patients





Agenda

Module 1 — First-Line Treatment of Chronic Lymphocytic Leukemia

- BTK inhibitors
- Venetoclax combinations

Module 2 — Relapsed/Refractory Disease

- BTK inhibitors
- Venetoclax combinations

Module 3 — Richter's Transformation



Acalabrutinib Versus Ibrutinib in Previously Treated Chronic Lymphocytic Leukemia: Results of the First Randomized Phase III Trial -- ELEVATE RR

John C. Byrd, MD¹; Peter Hillmen, MD, MBChB, PhD²; Paolo Ghia, MD, PhD^{3,4}; Arnon P. Kater, MD, PhD⁵; Asher Chanan-Khan, MD⁶; Richard R. Furman, MD⁷; Susan O'Brien, MD⁸; Mustafa Nuri Yenerel, MD⁹; Arpad Illés, MD¹⁰; Neil Kay, MD¹¹; Jose A. Garcia-Marco, MD, PhD¹²; Anthony Mato, MD¹³; Javier Pinilla-Ibarz, MD, PhD¹⁴; John F. Seymour, PhD¹⁵; Stephane Lepretre, MD^{16,17}; Stephan Stilgenbauer, MD¹⁸; Tadeusz Robak, PhD¹⁹; Wayne Rothbaum, MS²⁰; Raquel Izumi, PhD²⁰; Ahmed Hamdy, MD²⁰; Priti Patel, MD²¹; Kara Higgins, MS²¹; Sophia Sohoni, MD²¹; and Wojciech Jurczak, MD, PhD²²

repor

J Clin Oncol 2021 Nov 1;39(31):3441-52.

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State of a Randomized Phase III Trial
State of a Randomized Phase III Trial

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Constantine S. Tam, MBBS, MD⁶⁹; Lugui Qiu, MD, PhD¹⁰; Maciej Kazmierczak, MD, PhD¹¹; Keshu Zhou, MD, PhD¹²;

Martin Šimkovič, MD, PhD^{13,14}; Jiří Mayer, MD¹⁵; Amanda Gillespie-Twardy, MD¹⁶; Mazyar Shadman, MD, MPH^{17,18}; Alessandra Ferrajoli, MD¹⁹; Peter S. Ganly, BMBCh, PhD²⁰; Robert Weinkove, MBBS, PhD^{21,22}; Sebastian Grosicki, MD, PhD²³; Andrzej Mital, MD, PhD²⁴; Tadeusz Robak, MD, PhD²⁵; Anders Österborg, MD, PhD^{26,27}; Habte A. Yimer, MD²⁸; Tommi Salmi, MD²⁹; Meng Ji, MD³⁰; Jessica Yecies, PhD²⁹; Adam Idoine, PhD²⁹; Kenneth Wu, PhD²⁹; Jane Huang, MD²⁹; and Wojciech Jurczak, MD, PhD³¹

J Clin Oncol 2023;[Online ahead of print].



ELEVATE-RR and ALPINE: Cardiac, Hypertension and Bleeding Events

	ELEVATE-RR ¹			ALPINE ²				
	Acalabrutinib (n = 266)		Ibrutinib (n = 263)		Zanubrutinib (n = 324)		lbrutinib (n = 324)	
	Any grade	Grade ≥3	Any grade	Grade ≥3	Any grade	Grade ≥3	Any grade	Grade ≥3
Any cardiac event	24.1%	8.6%	30.0%	9.5%	21.3%	NR	29.6%	NR
Atrial fibrillation/flutter	9.4%	4.9%	16.4%	3.8%	5.2%	2.5%	13.3%	4.0\$
Hypertension	8.6%	4.1%	23.2%	9.1%	23.5%	15.1%	22.8%	13.6%
Hemorrhage	38.0%	3.8%	51.3%	4.6%	42.3%	3.4%	41.4%	3.7%

NR = not reported



¹ Byrd JC et al. *J Clin Oncol* 2021;39:3441-2452; ² Brown JR et al. *N Engl J Med* 2022 Dec 13;[Online ahead of print].

ELEVATE-RR and ALPINE: Any-Grade Cardiac Event





¹ Byrd JC et al. J Clin Oncol 2021;39:3441-2452; ² Brown JR et al. N Engl J Med 2022 Dec 13;[Online ahead of print].

ASH 2022; Abstract 961.

Efficacy of Pirtobrutinib in Covalent BTK-Inhibitor Pre-Treated Relapsed / Refractory CLL/SLL: Additional Patients and Extended Follow-up from the Phase 1/2 BRUIN Study

Anthony R. Mato¹, Jennifer A. Woyach², Jennifer R. Brown³, Paolo Ghia⁴, Krish Patel ⁵, Toby A. Eyre⁶, Talha Munir⁷, Ewa Lech-Maranda⁸, Nicole Lamanna⁹, Constantine S. Tam¹⁰, Nirav N. Shah¹¹, Catherine C. Coombs¹², Chaitra S. Ujjani¹³, Manish R. Patel¹⁴, Bita Fakhri¹⁵, Chan Y. Cheah¹⁶, Alvaro J. Alencar¹⁷, Jonathon B. Cohen¹⁸, James N. Gerson¹⁹, Ian W. Flinn²⁰, Shuo Ma²¹, Deepa Jagadeesh²², Joanna M. Rhodes²³, Francisco Hernandez-Ilizaliturri²⁴, John F. Seymour¹⁰, Pier Luigi Zinzani²⁵, Minna Balbas²⁶, Binoj Nair²⁶, Paolo Abada²⁶, Chunxiao Wang²⁷, Amy S. Ruppert²⁷, Denise Wang²⁶, Donald E. Tsai²⁶, William G. Wierda²⁸, Wojciech Jurczak²⁹



BRUIN: Pirtobrutinib Efficacy in CLL/SLL Patients Who Received Prior Bruton Tyrosine Kinase Inhibitor (BTKi) Treatment





Mato AR et al. ASH 2022;Abstract 961.

