

Sunday, September 22, 2019

Presentation ID	Title
1906	Risk of new malignancies among patients with CLL treated with chemoimmunotherapy - results of a Danish population-based study
	Caspar da Cunha-Bang (Primary Presenter), ¹ Klaus Rostgaard, ² Michael Asger Andersen, ³ Kirsten Grønbaek, ⁴ Henrik Frederiksen, ⁵ Henrik Hjalgrim, ² Carsten Utoft Niemann, ⁶ ¹ Sjællands Universitetshospital Roskilde, Roskilde, Denmark, ² Statens Serum Institut, Copenhagen, Denmark, ³ Rigshospitalet, Copenhagen, Denmark, ⁴ Rigshospitalet, Copenhagen Ø, Denmark, ⁵ Odense University Hospital, Copenhagen, Denmark, ⁶ Rigshospitalet, Copenhagen University Hospital, Copenhagen, Denmark
1908	Impact of comorbidities on outcome of therapy with idelalisib (IDELA), a phosphoinositide-3 kinase-delta inhibitor, in relapsed or refractory chronic lymphocytic leukemia (CLL)
	Max Gordon (Primary Presenter), ¹ Julie Huang, ² Pankaj Bhargava, ³ Alexey Danilov, ¹ ¹ Oregon Health and Science University, Portland, Oregon, United States, ² Gilead, Seattle, WA, United States, ³ Gilead Sciences, Inc., Foster City, California, United States
1909	KTE-X19 in patients with relapsed/refractory chronic lymphocytic leukemia in ZUMA-8, a phase 1/2 multicenter study
	Ian Flinn (Primary Presenter), ¹ Michael Maris, ² William Wierda, ³ Steven Coutre, ⁴ John M. Pagel, ⁵ John C. Byrd, ⁶ Lovely Goyal, ⁷ Krista Goodman, ⁷ Yan Zheng, ⁷ Francesca Milletti, ⁸ Swaminathan Murugappan, ⁷ Jennifer Brown, ⁹ ¹ Sarah Cannon Research Institute, Tennessee Oncology, Nashville, TN, United States, ² Colorado Blood Cancer Institute/ Sarah Cannon Research Institute, Denver, CO, United States, ³ University of Texas MD Anderson, Houston, Texas, United States, ⁴ Stanford University School of Medicine, Stanford, CA, United States, ⁵ Swedish Cancer Institute, Seattle, WA, United States, ⁶ The Ohio State University Comprehensive Cancer Center, Columbus, Ohio, United States, ⁷ Kite, a Gilead Company, Santa Monica, CA, United States, ⁸ Kite, a Gilead Company, Santa Monica, California, United States, ⁹ Dana-Farber Cancer Institute, Boston, Massachusetts, United States
1912	Chronic lymphocytic leukemia-associated paraneoplastic pemphigus: potential cause and therapeutic strategies.
	Lei Cao, ¹ Fei Wang, ² Xinyi Du, ³ Hua-Yuan Zhu, ¹ Li Wang, ¹ WEI XU, ⁴ Lei Fan (Primary Presenter), ¹ JIANYONG LI, ⁵ ¹ the First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital, Nanjing, China, ² Department of hematology, the Third Affiliated Hospital of Soochow University, the first people's hospital of Changzhou., China, ³ Jiangsu Province Hospital, the First Affiliated Hospital of Nanjing Medical University, Nanjing, China, ⁴ Jiangsu Province Hospital, Nanjing, China, ⁵ Jiangsu Provincial People's Hospital, Nanjing, China

1914	Effect of dose modifications on response to duvelisib in patients with relapsed or refractory CLL/SLL in the DUO trial
	Paolo Ghia (Primary Presenter), ¹ Ian Flinn, ² Nicole Lamanna, ³ Marco Montillo, ⁴ Arpad Illes, ⁵ Gabriel Etienne, ⁶ Julio Delgado, ⁷ Bryone Kuss, ⁸ Constantine Tam, ⁹ Fritz Offner, ¹⁰ Francesc Bosch, ¹¹ Matthew Davids, ¹² Ulrich Jäger, ¹³ Florence Cymbalista, ¹⁴ David Weaver, ¹⁵ Stephanie Lustgarten Hagop Youssoufian Stephan Stilgenbauer, ¹ Università Vita-Salute San Raffaele and IRCCS Ospedale San Raffaele, Milan, Italy, ² Sarah Cannon Research Institute, Tennessee Oncology, Nashville, TN, United States, ³ Columbia University Medical Center, New York, New York, United States, ⁴ Niguarda Hospital, Milano, Italy, ⁵ University of Debrecen, Debrecen, Hungary, ⁶ Institut Bergonie, Bordeaux, France, ⁷ Secció d'Hematopatologia,Hospital Clínic, Institut d'Investigacions Biomèdiques Augustí Pi i Sunyer (IDIBAPS), Universitat de Barcelona, Barcelona, Spain, Barcelona, Spain, ⁸ Flinders Medical Centre, Bedford Park, Australia, ⁹ Peter MacCallum Cancer Centre and St. Vincent's Hospital, East Melbourne, Australia, ¹⁰ Universitair Ziekenhuis, Gent, Belgium, ¹¹ Vall d'Hebron Institute of Oncology, Barcelona, Spain, ¹² Dana-Farber Cancer Institute, Boston, Massachusetts, United States, ¹³ Division of Hematology and Hemostaeology, Medical University of Vienna, Vienna, Austria, ¹⁴ Hematology Biology, Hopital Avicenne, AP-HP, Paris 13 University, Bobigny, France, ¹⁵ Verastem Oncology, Needham, MA, United StatesVerastem Oncology, Needham, Massachusetts, United StatesVerastem, Needham, MA, United StatesUniversity of Ulm, Ulm, Germany
1920	An in vitro assay for biomarker discovery and dose prediction applied to ibrutinib plus venetoclax treatment of CLL
	Sigrid S. Skånland (Primary Presenter), ¹ Andrea Cremaschi, ² Henrik Bendiksen, ³ Johanne U. Hermansen, ⁴ Deepak Balaji GovindaRaj, ¹ Ludvig Munthe, ¹ Geir Tjonnfjord, ¹ Kjetil Tasken, ⁴ ¹ Oslo University Hospital, Oslo, Norway, ² Universitetet i Oslo, Oslo, Norway, ³ Oslo University Hospital, Norway, ⁴ University of Oslo, Oslo, Norway
1921	Phase 2 study of acalabrutinib in ibrutinib-intolerant patients with relapsed/refractory chronic lymphocytic leukemia
	Kerry Rogers (Primary Presenter), ¹ Philip Thompson, ² John Allan, ³ Morton Coleman, ⁴ Jeff Sharman, ⁵ Bruce D. Cheson, ⁶ Raquel Izumi, ⁷ Melanie M. Frigault, ⁸ Cheng Quah, ⁷ Rakesh K. Raman, ⁸ Min Hui Wang, ⁷ Thomas J. Kipps, ⁹ ¹ The Ohio State University, Columbus, Ohio, United States, ² The University of Texas M.D. Anderson Cancer Center, HOUSTON, TX, United States, ³ Weill Cornell Medicine, New York, New York, United States, ⁴ Weill Cornell Medicine, NY, NY, United States, ⁵ Willamette Valley Cancer Institute & Research Center, Eugene, OR, United States, ⁶ Georgetown University Hospital, Washington, DC, United States, ⁷ Acerta Pharma, South San Francisco, CA, United States, ⁸ Acerta Pharma, United States, ⁹ UC San Diego, Moores Cancer Center, La Jolla, California, United States

1922	The impacts of zanubrutinib on immune cells in patients with chronic lymphocytic leukemia/small lymphocytic lymphoma
	Yi-Xin Zou (Primary Presenter), ¹ Hua-Yuan Zhu, ² Xiao-Tong Li, ¹ Yi Xia, ² Kou-Rong Miao, ³ Si-Shu Zhao, ³ Yujie Wu, ⁴ Li Wang, ² XU WEI JIANYONG LI, ⁵ ¹ Jiangsu Province Hospital, Nanjing, China, ² the First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital, Nanjing, China, ³ Jiangsu Province Hospital, China, ⁴ the First Affiliated Hospital of Nanjing Medical University, Nanjing, China, ⁵ Jiangsu Provincial People's Hospital, nanjing, China
1924	High-throughput analysis of the B-cell receptor immunoglobulin gene repertoire at diagnosis and relapse offers further evidence of functional selection throughout the natural history of chronic lymphocytic leukemia
	Anna Vardi, ¹ Elisavet Vlachonikola, ² Sofia Mourati, ³ Fotis Psomopoulos, ⁴ Nikos Pantouloufos, ¹ Anastasia Kouvatsi, ⁵ Niki Stavroyianni, ⁶ Achilles Anagnostopoulos, ⁷ KOSTAS STAMATOPOULOS (Primary Presenter), ⁸ Anastasia Chatzidimitriou, ³ ¹ CERTH, Thessaloniki, Greece, ² INAB CERTH, Thessaloniki, Greece, ³ CERTH, Greece, ⁴ Center for Research and Technology Hellas, Thessaloniki, Greece, ⁵ Aristotle University of Thessaloniki, Greece, ⁶ Papanikolaou Hospital Thessaloniki, Thessaloniki, Greece, ⁷ Haematology Dpt-BMT Unit-Gene and Cell Therapy Centre, George Papanicolaou Hospital, THESSALONIKI, Greece, ⁸ Institute of Applied Biosciences, Thessaloniki, Greece
1926	Association of insurance status and marital status with outcomes of patients with chronic lymphocytic leukemia: a population-based study
	Yi Miao (Primary Presenter), ¹ Yi-Xin Zou, ² Changchuan Jiang, ³ Binbin Zheng-Lin, ⁴ Yi Xia, ⁵ Jia-Zhu Wu, ⁵ Jin-Hua Liang, ⁵ Hua-Yuan Zhu, ⁵ Li Wang, ⁵ Lei Fan, ⁵ Wei Xu, ⁵ Jian-Yong Li, ⁵ ¹ the First Affiliated Hospital of Nanjing Medical University, Nanjing, China, ² Jiangsu Province Hospital, Nanjing, China, ³ Icahn School of Medicine at Mount Sinai, new york, New York, United States, ⁴ Mount Sinai St Luke's and Mount Sinai West Hospitals, Icahn School of Medicine at Mount Sinai, New York, NY, United States, ⁵ the First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital, Nanjing, China
1927	Landscape of long non-coding RNA and role of LEF1-AS1 in chronic lymphocytic leukemia
	Xinyi Du, ¹ Rong Huang, ² Lei Cao, ³ Yi Miao, ⁴ Hailing Liu, ⁵ Hua-Yuan Zhu, ³ Li Wang, ³ Wei Xu, ³ Jian-Yong Li, ³ Lei Fan (Primary Presenter), ³ ¹ Jiangsu Province Hospital, the First Affiliated Hospital of Nanjing Medical University, Nanjing, China, ² The First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital, Nanjing, China, ³ the First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital, Nanjing, China, ⁴ the First Affiliated Hospital of Nanjing Medical University, Nanjing, China, ⁵ The First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital, China