BRUIN: Progression-Free Survival in CLL/SLL Patients Who Received Prior BTKi Treatment



 Median follow-up of 19.4 months for patients who received prior BTKi

All prior BTKi patients

 Median follow-up of 18.2 months for patients who received prior BTKi and BCL2i

Prior BTKi and BCL2i patients





CLINICAL TRIALS AND OBSERVATIONS

Enduring undetectable MRD and updated outcomes in relapsed/refractory CLL after fixed-duration venetoclax-rituximab

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MURANO: Median PFS and OS with 5 Years of Follow-Up





Seymour JF et al. Blood 2022 Aug 25;140(8):839-850.

Agenda

Module 1 — First-Line Treatment of Chronic Lymphocytic Leukemia

- BTK inhibitors
- Venetoclax combinations

Module 2 — Relapsed/Refractory Disease

- BTK inhibitors
- Venetoclax combinations

Module 3 — Richter's Transformation

Results of MOLTO, A Multicenter, Open Label, Phase II Clinical Trial Evaluating Venetoclax, Atezolizumab and Obinutuzumab Combination in Richter Syndrome

Frustaci AM et al. ASCO 2023;Abstract 7502. Monday, June 5; 10:09 AM CDT



ASH 2022; Abstract 347

Efficacy of Pirtobrutinib, a Highly Selective, Non-Covalent (Reversible) BTK Inhibitor in Richter Transformation: Results From the Phase 1/2 BRUIN Study

<u>William G. Wierda¹</u>, David Lewis², Paolo Ghia³, Nirav N. Shah⁴, Catherine C. Coombs⁵, Chan Y. Cheah⁶, Jennifer Woyach⁷, Nicole Lamanna⁸, Joanna M. Rhodes⁹, Marc S. Hoffmann¹⁰, Shuo Ma¹¹, Toby A. Eyre¹², Talha Munir¹³, Manish R. Patel¹⁴, Alvaro J. Alencar¹⁵, Constantine S. Tam¹⁶, Wojciech Jurczak¹⁷, Ewa Lech-Maranda¹⁸, John F. Seymour¹⁶, Lindsey E. Roeker¹⁹, Philip A. Thompson¹, Paolo B. Abada²⁰, Chunxiao Wang²¹, Amy S. Ruppert²¹, Binoj Nair²⁰, Hui Liu²⁰, Donald E. Tsai²⁰, Anthony R. Mato¹⁹



BRUIN: Pirtobrutinib Efficacy in RT Patients



• Among 75 response-evaluable patients, the median time-to-response was 1.8 months (range, 0.9-9.2), median time on study was 6.7 months (range, 0.7-29.1), and median time on treatment was 3.4 months (range, 0.2-26.7)



Wierda WG et al. ASH 2022; Abstract 347.

BRUIN in RT: Conclusions

- This trial represents one of the largest prospective RT populations ever studied, comprised predominantly of heavily pretreated RT patients with an extremely poor expected overall survival
- Pirtobrutinib demonstrated promising efficacy, including among patients who received prior RT chemoimmunotherapy and cBTKi
 - Notably, pirtobrutinib demonstrated an ORR of 52% overall and 50% among patients who received prior RT therapy
 - Median OS was 13.1 months, regardless of prior RT therapy
 - DoR was 5.6 months, regardless of prior RT therapy
 - 6 responding patients discontinued in ongoing response to pursue curative intent transplant therapy
- Pirtobrutinib continues to be well-tolerated with low rates of Grade ≥3 AEs and discontinuation due to
 drug-related toxicity
 - Low rates of cBTKi-associated AEs were observed with pirtobrutinib



EPCORE- Richter's Syndrome



Bispecific Antibody to CD3/CD20 Median Prior CLL Rx = 3 (0-7)

	ORR	CRR
Responders, n (%)	6/10 (60)	5/10 (50)

Cytokine Release Syndrome: n = 90% (all grade 1/2)

- First full dose given C1D15
- Median time from first full dose to CRS = 13 hrs
- Median time to resolution = 3 (2-9) days

Neurotoxicity = 0%

Meet The Professors Live: Clinical Investigators Provide Perspectives on Actual Cases of Patients with Lymphoma, Chronic Lymphocytic Leukemia and Multiple Myeloma

A CME Symposium Held in Conjunction with the 2023 ASCO® Annual Meeting

Sunday, June 4, 2023 7:00 PM – 9:30 PM CT

Faculty

John N Allan, MD Shaji K Kumar, MD Ann S LaCasce, MD, MMSc Sagar Lonial, MD Loretta J Nastoupil, MD Susan O'Brien, MD

Moderator Neil Love, MD



Breakfast with the Investigators: Urothelial Bladder Cancer

A CME Symposium Held in Conjunction with the 2023 ASCO[®] Annual Meeting

Monday, June 5, 2023 6:45 AM – 7:45 AM CT Faculty Matthew D Galsky, MD Andrea Necchi, MD Scott T Tagawa, MD, MS

> Moderator Neil Love, MD



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Clinicians in Attendance: The postmeeting survey is now available on the iPads for attendees in the room and on Zoom for those attending virtually. We appreciate your completing this survey before the end of the program.

Thank you for your input.



Thank you for joining us! Your feedback is very important to us.

Please complete the survey currently up on the iPads for attendees in the room and on Zoom for those attending virtually. The survey will remain open up to 5 minutes after the meeting ends.

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