1928	Minimal residual disease as prognostic factor after first-line immunochemotherapy in chronic lymphocytic leukemia: real life data from Vilnius University Hospital, Hematology Department
	Regina Pileckyte (Primary Presenter), ¹ Kazimieras Maneikis, ² ¹ VU Hospital, Vilnius, Lithuania, ² Faculty of Medicine, Vilnius University, Vilnius, Lithuania
1929	Survival outcomes following idelalisib interruption in the treatment of relapsed or refractory indolent non-Hodgkin's lymphoma and chronic lymphocytic leukemia
	Shuo Ma (Primary Presenter), ¹ Rebecca Chan, ² Guan Xing, ³ Wei Ye, ⁴ Carrie Brubaker, ⁵ Pankaj Bhargava, ⁶ Bianca Ruzicka, ⁵ Nina Wagner-Johnston, ⁷ ¹ Northwestern University, Chicago, IL, United States, ² Gilead Sciences, Inc., Foster City, CA, United States, ³ Gilead Sciences, Seattle, WA, United States, ⁴ Atara biotherapeutics, Redwood city, CA, United States, ⁵ Gilead Sciences, Foster City, California, United States, ⁶ Gilead Sciences, Inc., Foster City, California, United States, ⁷ Johns Hopkins Univerisy, Baltimore, MD, United States
1930	Exploiting stereotyped HCDR3 sequences for immunotherapy approaches in Chronic Lymphocytic Leukemia: in vitro and in vivo studies
	Alessandra Rovida (Primary Presenter), università vita e salute San Raffaele, Milano, Italy, Italy
1931	Overexpression of TCTP Induces Inferior Prognosis and Fludarabine-Resistance in Patients with Chronic Lymphocytic Leukemia
	Rui-ze Chen (Primary Presenter), ¹ Wei Xu, ² Yi Xia, ² Li Wang, ² Hua-Yuan Zhu, ² Jian-Yong Li, ² Lei Fan, ² Ying-ying Yuan, ³ ¹ The First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital,, Nanjing, China, ² the First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital, Nanjing, China, ³ Nanjing Jiangning Hospital, Nanjing, China
1933	Rational drug combinations targeted towards tumour microenvironment-mediated mTOR/AKT signalling pathways may promote FOXO1 activation leading to reduced CLL survival/proliferation
	Michael Moles (Primary Presenter), ¹ Jodie Hay, ² Mark A. Catherwood, ³ Alison McCaig, ⁴ Alison M. Michie, ² ¹ Institute of Cancer Sciences, University of Glasgow, Glasgow, United Kingdom, ² University of Glasgow, Glasgow, United Kingdom, ³ Belfast City Hospital, Belfast, United Kingdom, ⁴ Queen Elizabeth University Hospital, Glasgow, United Kingdom
1934	The role of mTORC1 during B-cell development and chronic lymphocytic leukaemia (CLL) initiation and progression
	Natasha Malik (Primary Presenter), ¹ Ailsa Holroyd, ² Karen Dunn, ² Jennifer Cassels, ² Jodie Hay, ² Owen Sansom, ³ Alison M. Michie, ² ¹ Miss, GLASGOW, United Kingdom, ² University of Glasgow, Glasgow, United Kingdom, ³ Paul O'Gorman Leukemia Research Centre, University of Glasgow, Glasgow, United

	Kingdom, Beatson Institute of Cancer Research, Glasgow, United Kingdom, Glasgow, United Kingdom
1935	Forty-five month follow-up of real-world results on ibrutinib in relapsed/refractory CLL patients treated in the Swedish compassionate use program
	Maria Winqvist, ¹ Per-Ola Andersson, ² Anna Asklid, ³ Karin Karlsson, ⁴ Claes Karlsson, ¹ Catharina Lewerin, ⁵ Birgitta Lauri, ⁶ Jeanette Lundin, ¹ Mattias Mattsson, ⁷ Anna Bergendahl Sandstedt, ⁸ Richard Rosenquist Brandell, ⁹ Florentin Späth, ¹⁰ Lotta Hansson, ¹¹ Anders Österborg (Primary Presenter), ¹² , ¹ Department of Hematology, Karolinska University Hospital, Stockholm, Sweden, ² South Älsborgs lasarett, Borås, Sweden, ³ Department of Oncology, Karolinska University Hospital, Enskede, Sweden, ⁴ Department of Hematology, Oncology and Radiation Physics, Skane University Hospital, Lund, Sweden, ⁵ Section of Hematology and Coagulation, Sahlgrenska University Hospital, Gothenburg, Sweden, ⁶ Sunderby Hospital, Lulea, Sweden, ⁷ Uppsala University Hospital, Uppsala, Sweden, ⁸ Department of Hematology, Linköping University Hospital, Linköping, Sweden, ⁹ Karolinska Institutet, Stockholm, Sweden, ¹⁰ Department of Radiation Sciences, Oncology, Norrland University Hospital, Umeå, Sweden, ¹¹ Department of Hematology, Karolinska University Hospital, Solna, Sweden, ¹² Karolinska University Hospital Solna, Department of Hematology, Stockholm, Sweden
1936	Acalabrutinib with obinutuzumab in treatment-naïve and relapsed/refractory chronic lymphocytic leukemia: 3-year follow-up
	Jennifer Woyach (Primary Presenter), ¹ Kerry Rogers, ² Seema Bhat, ¹ James Blachly, ² Mojgan Jianfar, ¹ Melanie M. Frigault, ³ Ahmed Hamdy, ⁴ Raquel Izumi, ⁵ Veerendra Munugalavadla, ⁵ Cheng Quah, ⁵ Min Hui Wang, ⁵ John C. Byrd, ¹ , ¹ The Ohio State University Comprehensive Cancer Center, Columbus, Ohio, United States, ² The Ohio State University, Columbus, Ohio, United States, ³ Acerta Pharma, United States, ⁴ Acerta Pharma, S. San Francisco, California, United States, ⁵ Acerta Pharma, South San Francisco, CA, United States
1939	Cytokines released by chronic lymphocytic leukemia cells affect osteoblasto- and osteoclasto-genesis: potential relationship with bone structure alterations.
	Paolo Giannoni (Primary Presenter), ¹ Cecilia Marini, ² Giovanna Cutrona, ³ Serena Matis, ³ Maria Cristina Capra, ⁴ Francesca Puglisi Adalberto Ibatici, ⁵ Micaela Bergamaschi, ⁶ Silvia Bruno, ⁷ Gianmario Sambuceti, ⁸ Manlio Ferrarini, ⁹ Franco Fais, ¹⁰ Daniela de Totero, ³ , ¹ Università di Genova, Genova, Italy, ² CNR Institute of Bioimages and Molecular Physiology, Genova, Italy, ³ IRCCS Ospedale Policlinico San Martino, Genoa, Italy, ⁴ Ospedale Policlinico San Martino-IST, Patologia Molecolare, Genoa, Italy, ⁵ IRCCS AOU San Martino-IST, Genova, Italy, ⁶ Policlinico-San Martino-IST DIPTEO Clinica Ematologica, Genoa, Italy, ⁷ University of Genova - dept Experimental Medicine, Genova, Italy, ⁸ Ospedale Policlinico San Martino-IST, Medicina Nucleare, Genoa, Italy,

	⁹ University of Genoa, DIMES, Genoa, Italy, ¹⁰ University of Genoa, Genova, Italy
1940	Phase I/II triple therapy study of umbralisib and ublituximab (“U2”) combined with checkpoint inhibition in patients with rel/ref CLL and Richter’s transformation
	Anthony Mato (Primary Presenter), ¹ Jakub Svoboda, ² Eline Luning-Prak, ³ Steven Schuster, ² Patricia Tsao, ⁴ Colleen Dorsey, ⁵ Lisa Sarmasti, ⁶ Pamela Becker, ⁷ Danielle Brander, ⁸ Mark Geyer, ⁵ Jae Park, ¹ Isaac Deonarine Jr., ⁵ Cara King, ² Beth Morigan, ⁷ Jill Elwell, ⁹ Kaitlin Kennard, ¹⁰ Lindsey Roeker, ⁵ Andrew Zelenetz, ¹¹ Michelle Purdom, ¹² Dana Paskalis, ¹³ Peter Sportelli, ¹⁴ Hari Miskin, ¹⁵ Michael Weiss Mazyar Shadman, ¹ Memorial Sloan Kettering Cancer Center, New York, New York, United States, ² Abramson Cancer Center, University of Pennsylvania, Philadelphia, PA, United States, ³ University of Pennsylvania, Department of Pathology and Laboratory Medicine, United States, ⁴ University of Pennsylvania, Department of Pathology and Laboratory Medicine, Philadelphia, PA, United States, ⁵ Memorial Sloan-Kettering Cancer Center, New York, NY, United States, ⁶ Memorial Sloan-Kettering Cancer Center, United States, ⁷ Fred Hutchinson Cancer Research Center, United States, ⁸ Duke University, Durham, North Carolina, United States, ⁹ Fred Hutchinson Cancer Research Center, Seattle, Washington, United States, ¹⁰ University of Pennsylvania, Philadelphia, Pennsylvania, United States, ¹¹ MSKCC, New York, New York, United States, ¹² TG Therapeutics, Inc., Pearland, TX, United States, ¹³ TG Therapeutics, East Greenwich, RI, United States, ¹⁴ TG Therapeutics, New York, NY, United States, ¹⁵ TG Therapeutics, Inc., New York, New York, United States TG Therapeutics, Inc., United States Fred Hutchinson Cancer Research Center, Seattle, WA, United States
1941	Pneumocystis jirovecii pneumonia and invasive fungal infection incidence and institutional prophylaxis practices in CLL patients treated with BTK inhibitors
	Christine Ryan (Primary Presenter), ¹ Matthew Cheng, ¹ Nicolas Issa, ¹ Jennifer Brown, ² Matthew Davids, ² ¹ Brigham and Women's Hospital, Boston, MA, United States, ² Dana-Farber Cancer Institute, Boston, Massachusetts, United States
1942	Functional alterations of the classical complement pathway in chronic lymphocytic leukemia patients
	Regina Michelis (Primary Presenter), ¹ Tamar Tadmor, ² Masad Barhoum, ¹ Lev Shvidel, ³ Ariel Aviv, ⁴ Andrei Braester, ¹ ¹ Galilee Medical Center, Nahariya, Israel, ² Bnai Zion Medical Center, Haifa, Israel, ³ Kaplan Medical Center, Rehovot, Israel, ⁴ Emek Medical Center, Afula, Israel
1943	A Phase 2 Study to Assess the Safety and Efficacy of Umbralisib in Patients with Chronic Lymphocytic Leukemia (CLL) who are Intolerant to Prior BTK or PI3K Delta Inhibitor Therapy

	<p>Anthony Mato,¹ Steven Schuster,² Nicole Lamanna,³ John Pagel,⁴ Ian Flinn,⁵ Jacqueline Barrientos,⁶ James Reeves,⁷ Bruce D. Cheson,⁸ Paul Barr,⁹ Suman Kambhampati,¹⁰ Erick Lansigan,¹¹ Jeffrey Pu,¹² Alan Skarbnik,¹³ Gustavo Fonseca,¹⁴ Jakub Svoboda,² Colleen Dorsey,¹⁵ Nicole LaRatta Hanna Weissbrot Eline Luning-Prak Patricia Tsao Andrea Sitlinger Dana Paskalis Peter Sportelli Hari Miskin Michael Weiss Danielle Brander (Primary Presenter), ¹Memorial Sloan Kettering Cancer Center, New York, New York, United States, ²Abramson Cancer Center, University of Pennsylvania, Philadelphia, PA, United States, ³Columbia University Medical Center, New York, New York, United States, ⁴Swedish Cancer Institute Hematologic Malignancies Program, Seattle, Washington, United States, ⁵Sarah Cannon Research Institute, Tennessee Oncology, Nashville, TN, United States, ⁶Zucker School of Medicine at Hofstra Northwell, New Hyde Park, New York, United States, ⁷FCS-105298, Fort Myers, FL, United States, ⁸Georgetown University Hospital, Washington, DC, United States, ⁹University of Rochester, Rochester, NY, United States, ¹⁰Research Medical Center / Sarah Cannon Research Institute, United States, ¹¹Dartmouth-Hitchcock Medical Center, Lebanon, New Hampshire, United States, ¹²SUNY Upstate Medical University, Syracuse, New York, United States, ¹³Novant Health, Charlotte, NC, United States, ¹⁴Florida Cancer Specialists North / Sarah Cannon Research Institute, United States, ¹⁵Memorial Sloan-Kettering Cancer Center, New York, NY, United States University of Pennsylvania, Abramson Cancer Center, Philadelphia, PA, United States Columbia University Medical Center, New York, NY, United States University of Pennsylvania, Department of Pathology and Laboratory Medicine, United States University of Pennsylvania, Department of Pathology and Laboratory Medicine, Philadelphia, PA, United States Duke Medical Center, Durham, NC, United States TG Therapeutics, East Greenwich, RI, United States TG Therapeutics, New York, NY, United States TG Therapeutics, Inc., New York, New York, United States TG Therapeutics, Inc., United States Duke University, Durham, North Carolina, United States</p>
1944	<p>Genomic landscape of Chinese patients with chronic lymphocytic leukemia by whole-exome sequencing</p>
	<p>Yi Miao (Primary Presenter),¹ Yi Xia,² Chun Qiao,¹ Hua-Yuan Zhu,² Jia-Zhu Wu,² Hui Jin,³ Jian-Xin Fu,⁴ Li Wang,² Lei Fan,² Wei Xu,² JIANYONG LI,⁵ ¹the First Affiliated Hospital of Nanjing Medical University, Nanjing, China, ²the First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital, Nanjing, China, ³The First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital, Nanjing, China, ⁴The first affiliated hospital of Nanjing medical university, China, ⁵Jiangsu Provincial People's Hospital, nanjing, China</p>
1946	<p>Value of bendamustine debulking ahead of combined targeted treatment: meta-analysis of three phase II studies evaluating different combinations of a targeted agent with a CD20-antibody in patients with treatment-naïve and relapsed/refractory CLL</p>

	<p>Paula Cramer (Primary Presenter),¹ Julia von Tresckow,² Sandra Robrecht,³ Jasmin Bahlo,³ Petra Langerbeins,⁴ Moritz Fürstenau,⁵ Othman Al-Sawaf,³ Anna-Maria Fink,³ Kirsten Fischer,⁶ Eugen Tausch,⁷ Karl-Anton Kreuzer,⁸ Matthias Rittgen,⁹ Sebastian Boettcher,¹⁰ Michael Kneba,¹¹ Clemens Martin Wendtner,¹² Stephan Stilgenbauer,⁷ Barbara Eichhorst,³ Michael Hallek,¹³, ¹University of Cologne, Faculty of Medicine and University Hospital of Cologne, Department of Internal Medicine and German CLL Study Group, Cologne, Germany, ²University Cologne, Cologne, Germany, ³University Hospital of Cologne, Cologne, Germany, ⁴University Hospital Cologne, Cologne, Germany, ⁵University of Cologne, Department I of Internal Medicine, Center for Integrated Oncology Aachen Bonn Cologne Duesseldorf, German CLL Study Group, University Hospital of Cologne, Cologne, Germany, ⁶University Hospital of Cologne - German CLL Study Group, Cologne, Germany, ⁷University of Ulm, Ulm, Germany, ⁸University at Cologne, Cologne, Germany, ⁹University of Schleswig-Holstein, Campus Kiel, Kiel, Germany, ¹⁰University Hospital of Rostock, Rostock, Germany, ¹¹University Hospital of Kiel, Kiel, Germany, ¹²Munich Clinic Schwabing, Academic Teaching Hospital of University of Munich, Munich, Germany, ¹³University of Cologne, Faculty of Medicine and University Hospital of Cologne, Department 1 of Internal Medicine and German CLL Study Group, Cologne, Germany</p>
1949	<p>A feedback circuit of miR-34a/MDM4/p53 regulates apoptosis in chronic lymphocytic leukemia cells.</p>
	<p>Lei Cao,¹ Yun Liu,² Jingbo Lu,³ Yi Miao,³ Xinyi Du,⁴ Rong Wang,³ Hui Yang,³ WEI XU,⁵ JIANYONG LI,⁶ Lei Fan (Primary Presenter),¹, ¹the First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital, Nanjing, China, ²Nanjing Drum Tower Hospital Affiliated to Nanjing University Medical School, nanjing, China, ³the First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital, nanjing, China, ⁴Jiangsu Province Hospital, the First Affiliated Hospital of Nanjing Medical University, Nanjing, China, ⁵Jiangsu Province Hospital, Nanjing, China, ⁶Jiangsu Provincial People's Hospital, nanjing, China</p>
1950	<p>A complex karyotype at chronic lymphocytic leukemia diagnosis predicts a very high risk of developing richter syndrome</p>
	<p>Livio Trentin (Primary Presenter),¹ ANDREA VISENTIN,² Gian Matteo Rigolin,³ Francesca Romana Mauro,⁴ Laura Bonaldi,⁵ Annalisa Martines,⁶ Federica Frezzato,¹ Silvia Imbergamo,⁷ Edoardo Scomazzon,⁷ Stefano Pravato,⁸ Maria Antonella Bardi,⁹ Maurizio Cavallari,¹⁰ Maurizio Nanni,¹¹ Monica Facco,⁷ Robin Foà,¹² Antonio Cuneo,³ Gianpietro Semenzato,⁷, ¹University of Padova, Padova, Italy, ²University of Padua, PADOVA, Italy, ³Azienda Ospedaliero Universitaria Arcispedale S. Anna, Ferrara, Italy, ⁴Università Sapienza of Rome, Rome, Italy, ⁵Immunology and Molecular Oncology Unit, Veneto Institute of Oncology IOV-IRCSS, PADOVA, Italy, ⁶Immunology and Molecular Oncology Unit, Veneto Institute of Oncology IOV-IRCSS, Padua, Italy, ⁷University of Padua, Padua, Italy, ⁸Hematology and Clinical Immunology Unit, Department of Medicine, University of Padua, Italy, ⁹Hematology section, Department of</p>

	<p>Medical Sciences, Azienda Ospedaliera-Universitaria, Arcispedale S. Anna, University of Ferrara, Italy, ¹⁰Hematology section, Department of Medical Sciences, Azienda Ospedaliera-Universitaria, Arcispedale S. Anna, University of Ferrara, Ferrara, Italy, ¹¹Hematology, Department of Cellular Biotechnologies and Hematology, "Sapienza" University, Italy, ¹²Università La Sapienza, Roma, Italy, Roma, Italy</p>
1951	<p>IGHV gene rearrangements and stereotyped receptors in chronic lymphocytic leukemia from a South American multicenter study.</p>
	<p>Carmen Graciela Stanganelli (Primary Presenter),¹ Davi Coe Torres,² Claudia Ortega,³ Natalia Sotelo,³ María Marquez Priscilla Segges,⁴ María Tereza Muniz,⁵ Ricardo Bigni,⁶ Paulo Campregher,⁷ Adriano Sabino,⁸ Caio Gomes,⁹ María Lourdes Ferrari de Chauffaille,¹⁰ Celso Arrais-Rodrigues,¹¹ Mihoko Yamamoto,¹² Eliana Abdelhay,¹³ Juana Cabrera,¹⁴ Pierre-Antoine Deglesne,¹⁵ José Luis López Camila Galvano Andrea Krzywinski Raimundo Bezares Cecilia Lang Lorena Zanella Evangelina Agriello Horacio Fernández Grecco Maria Cabrejo Raul Gabus Guillermo Dighiero Pablo Opezzo Rocío Hassan,² Irma Slavutsky, ¹Academia Nacional de Medicina, Buenos Aires, Argentina, ²Laboratório de Oncovirologia, Centro de Transplante de Medula Óssea – CEMO, Instituto Nacional de Câncer – INCA, Rio de Janeiro, Brazil, ³Institut Pasteur de Montevideo, Montevideo, Uruguay, ⁴2. Laboratório de Oncovirologia, Centro de Transplante de Medula Óssea – CEMO, Instituto Nacional de Câncer – INCA, Rio de Janeiro, Brazil, ⁵5. Laboratório de Biologia Molecular, Centro de Oncohematologia Pediátrica, Hospital Universitário Oswaldo Cruz, Instituto de Ciências Biológicas, Universidade de Pernambuco., Recife, Brazil, ⁶6. Serviço de Hematologia, Instituto Nacional de Câncer – INCA, Niteroi, Brazil, ⁷7. Departamentos de Hematologia e Patologia Clínica, e Centro de Pesquisa Experimental, Hospital Israelita Albert Einstein; Departamento de Hematologia, Universidade Estadual de Campinas (Hemocentro-Unicamp)., São Paulo, Brazil, ⁸8. Departamento de Análises Clínicas e Toxicológicas, Faculdade de Farmácia, Universidade Federal de Minas Gerais (UFMG), Belo Horizonte, Brazil, ⁹Universidade Federal de São Paulo (EPM-UNIFESP), São Paulo, Brazil, ¹⁰10. División de Hematología, Universidade Federal de São Paulo (EPM-UNIFESP)., São Paulo, Brazil, ¹¹Universidade Federal de Sao Paulo, São Paulo, Brazil, ¹²10. Universidade Federal de São Paulo, São Paulo, Brazil, ¹³Laboratório de Célula Tronco, Centro de Transplante de Medula Óssea – CEMO, Instituto Nacional de Câncer – INCA., Rio de Janeiro, Brazil, ¹⁴1. División Patología Molecular, Instituto de Investigaciones Hematológicas, Academia Nacional de Medicina., Buenos Aires, Argentina, ¹⁵4. Centro de Medicina Experimental, Instituto Venezolano de Investigaciones Científicas., Caracas, Venezuela ¹². Banco Municipal de Sangre, Caracas, Venezuela ¹³. Instituto de Medicina Experimental, CONICET-Academia Nacional de Medicina., Buenos Aires, Argentina ¹³. Laboratorio de Genética de Neoplasias Linfoides, Instituto de Medicina Experimental, CONICET-Academia Nacional de Medicina., Buenos Aires, Argentina ¹⁴. Hospital General de Agudos Dr. Teodoro Alvarez, CABA, Argentina ¹⁵. Laboratorio LEB,</p>

	<p>Bahía Blanca, Argentina Laboratorio de Especialidades Bioquímicas (LEB), Bahía Blanca, Argentina Laboratorio de Especialidades Bioquímicas (LEB), bahía blanca, Argentina Sanatorio Dr. Julio Méndez, Buenos Aires, Argentina NONE, Ciudad Autónoma de Buenos Aires, Argentina Hospital Maciel, ASSE, San Diego, California, United States Institute Pasteur of Montevideo, Paris, France Institute Pasteur de Montevideo, Research Laboratory on Chronic Lymphocytic Leukemia, Montevideo, Uruguay IMEX-CONICET-ANM, CABA, Argentina</p>
1952	<p>Treatment and prognostic testing patterns in patients with chronic lymphocytic leukemia: updates from the informCLL™ real-world registry</p>
	<p>Nilanjan Ghosh (Primary Presenter),¹ Anthony Mato,² Jacqueline Barrientos,³ Danielle Brander,⁴ John Pagel,⁵ Meghan Gutierrez,⁶ Karen Kadish,⁷ Brian Tomlinson,⁸ Sandhya Upasani,⁹ Murali Sundaram,¹⁰ Jennifer Han,¹⁰ Carlos Amaya-Chanaga,¹¹ Reethi Iyengar,¹² Jeff Sharman,¹³ ¹Levine Cancer Institute, Charlotte, North Carolina, United States, ²Memorial Sloan Kettering Cancer Center, New York, New York, United States, ³Zucker School of Medicine at Hofstra Northwell, New Hyde Park, New York, United States, ⁴Duke University, Durham, North Carolina, United States, ⁵Swedish Cancer Institute Hematologic Malignancies Program, Seattle, Washington, United States, ⁶Lymphoma Research Foundation, NEW YORK, NY, United States, ⁷Tufts Medical Center, Boston, MA, United States, ⁸CancerCare, New York, NY, United States, ⁹Pharmacyclics LLC, an AbbVie Company, Sunnyvale, CA, United States, ¹⁰Janssen Scientific Affairs, LLC, Horsham, PA, United States, ¹¹Pharmacyclics, LLC - an AbbVie Company, Sunnyvale, CA, United States, ¹²Pharmacyclics, Milpitas, CA, United States, ¹³Willamette Valley Cancer Institute & Research Center, Eugene, OR, United States</p>
1953	<p>Treatment sequencing and outcomes in patients with chronic lymphocytic leukemia: the informCLL™ real-world registry</p>
	<p>Anthony Mato (Primary Presenter),¹ Nilanjan Ghosh,² Jacqueline Barrientos,³ Danielle Brander,⁴ John Pagel,⁵ Meghan Gutierrez,⁶ Karen Kadish,⁷ Brian Tomlinson,⁸ David Ipe,⁹ Murali Sundaram,¹⁰ Jennifer Han,¹⁰ Carlos Amaya-Chanaga,¹¹ Reethi Iyengar,¹² Jeff Sharman,¹³ ¹Memorial Sloan Kettering Cancer Center, New York, New York, United States, ²Levine Cancer Institute, Charlotte, North Carolina, United States, ³Zucker School of Medicine at Hofstra Northwell, New Hyde Park, New York, United States, ⁴Duke University, Durham, North Carolina, United States, ⁵Swedish Cancer Institute Hematologic Malignancies Program, Seattle, Washington, United States, ⁶Lymphoma Research Foundation, NEW YORK, NY, United States, ⁷Tufts Medical Center, Boston, MA, United States, ⁸CancerCare, New York, NY, United States, ⁹Pharmacyclics LLC, an AbbVie Company, Sunnyvale, California, United States, ¹⁰Janssen Scientific Affairs, LLC, Horsham, PA, United States, ¹¹Pharmacyclics, LLC - an AbbVie Company, Sunnyvale, CA, United States, ¹²Pharmacyclics, Milpitas, CA, United States, ¹³Willamette Valley Cancer Institute & Research Center, Eugene, OR, United States</p>

1954	Calcitriol/vitamin D receptor signaling analysis in chronic lymphocytic leukemia
	Marina Gerousi (Primary Presenter), ¹ Konstantia Kotta, ¹ Niki Stavroyianni, ² Achilles Anagnostopoulos, ³ Ioannis Kotsianidis, ⁴ Stavroula Ntoufa, ¹ KOSTAS STAMATOPOULOS, ⁵ , ¹ Institute of Applied Biosciences/Centre for Research and Technology Hellas (INAB/CERTH), Thessaloniki, Greece, ² Papanikolaou Hospital Thessaloniki, Thessaloniki, Greece, ³ Haematology Dpt-BMT Unit-Gene and Cell Therapy Centre, George Papanicolaou Hospital, THESSALONIKI, Greece, ⁴ Medical Department, Democritus University of Thrace, Alexandroupolis, Greece, ⁵ Institute of Applied Biosciences, Thessaloniki, Greece
1955	Analysis of stem cell factor expression and regulation through the microenvironment in chronic lymphocytic leukemia
	George Gavriilidis (Primary Presenter), ¹ Stavroula Ntoufa, ¹ Nikos Papakonstantinou Konstantia Kotta, ¹ Elisavet Chartomatsidou, ² Theodoros Moysiadis, ³ Niki Stavroyianni, ⁴ Achilles Anagnostopoulos, ⁵ Helen Papadaki, ⁶ Asterios Tsiftoglou, ⁷ KOSTAS STAMATOPOULOS, ⁸ , ¹ Institute of Applied Biosciences/Centre for Research and Technology Hellas (INAB/CERTH), Thessaloniki, Greece, ² IRCCS San Raffaele Scientific Institute, Milan, Italy, ³ INAB, CERTH, Greece, ⁴ Papanikolaou Hospital Thessaloniki, Thessaloniki, Greece, ⁵ Haematology Dpt-BMT Unit-Gene and Cell Therapy Centre, George Papanicolaou Hospital, THESSALONIKI, Greece, ⁶ University Hospital of Heraklion, Heraklion, Greece, ⁷ Laboratory of Pharmacology, Department of Pharmaceutical Sciences Aristotle University of Thessaloniki, Thessaloniki, Greece, ⁸ Institute of Applied Biosciences, Thessaloniki, Greece
1957	Deciphering the CXCL9-CXCL10-CXCL11/CXCR3 axis in MBL and CLL: a new target for immune activation?
	Gonzalo Blanco (Primary Presenter), ¹ Anna Puiggros, ² Barbara Sherry, ³ Lara Nonell, ⁴ Xavier Calvo, ⁵ Eulàlia Puigdecenet, ⁶ Pui Yan (Paulina) Chiu, ³ Yasmine Kieso - Chelico, ⁷ Gerardo Ferrer, ³ Magdalena Arnal, ⁶ María Rodríguez-Rivera, ⁸ Eva Gimeno Eugènia Abella, ⁵ Kanti Rai, ⁹ Pablo Abrisqueta Costa, ¹⁰ Francesc Bosch, ¹¹ Ana Ferrer, ⁵ Nicholas Chiorazzi, ³ Blanca Espinet, ¹² , ¹ Institut Hospital del Mar d'Investigacions Mèdiques (IMIM) - Hospital del Mar (Barcelona), Barcelona, Spain, ² Fundació IMIM-Hospital del Mar, Barcelona, Spain, ³ The Feinstein Institute for Medical Research, Manhasset, New York, United States, ⁴ IMIM, Barcelona, Spain, ⁵ Hospital del Mar, Barcelona, Spain, ⁶ MARGenomics, IMIM (Barcelona), Barcelona, Spain, ⁷ The Feinstein Institute for Medical Research, Northwell Health System, Manhasset, New York, United States, ⁸ FUNDACIO IMIM - Hospital del Mar, Barcelona, Spain, ⁹ The Feinstein Institute for Medical Research/Hofstra Northwell School of Medicine/North Shore University Hospital and Long Island Jewish Medical Center, Northwell Health, New Hyde Park, New York, United States, ¹⁰ Vall d'Hebron Institute of Oncology, Madrid, Spain, ¹¹ Vall d'Hebron Institute of Oncology, Barcelona,

	Spain, ¹² Institut Hospital del Mar d'Investigacions Mèdiques (IMIM)-Hospital del Mar, Barcelona, Spain
1958	The BET inhibitor GS-5829 targets chronic lymphocytic leukemia cells and their supportive microenvironment
	Kim Ekaterina, ¹ Elisa ten Hacken, ² Mariela Sivina, ³ Astrid Clarke, ⁴ Philip Thompson, ⁵ Nitin Jain, ⁶ Alessandra Ferrajoli, ¹ Zeev Estrov, ⁶ Michael Keating, ⁷ William Wierda, ⁸ Kapil Bhalla, ⁹ Jan A. Burger (Primary Presenter), ¹⁰ , ¹ The University of Texas MD Anderson Cancer Center, Houston, TX, United States, ² Dana-Farber Cancer Institute, Boston, Massachusetts, United States, ³ MD Anderson Cancer Center, Houston, TX, United States, ⁴ Gilead Sciences, Inc., Seattle, WA, United States, ⁵ The University of Texas M.D. Anderson Cancer Center, HOUSTON, TX, United States, ⁶ The University of Texas MD Anderson Cancer Center, Houston, Texas, United States, ⁷ University of Texas, MD Anderson Cancer Center, Houston, TX, United States, ⁸ University of Texas MD Anderson, Houston, Texas, United States, ⁹ MD Anderson Cancer Center, United States, ¹⁰ University of Texas, MD Anderson Cancer Center, Houston, Texas, United States
1959	Treatment emergent adverse events vary with different PI3K inhibitors
	Farrukh Awan (Primary Presenter), ¹ Rebecca Chan, ² Lin Gu, ³ Guan Xing, ⁴ Pankaj Bhargava, ⁵ Bianca Ruzicka, ⁶ Martin Dreyling, ⁷ Pier Luigi Zinzani, ⁸ Ajay Gopal, ⁹ , ¹ The Ohio State University, Columbus, Ohio, United States, ² Gilead Sciences, Inc., Foster City, CA, United States, ³ Gilead Sciences, United States, ⁴ Gilead Sciences, Seattle, WA, United States, ⁵ Gilead Sciences, Inc., Foster City, California, United States, ⁶ Gilead Sciences, Foster City, California, United States, ⁷ University Hospital of the Ludwig-Maximilians-University, Munich, Germany, ⁸ University of Bologna, Italy, ⁹ University of Washington, Seattle, WA, United States
1960	Monoclonal antibody therapy in CLL is governed by antibody-dependent cellular phagocytosis
	Charles Chu, ¹ Karl R. VanDerMeid, ¹ Jonathan Pinney, ² Raquel Izumi, ³ Veerendra Munugalavadla, ³ Michael R. Elliott, ¹ Clive S. Zent (Primary Presenter), ¹ , ¹ University of Rochester Medical Center, Rochester, NY, United States, ² University of Rochester, Rochester, NY, United States, ³ Acerta Pharma, South San Francisco, CA, United States
1961	Transcriptional modulation by idelalisib synergizes with bendamustine in chronic lymphocytic leukemia
	Sara Kost (Primary Presenter), ¹ Ali Saleh Edgard Mejia, ² Marina Mostafizar, ³ Eric Bouchard, ⁴ Versha Banerji, ⁵ Aaron Marshall, ² Spencer Gibson, ⁶ James Johnston, ⁷ Sachin Katyal, ⁸ , ¹ Cancercare Manitoba, Winnipeg, Manitoba, Canada, ² University of Manitoba, Winnipeg, MB, Canada, ³ University of Manitoba, Canada, ⁴ Simon Fraser University, Burnaby, British Columbia, Canada, ⁵ Research Institute of Oncology and Hematology, CancerCare Manitoba, Winnipeg, Manitoba, Canada, ⁶ Research Institute in Oncology and

	Hematology, Winnipeg, Manitoba, Canada, ⁷ University of Manitoba/CancerCare Manitoba, Winnipeg, MB, Canada, ⁸ University of Manitoba/CancerCare Manitoba, Winnipeg, Manitoba, Canada
1963	Impact of long-term ibrutinib treatment on circulating immune cells in patients with chronic lymphocytic leukemia
	Isabelle Solman (Primary Presenter), ¹ Lisa Blum, ² Jan A. Burger, ³ Thomas J. Kipps, ⁴ James Dean, ⁵ Danelle James, ⁶ Ann Mongan, ⁷ ¹ Pharmacyclics LLC, an AbbVie Company, Sunnyvale, CA, United States, ² Pharmacyclics, LLC, an AbbVie Company, Sunnyvale, CA, United States, ³ University of Texas, MD Anderson Cancer Center, Houston, Texas, United States, ⁴ UC San Diego, Moores Cancer Center, La Jolla, California, United States, ⁵ Pharmacyclics LLC, an AbbVie Company, Seattle, Washington, United States, ⁶ Pharmacyclics LLC, an AbbVie Company, Sunnyvale, California, United States, ⁷ AbbVie, Sunnyvale, CA, United States
1964	Long-term outcome and responses to second-line therapies of 111 patients with chronic lymphocytic leukemia (CLL) treated with front-line FCR: real-life experience
	Ana Carla Oliveira (Primary Presenter), ¹ Jose Maria Roncero Vidal, ² Christelle Ferra Coll, ³ Janilson Do Nascimento, ⁴ Marta Rodriguez, ⁵ Eva Domingo-Domenech, ⁶ Santiago Mercadal, ⁶ Maite Encuentra, ⁷ David Gallardo, ⁸ Jose-Maria Ribera Ribera, ⁹ Josep Sarrá, ⁴ Anna Sureda, ⁶ Eva Gonzalez Barca, ¹⁰ ¹ ICO - Hospital Duran i Reynals, IDIBELL, Grupo de Referentes de LLC del ICO, Hospitalet - Barcelona, Spain, ² ICO GIRONA, Madrid, Spain, ³ ICO - Hospital German Trias i Pujol, Badalona, Spain, ⁴ ICO – Hospital Joan XXIII, Tarragona, Spain, ⁵ ICO – Hospital Verge de la Cinta, Tortosa, Spain, ⁶ ICO – Hospital Duran i Reynals, IDIBELL, Hospitalet, Spain, ⁷ Unidad de Investigación Clínica, ICO – Hospital Duran i Reynals, Hospitalet, Spain, ⁸ ICO – Hospital Josep Trueta, Girona, Spain, ⁹ ICO-Hospital Germans Trias i Pujol, Badalona, Spain, ¹⁰ ICO - Hospital Duran i Reynals, IDIBELL, Barcelona, Spain
1965	Disruption of STAT3 signaling in CLL B cells through HDAC6 inhibition reverses CLL T-cell exhaustion
	Kamira Maharaj (Primary Presenter), ¹ John Powers, ² Alex Achille, ² Adrian Nieto Eva Sahakian, ² Javier Pinilla-Ibarz, ³ ¹ H. Lee Moffitt Cancer Center & Research Institute, Tampa, FL, United States, ² Moffitt Cancer Center, Tampa, Florida, United States, ³ H. Lee Moffitt Cancer Center, Tampa, Florida, United States
1966	Unmaintained remission following discontinuation of kinase inhibitor treatment in chronic lymphocytic leukemia in an observational cohort
	Alexander Egle (Primary Presenter), ¹ Ulrich Jäger, ² Cathrin Skrabs, ³ Jan Dürig, ⁴ Thomas Nösslinger, ⁵ David Wanner, ⁶ Michael Steurer, ⁶ Ingo Ringshausen, ⁷ Thomas Melhardt, ⁸ Richard Greil, ⁹ YSEBAERT Loic, ¹⁰ ¹ Paracelsus Medical University Salzburg/3rd Medical University Department, Salzburg, Austria, ² Division of Hematology and Hemostaeology, Medical University of Vienna,

	Vienna, Austria, ³ Dept. Internal Medicine I, Medical University Vienna, Vienna, Austria, Austria, ⁴ Dept. Hematology, University Hospital Essen, Essen, Germany, ⁵ Hanusch-Krankenhaus, Vienna, Austria, ⁶ Dept. Internal Medicine V, Medical University Innsbruck, Innsbruck, Austria, Austria, ⁷ University of Cambridge, Cambridge, United Kingdom, ⁸ Paracelsus Medical University/3rd Medical University Department, Salzburg, Austria, ⁹ Laboratory for Immunological and Molecular Cancer Research (LIMCR), Salzburg, Austria, ¹⁰ IUCT Oncopole Toulouse, Toulouse, France
1967	The landscape of drug perturbation effects in leukemia and lymphoma
	Thorsten Zenz (Primary Presenter), ¹ Sebastian Scheinost, ² Junyan Lu, ³ Lena Wagner, ² Jennifer Hüllein, ⁴ Tatjana Walther, ² Leopold Sellner, ⁵ Alexandre Theocharides, ⁶ Markus Manz, ⁷ Beat Bornhäuser, ⁸ Jean-Pierre Bourquin, ⁸ Florence Nguyen-Khac, ⁹ Marta Crespo Maull, ¹⁰ Francesc Bosch Sascha Dietrich, ² Wolfgang Huber, ¹¹ ¹ University Hospital Zürich, Zurich, Switzerland, ² German Cancer Research Center (DKFZ), Heidelberg, Germany, ³ European Molecular Biology Laboratory, Heidelberg, Germany, ⁴ DKFZ, Heidelberg, Germany, ⁵ University Hospital Heidelberg, Heidelberg, Germany, ⁶ University Hospital Zürich, Zürich, Switzerland, ⁷ University Hospital Zürich, Switzerland, ⁸ Childrens Hospital Zürich, Switzerland, ⁹ CHU Pitié-Salpêtrière, Paris, France, ¹⁰ Vall d'hebron Institute of Oncology, Barcelona, Spain, ¹¹ EMBL, Heidelberg, Germany
1968	B-cell specific IRF4 deletion accelerates chronic lymphocytic leukemia development by enhancing tumor immune evasion
	Daniela Asslaber, ¹ Yuan Qi, ² Nicole Maeding, ³ Ursula Denk, ⁴ Jan Philip Höpner, ³ Tanja Hartmann, ⁵ Nadja Zaborsky, ³ Richard Greil, ⁶ Alexander Egle (Primary Presenter), ⁷ ¹ Paracelsus Medical University Salzburg, Laboratory for Immunological and Molecular Cancer Research, Salzburg, Austria, ² Paracelsus Medical University Salzburg, Laboratory for immunological and Molecular Cancer Research, Austria, ³ Paracelsus Medical University Salzburg, Laboratory for Immunological and Molecular Cancer Research, Salzburg, Austria, ⁴ Paracelsus Medical University Salzburg, Laboratory for Immunological and Molecular Cancer Research, Aruba, ⁵ Laboratory for Immunological and Molecular Cancer Research (LIMCR), Paracelsus Medical University Salzburg, Salzburg, Austria, ⁶ Laboratory for Immunological and Molecular Cancer Research (LIMCR), Salzburg, Austria, ⁷ Paracelsus Medical University Salzburg/3rd Medical University Department, Salzburg, Austria
1969	Richter's transformation in patients with chronic lymphocytic leukemia: a cohort study about risk factors
	Mufide Okay, ¹ Gursel Gunes, ² Umit Yavuz Malkan, ² Tehmez Heziyev, ¹ Hakan Goker, ¹ Ibrahim Celalettin Haznedaroglu, ² Osman Özcebe, ² Nilgun Sayinalp (Primary Presenter), ² ¹ Hacettepe University School of Medicine, Ankara, Turkey, ² Hacettepe University, Ankara, Turkey
1971	PTBP1 regulates alternative splicing of apoptotic protein: implications in CLL and ibrutinib resistance

	Hua-Yuan Zhu (Primary Presenter), ¹ Xiao-Tong Li, ² Xinqi Zheng, ³ Jue-jin Wang, ⁴ Hanning Tang, ⁵ Yi Xia, ¹ Li Wang, ¹ Jin-Hua Liang, ¹ Wei Xu, ¹ JIANYONG LI, ⁶ ¹ the First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital, Nanjing, China, ² Jiangsu Province Hospital, Nanjing, China, ³ Department of Hematology, Jiangsu Province Hospital, Nanjing, China, Nanjing, China, ⁴ Key Laboratory of Cardiovascular Disease and Molecular Intervention, Department of Physiology, Nanjing Medical University, China, ⁵ Department of Hematology, Jiangsu Province Hospital, Nanjing, China, China, ⁶ Jiangsu Provincial People's Hospital, Nanjing, China
1973	Analysis of BIRC3 disruption in patients with chronic lymphocytic leukemia: association with complex karyotypes and TP53 deletion.
	Camila Galvano, ¹ Andrea Krzywinski, ² Carmen Graciela Stanganelli, ³ María Silvana Cugliari, ⁴ Giselda De Stefano, ⁵ Luciana Melillo, ⁵ Marcela Miodosky, ⁵ Diego Fernandez, ⁵ Romina Penalba, ⁶ Marta Zerga, ⁷ Irma Slavutsky (Primary Presenter), ⁸ ¹ Instituto de Medicina Experimental, CONICET-Academia Nacional de Medicina., Buenos Aires, Argentina, ² 13. Laboratorio de Genética de Neoplasias Linfoides, Instituto de Medicina Experimental, CONICET-Academia Nacional de Medicina., Buenos Aires, Argentina, ³ Academia Nacional de Medicina, Buenos Aires, Argentina, ⁴ Angel H. Roffo Institute of Oncology, CABA, Argentina, ⁵ Departamento de Hematología, Instituto Angel Roffo, Argentina, ⁶ Departamento de Hematología, Instituto Angel Roffo, ciudad autónoma de Buenos Aires, Argentina, ⁷ Angel H. Roffo Institute of Oncology, Buenos Aires, Argentina, ⁸ IMEX-CONICET-ANM, CABA, Argentina
1974	Hypertension in ibrutinib treated patients with chronic lymphocytic leukemia (CLL)
	Lindsey Roeker (Primary Presenter), ¹ Maryam Yazdy, ² Lisa Gashonia, ³ Mayur Narkhede, ² Julie Goodfriend, ¹ Joanna Rhodes Kaitlin Kennard, ⁴ Colleen Dorsey, ¹ Lisa Sarmasti, ⁵ Kathleen Calivo, ⁶ Joseph Carver Steven Schuster Bruce D. Cheson, ⁷ Anthony Mato, ⁸ ¹ Memorial Sloan-Kettering Cancer Center, New York, NY, United States, ² Georgetown University Hospital Lombardi Comprehensive Cancer, Washington, DC, United States, ³ Abramson Cancer Center, University of Pennsylvania, Philadelphia, Pa, United States, ⁴ University of Pennsylvania, Philadelphia, Pennsylvania, United States, ⁵ Memorial Sloan-Kettering Cancer Center, United States, ⁶ Memorial Sloan Kettering Cancer Center, Basking Ridge, NJ, United States, ⁷ Georgetown University Hospital, Washington, DC, United States, ⁸ Memorial Sloan Kettering Cancer Center, New York, New York, United States
1975	Incidence and pattern of bleeding complications in Chinese patients treated with ibrutinib: a retrospective study
	Thomas Sau Yan Chan (Primary Presenter), ¹ Eric Tse, ² ¹ Queen Mary Hospital, Hong Kong, Hong Kong, Hong Kong SAR, ² University of Hong Kong, Hong Kong, Hong Kong SAR

1976	Total cost of care with 12 months fixed duration of venetoclax + obinutuzumab in previously-untreated chronic lymphocytic leukemia (CLL) patients
	Sang Kyu Cho, ¹ Beenish Manzoor (Primary Presenter), ² Kavita Sail, ³ Arliene Ravelo, ⁴ Sheila Shapouri, ⁵ Simon Sharmokh, ⁶ Tatyana Kapustyan, ⁷ Scott Johnson, ⁸ Helene Parise, ⁸ Suchin Virabhak, ⁹ Matthew Davids, ¹⁰ ¹ AbbVie Inc., United States, ² AbbVie, North Chicago, Illinois, United States, ³ AbbVie Inc., Vernon Hills, Illinois, United States, ⁴ Genentech, United States, ⁵ Genentech, Inc., South San Francisco, CA, United States, ⁶ AbbVie Inc., Chicago, Illinois, United States, ⁷ AbbVie Inc., Wilmette, IL, United States, ⁸ Medicus Economics, LLC, Milton, MA, United States, ⁹ Medicus Economics, LLC, Singapore, Singapore, ¹⁰ Dana-Farber Cancer Institute, Boston, Massachusetts, United States
1977	Real-world data on efficacy and safety of obinutuzumab plus chlorambucil, rituximab plus bendamustine and rituximab plus chlorambucil in front-line CLL therapy: The GO-CLLEAR Study by Czech CLL Study Group
	Lucie Němcová, ¹ Lucie Nekvindová, ² Martin Spacek, ³ Martin Šimkovič, ⁴ Tomas Papajik, ⁵ Martin Brejcha, ⁶ Daniel Lysák, ⁷ Jana Zuchnická, ⁸ Jan Novák, ⁹ David Starostka, ¹⁰ Hynek Poul, ¹¹ Filip Vrbacký, ¹² Renata Urbanová, ¹³ Anna Panovska, ¹ Karla Plevova, ¹⁴ Sarka Pospisilova, ¹⁵ Stanislava Hrobková Eva Koritřáková Lukas Smolej Michael Doubek (Primary Presenter), ¹ University Hospital Brno, Brno, Czech Republic, ² Institute of Biostatistics and Analyses, Ltd., Brno, Czech Republic, Czech Republic, ³ Charles University and General University Hospital, Prague, Czech Republic, ⁴ Martin Šimkovič, Hradec Kralove, Czech Republic, ⁵ Faculty Hospital Olomouc, Olomouc, Czech Republic, ⁶ Oncology Center, Nový Jičín, Czech Republic, Czech Republic, ⁷ Department of Hematology and Oncology, University Hospital, Plzeň, Pilsen, Czech Republic, ⁸ Department of Hematology, University Hospital, Ostrava, Czech Republic, ⁹ University Hospital Kralovske Vinohrady, Praha 10, Czech Republic, ¹⁰ Department of Hematology, Havířov, Havirov, Czech Republic, ¹¹ Department of Hematology, Pelhřimov, Pelhřimov, Czech Republic, ¹² University Hospital and Faculty of Medicine in Hradec Kralove, Hradec Kralove, Czech Republic, ¹³ Department of Hematooncology, University Hospital, Olomouc, Olomouc, Czech Republic, ¹⁴ University Hospital Brno & Masaryk University, Brno, Czech Republic, ¹⁵ CEITEC Masaryk University; Department of Internal Medicine - Hematology and Oncology, University Hospital Brno and Medical Faculty MU, Brno, Czech Republic University Hospital Brno, Czech Republic Institute of Biostatistics and Analyses, Brno, Czech Republic Faculty Hospital Hradec Kralove, Hradec Kralove, Czech Republic University Hospital and Faculty of Medicine, Brno, Czech Republic
1978	Project ECHO - Angel Roffo Institute of Oncology: Telementoring Program for CLL patients in Argentina.
	María Silvana Cugliari (Primary Presenter), ¹ Giselda De Stefano, ² Sanjeev Arora, ³ Valeria Arciuch, ⁴ Marta Zerga, ⁵ ¹ Angel H. Roffo Institute of Oncology, CABA, Argentina, ² Departamento de Hematología, Instituto Angel Roffo,

	Argentina, ³ echo@salud.unm.edu, United States, ⁴ Abbvie, CABA, Argentina, ⁵ Angel H. Roffo Institute of Oncology, Buenos Aires, Argentina
1979	Dealing with small TP53 clones detected by next-generation sequencing (NGS) in the clinical setting
	Tatjana Pandzic, ¹ Claes Ladenvall, ² Marie Engvall, ³ Mattias Mattsson, ¹ Monica Hermansson, ³ Lucia Cavelier, ⁴ Panagiotis Baliakas (Primary Presenter), ² , ¹ Uppsala University Hospital, Uppsala, Sweden, ² Uppsala University, Uppsala, Sweden, ³ Department of Immunology, Genetics and Pathology, Science for Life Laboratory, Uppsala University, Sweden, Uppsala, Sweden, ⁴ Department of Immunology, Genetics and Pathology, Science for Life Laboratory, Uppsala University, Sweden, Sweden
1981	Real-world treatment patterns and outcomes in chronic lymphocytic leukemia (CLL) patients on novel agents in the US Veterans Health Administration (VHA) system: preliminary analysis of a retrospective electronic medical record (EMR) and chart review study
	Zohra Nooruddin (Primary Presenter), ¹ Hannah Le, ² Daniel McHugh, ³ Cynthia Elesinmogun, ² Samantha Galley Kathleen Franklin, ⁴ Juan Tavera, ⁵ David Gregorio, ⁶ Snegha Ananth, ⁴ Ricardo Uribe Prathibha Surapaneni, ⁴ Manuel Espinoza-Gutarra, ⁵ Michael Song, ⁴ Xavier Jones, ⁷ Christopher Frei, ⁸ , ¹ South Texas Veterans Healthcare System, San Antonio, Tx, United States, ² AstraZeneca, Gaithersburg, Maryland, United States, ³ AstraZeneca, Georgetown, Tx, United States, ⁴ South Texas Veterans Healthcare System, San Antonio, Texas, United States, ⁵ South Texas Veterans Healthcare System, United States, ⁶ South Texas Veterans Healthcare System, San Antonio, Uruguay, ⁷ The University of Texas at Austin, San Antonio, TX, United States, ⁸ The University of Texas at Austin, San Antonio, Texas, United States
1982	The relationship between serum concentration and off-target effects of ibrutinib
	Elena Dmitrieva, ¹ Evgeny Melnikov, ² Eugene Nikitin (Primary Presenter), ¹ Andrei Danko, ² Tatyana Chernyavskaya, ² Elena Vasilieva, ² Vadim Ptushkin, ³ , ¹ S. P. Botkin city hospital, Moscow, Russian Federation, ² I. V. Davidovsky city clinical hospital, Moscow, Russian Federation, ³ Moscow Botkin Hospital, Moscow, Russian Federation
1983	Prognostic significance of the percentage of 13q14 deletion in Argentinean patients with chronic lymphocytic leukemia
	Maria Virginia Palau Nagore (Primary Presenter), ¹ Maria Brizuela, ² Isabel Giere, ³ Flavia Stella, ⁴ Carmen Graciela Stanganelli, ⁵ Camila Galvano, ⁴ Andrea Krzywinski, ⁶ Cecilia Lang, ⁷ Lorena Zanella, ⁸ Evangelina Agriello, ⁹ Raimundo Bezares, ¹⁰ Cecilia Maria Rodriguez, ¹¹ Viviana Heller, ¹² Mario Luciano Salvano, ¹³ Carolina Pavlovsky Miguel Pavlosky, ¹⁴ Irma Slavutsky, ¹⁵ , ¹ Laboratorio de Genética de Neoplasias Linfoides, Instituto de Medicina Experimental, CONICET-Academia Nacional de Medicina, Buenos Aires, Argentina, ² Instituto de Medicina Experimental, CONICET-Academia Nacional

	de Medicina., CABA, Argentina, ³ Fundaleu, Buenos Aires, Argentina, ⁴ Instituto de Medicina Experimental, CONICET-Academia Nacional de Medicina., Buenos Aires, Argentina, ⁵ Academia Nacional de Medicina, Buenos Aires, Argentina, ⁶ 13. Laboratorio de Genética de Neoplasias Linfoides, Instituto de Medicina Experimental, CONICET-Academia Nacional de Medicina., Buenos Aires, Argentina, ⁷ Laboratorio LEB, Bahía Blanca, Argentina, ⁸ 15. Laboratorio de Especialidades Bioquímicas (LEB), Bahía Blanca, Argentina, ⁹ Laboratorio de Especialidades Bioquímicas (LEB), bahia blanca, Argentina, ¹⁰ Hospital General de Agudos Dr. Teodoro Alvarez, CABA, Argentina, ¹¹ Hospital Nacional de Clínicas, Facultad de Ciencias Médicas, Universidad Nacional de Córdoba, Cordoba, Argentina, ¹² Hospital Nacional de Clínicas, Facultad de Ciencias Médicas, Universidad Nacional de Córdoba, Córdoba, Argentina, ¹³ Clínica Universitaria Reina Fabiola, Córdoba, Argentina, ¹⁴ FUNDALEU, CABA, Argentina, ¹⁵ IMEX-CONICET-ANM, CABA, Argentina
1984	Real-world data on the PI3Kδ inhibitor idelalisib in relapsed/refractory CLL patients treated in Sweden
	Agnes Mattsson (Primary Presenter), ¹ Sandra Sylvan, ² Tom Mulder, ² Per Axelsson, ³ Fredrik Ellin, ⁴ Catharina Lewerin, ⁵ Bertil Uggla, ⁶ Anders Österborg, ⁷ Lotta Hansson, ⁸ , ¹ Department of Internal Medicine, Södersjukhuset, Stockholm, Sweden, ² Karolinska Institutet, Stockholm, Sweden, ³ Department of Hematology, Helsingborg's hospital, Helsingborg, Sweden, ⁴ Department of Medicine, Kalmar County Hospital, Kalmar, Sweden, ⁵ Section of Hematology and Coagulation, Sahlgrenska University Hospital, Gothenburg, Sweden, ⁶ Department of Medicine, University Hospital Örebro, Örebro, Sweden, ⁷ Karolinska University Hospital Solna, Department of Hematology, Stockholm, Sweden, ⁸ Department of Hematology, Karolinska University Hospital, Solna, Sweden
1985	NanoString nCounter-based mRNA profiling of genes in chronic lymphocytic leukemia (CLL) cells derived from the blood, bone marrow and lymph node compartments.
	Kyle Crassini (Primary Presenter), ¹ Yandong Shen, ² William Stevenson, ³ Stephen P. Mulligan, ⁴ Giles Best, ⁵ , ¹ Kolling Institute of Medical Research, Coogee, Australia, ² Kolling Institute, University of Sydney, St Leonards, Australia, ³ Royal North Shore Hospital, St Leonards, Australia, ⁴ Royal North Shore Hospital, University of Sydney, Sydney, Australia, ⁵ University of Sydney, Sydney, Australia
1986	The dual PI3/PIM-kinase inhibitor, IBL-202, is synergistic with venetoclax against TP53-deficient CLL cells under conditions that mimic the lymph node microenvironment
	Yandong Shen (Primary Presenter), ¹ Kyle Crassini, ² Narjis Fatima, ³ Michael O'Dwyer, ⁴ Michael O'Neill, ⁵ Richard Christopherson, ⁶ Stephen P. Mulligan, ⁷ Giles Best, ⁸ , ¹ Kolling Institute, University of Sydney, St Leonards, Australia, ² Kolling Institute of Medical Research, Coogee, Australia, ³ Kolling institute of Medical research RNSH, University of Sydney., SYDNEY, Australia, ⁴ National

	University of Ireland, Galway, Ireland, ⁵ Inflection Bioscience Ltd, London, United Kingdom, ⁶ University of Sydney, Camperdown, Australia, ⁷ Royal North Shore Hospital, University of Sydney, Sydney, Australia, ⁸ University of Sydney, Sydney, Australia
1987	Targeting MDSCs in CLL-bearing mice by suppressing the synthesis of secretory IgM via activation of RIDD
	Chih-Hang Tang Chih-Chi Hu (Primary Presenter) The Wistar Institute, Philadelphia, PENNSYLVANIA, United States
1988	The integrated stress response (ISR) inhibitor, TR57, is synergistic with venetoclax in CLL irrespective of TP53 status
	Narjis Fatima (Primary Presenter), ¹ Kyle Crassini, ² Yandong Shen, ³ Richard Christopherson, ⁴ Edwin J. Iwanowicz, ⁵ Stephen P. Mulligan, ⁶ Giles Best, ⁷ , ¹ Kolling institute of Medical research RNSH, University of Sydney., SYDNEY, Australia, ² Kolling Institute of Medical Research, Coogee, Australia, ³ Kolling Institute, University of Sydney, St Leonards, Australia, ⁴ University of Sydney, Camperdown, Australia, ⁵ Madera Biosciences, United States, ⁶ Royal North Shore Hospital, University of Sydney, Sydney, Australia, ⁷ University of Sydney, Sydney, Australia
1989	Patient-reported outcomes monitoring dramatically improves therapy adherence and overall survival in ibrutinib-exposed patients: a retrospective study from the FILO group
	Anne-Sophie Michallet (Primary Presenter), ¹ YSEBAERT Loic, ² Emmanuelle Ferrant, ³ Louise LOISON, ⁴ Anne Quinquenel, ⁵ Fontanet Bijou, ⁶ Annie Brion, ⁷ Laribi Kamel, ⁸ Romain Guieze, ⁹ Aline Clavert, ¹⁰ Alice Teste, ¹¹ , ¹ Centre Léon Bérard, Lyon, France, ² IUCT Oncopole Toulouse, Toulouse, France, ³ CH LYON SUD, Pierre-Benite, France, ⁴ Centre Léon Bérard- Pharmacie clinique, Lyon, France, ⁵ CHU de Reims, Reims, France, ⁶ Institut Bergonie, Bordeaux, France, ⁷ Chu Besancon, Besancon, France, ⁸ CH Le mans, Le mans, France, ⁹ Chu De Clermont Ferrand, Paris, France, ¹⁰ CHU ANGERS, ANGERS, France, ¹¹ CHU CLERMONT FERRAND, France
1990	Characteristics and Outcomes of Ibrutinib-Associated Musculoskeletal Toxicities in CLL Patients
	Joanna Rhodes (Primary Presenter), ¹ Anthony Mato, ² Rebecca Hubbard, ³ Elise Chong, ⁴ Nicole Winchell, ⁵ Kaitlin Kennard, ⁴ Sunita Nasta, ⁶ Daniel Landsburg James Gerson, ³ Stefan Barta, ⁷ Jakub Svoboda Alison Loren, ³ Vincent Lo Re, ³ Steven Schuster, ¹ Northwell Health, Lake Success, NY, United States, ² Memorial Sloan Kettering Cancer Center, New York, New York, United States, ³ University of Pennsylvania, Philadelphia, PA, United States, ⁴ University of Pennsylvania, Philadelphia, Pennsylvania, United States, ⁵ Thomas Jefferson University Hospital, Philadelphia, PA, United States, ⁶ Abramson Cancer Center, University of Pennsylvania, Philadelphia, Pa, United States, ⁷ University of Pennsylvania, United States

1991	A phase I/II study of the SYK inhibitor entospletinib in combination with obinutuzumab in patients with relapsed/refractory chronic lymphocytic leukemia (CLL)
	Adam Kittai (Primary Presenter), ¹ Taylor Hashiguchi, ² Bria Thurlow, ³ Basak Gokcora, ⁴ Andrzej Stadnik, ³ Renee MacKinnon, ⁵ Monette Stephen, ³ Lacey Moore, ⁶ Daniel Persky, ⁷ Byung Park, ⁴ Stephen Spurgeon, ⁴ Alexey Danilov, ² , ¹ The Ohio State University, Columbus, OH, United States, ² Oregon Health and Science University, Portland, Oregon, United States, ³ Oregon Health & Science University, Portland, OR, United States, ⁴ Oregon Health & Science University, Portland, Oregon, United States, ⁵ Oregon Health & Science University, United States, ⁶ Oregon Health and Science University, Portland, OR, United States, ⁷ University of Arizona Cancer Center, Tucson, AZ, United States
1992	Epidemiology and treatment patterns of chronic lymphocytic leukemia newly diagnosed in Israel in 1999-2017
	Clara Weil, ¹ Gabriel Chodick, ² Varda Shalev, ³ Inna Kan, ⁴ Ran Afik, ⁵ Raanan Cohen, ⁶ Kavita Sail, ⁷ Yair Herishanu (Primary Presenter), ⁸ , ¹ Maccabitech Institute for Research and Innovation, Tel Aviv, Israel, ² Maccabitech Institute for Research and Innovation, Tel-Aviv, Israel, ³ Maccabitech Institute for Research and Innovation, Israel, ⁴ AbbVie Israel, Hod Hasharon, Israel, ⁵ AbbVie Inc., Hod Hasharon, Israel, ⁶ abbvie, hod hasharon, Israel, ⁷ AbbVie Inc., Vernon Hills, Illinois, United States, ⁸ Tel-Aviv Medical Center, Tel-Aviv, Israel
1993	Role of p66Shc in the interplay of leukemic cells with the cellular components of the microenvironment to suppress anti-tumor immunity
	Nagaja Capitani (Primary Presenter), ¹ Laura Patrussi, ² Noemi Manganaro, ² Federica Frezzato, ³ ANDREA VISENTIN, ⁴ Livio Trentin, ³ Gianpietro Semenzato, ⁵ Dimitar Efremov, ⁶ Cosima Baldari, ² , ¹ University of Siena, Italy, Siena, Italy, ² University of Siena, Siena, Italy, ³ University of Padova, Padova, Italy, ⁴ University of Padua, PADOVA, Italy, ⁵ University of Padua, Padua, Italy, ⁶ International Center for Genetic Engineering and Biotechnology, Trieste, Italy
1994	Real-world outcomes of 55 patients with chronic lymphocytic leukemia treated with ibrutinib
	Kathrine Aarup (Primary Presenter), ¹ Lisbeth Enggaard, ² Michael Asger Andersen, ¹ Carsten Utoft Niemann, ³ , ¹ Rigshospitalet, Copenhagen, Denmark, ² Herlev Hospital, Herlev, Denmark, ³ Rigshospitalet, Copenhagen University Hospital, Copenhagen, Denmark
1995	Lack of p66Shc enhances the ability of leukemic cells from Emu-TCL1 mice to shape the microenvironment
	Laura Patrussi (Primary Presenter), ¹ Nagaja Capitani, ² Noemi Manganaro, ¹ Federica Frezzato, ³ ANDREA VISENTIN, ⁴ Livio Trentin, ³ Gianpietro Semenzato, ⁵ Dimitar Efremov, ⁶ Cosima Baldari, ¹ , ¹ University of Siena, Siena, Italy, ² University of Siena, Italy, Siena, Italy, ³ University of Padova, Padova, Italy, ⁴ University of Padua, PADOVA, Italy, ⁵ University of Padua, Padua, Italy, ⁶ International Center for Genetic Engineering and Biotechnology, Trieste, Italy

1996	Minimal residual disease and its association with overall and progression-free survival in CLL: a systematic literature review
	Raymond Johnston (Primary Presenter), ¹ Alexandra Furber, ² Cassie Springate, ³ Ning Yu, ⁴ ¹ Abbvie Ltd, Belfast, United Kingdom, ² Crystallise, Basildon, United Kingdom, ³ Crystallise Ltd, Basildon, United Kingdom, ⁴ Abbvie Ltd, United Kingdom
1997	Targeting the MDM2-p53 interaction: evaluation of a novel, potent MDM2-p53 antagonist in patient-derived CLL cells
	Elaine Willmore (Primary Presenter), ¹ Erhan Aptullahoglu, ¹ Yan Zhao, ² Suzanne Kyle, ¹ Huw Thomas, ¹ Maria Ahn, ³ Lynsey Fazal, ³ Martin Noble, ¹ Ian Hardcastle, ¹ Steven Howard, ³ Gianni Chessari, ³ John Lunec, ¹ Steve Wedge, ¹ , ¹ Newcastle University, Newcastle upon Tyne, United Kingdom, ² Northern Institute for Cancer Research, Newcastle University, Newcastle upon Tyne, United Kingdom, ³ Astex Pharmaceuticals, Cambridge, United Kingdom
1998	Effect of long-term ibrutinib treatment on T-cell number and profile in relapsed or refractory chronic lymphocytic leukemia patients: correlation with clinical response and tumor burden up to 4-years follow-up
	Marzia Palma (Primary Presenter), ¹ Kia Heimersson, ² Tom Mulder, ³ Håkan Mellstedt, ³ Anders Österborg, ⁴ , ¹ Karolinska University Hospital, Solna, Sweden, ² Karolinska Institutet, Solna, Sweden, ³ Karolinska Institutet, Stockholm, Sweden, ⁴ Karolinska University Hospital Solna, Department of Hematology, Stockholm, Sweden
1999	Use of antibiotics and risk of chronic lymphocytic leukemia: a population-based case-control study
	Michael Asger Andersen (Primary Presenter), ¹ Klaus Rostgaard, ² Carsten Utoft Niemann, ³ Henrik Hjalgrim, ² , ¹ Rigshospitalet, Copenhagen, Denmark, ² Statens Serum Institut, Copenhagen, Denmark, ³ Rigshospitalet, Copenhagen University Hospital, Copenhagen, Denmark
2000	Effect of intravenous IgM-enriched immunoglobulin (IVIgGM) on in vitro activation of T and B cells from CLL patients and its interactions with other therapeutic agents
	Ana Colado (Primary Presenter), ¹ Esteban Enrique Elias, ² GREGORIO RAUL CORDINI, ³ Maricef Vergara Rubio, ¹ Denise Risnik, ² Alicia E Diaz, ⁴ Pablo Morande, ⁵ Raimundo Bezares, ⁶ Mirta Giordano, ⁷ Romina Gamberale, ² Mercedes Borge, ² , ¹ IMEX-CONICET-ANM, CABA, Argentina, ² IMEX-CONICET-ANM, Buenos Aires, Argentina, ³ Hospital de Clínicas José de San Martín UBA, IMEX-CONICET-ANM, CIUDAD DE BUENOS AIRES, Argentina, ⁴ Hospital General de Agudos T Alvarez y Hospital Municipal de Luján, Argentina, ⁵ INIGEM (CONICET-Universidad de Buenos Aires) Facultad de Farmacia y Bioquímica-Hospital de Clínicas, Ciudad Autónoma de Buenos Aires, Argentina, ⁶ Hospital General de Agudos Dr. Teodoro Alvarez, CABA, Argentina, ⁷ Institute for Experimental Medicine, Ciudad de Buenos Aires, Argentina

2002	Outcomes following the addition of rituximab to R/R CLL patients progressing after durable responses on venetoclax monotherapy
	Sasanka Handunnetti, ¹ Mary Ann Anderson (Primary Presenter), ² Andrew W. Roberts, ³ Matthew Davids, ⁴ Kathryn Humphrey, ⁵ Brian Oliver, ⁶ Abdullah Masud Amanda Jacobson, ⁶ John F. Seymour, ⁷ ¹ Clinical Hematology Department, Peter MacCallum Cancer Centre and Royal Melbourne Hospital, Melbourne, Australia; University of Melbourne, Melbourne Australia, Melbourne, Australia, ² The Royal Melbourne Hospital and Peter MacCallum Cancer Centre Clinician Researcher The Walter and Eliza Hall Institute, Melbourne, Australia, ³ Royal Melbourne Hospital and Walter and Eliza Hall Institute of Medical Research, Melbourne, Australia, ⁴ Dana-Farber Cancer Institute, Boston, Massachusetts, United States, ⁵ Roche/Genentech, Welwyn Garden City, United Kingdom, ⁶ Abbvie Inc., North Chicago, IL, United States, ⁷ Peter MacCallum Cancer Centre, Melbourne, Australia
2003	Association of gene polymorphisms in the p53 pathway with chromosome alterations in chronic lymphocytic leukemia
	Zema Verónica Mercado Guzmán (Primary Presenter), ¹ María Belén Fontecha, ² María del Rosario Anadón, ² Camila Galvano, ³ Carmen Graciela Stanganelli, ⁴ Maria Fernanda Tosin, ⁵ Javier Bordone, ⁶ Raimundo Bezares, ⁷ ALICIA ENRICO, ⁸ Cecilia Maria Rodriguez, ⁹ Viviana Heller, ¹⁰ Ariela Fundia, ² Irma Slavutsky, ¹¹ ¹ Instituto de Medicina Experimental (IMEX), CONICET - Academia Nacional de Medicina, Ciudad de Buenos Aires., Argentina, ² Laboratorio de Farmacogenómica, Instituto de Medicina Experimental (IMEX), CONICET - Academia Nacional de Medicina, Buenos Aires, Argentina, ³ Instituto de Medicina Experimental, CONICET-Academia Nacional de Medicina., Buenos Aires, Argentina, ⁴ Academia Nacional de Medicina, Buenos Aires, Argentina, ⁵ Servicio de Hematología, Hospital El Cruce, Florencio Varela, Argentina, ⁶ Hospital El Cruce, Florencio Varela, Argentina, ⁷ Hospital General de Agudos Dr. Teodoro Alvarez, CABA, Argentina, ⁸ NONE, BUENOS AIRES, Argentina, ⁹ Hospital Nacional de Clínicas, Facultad de Ciencias Médicas, Universidad Nacional de Córdoba, Cordoba, Argentina, ¹⁰ Hospital Nacional de Clínicas, Facultad de Ciencias Médicas, Universidad Nacional de Córdoba, Córdoba, Argentina, ¹¹ IMEX-CONICET-ANM, CABA, Argentina
2004	Assessing the long-term effects of treatment with ibrutinib on blood pressure in patients with chronic lymphocytic leukemia
	Jade Jones (Primary Presenter), ¹ Christine Peterson, ² Jan A. Burger, ³ Nitin Jain, ² Michael Keating, ⁴ Jean-Bernard Durand, ¹ Alessandra Ferrajoli, ⁵ ¹ MD Anderson Cancer Center, Houston, Texas, United States, ² The University of Texas MD Anderson Cancer Center, Houston, Texas, United States, ³ University of Texas, MD Anderson Cancer Center, Houston, Texas, United States, ⁴ University of Texas, MD Anderson Cancer Center, Houston, TX, United States, ⁵ The University of Texas MD Anderson Cancer Center, Houston, TX, United States
2005	Expression of LEF1 in Japanese cases of CLL (CLLRSG-01 study).

	<p>Jun Takizawa (Primary Presenter),¹ Ritsuro Suzuki,² Keisuke Kawamoto,¹ Takaharu Suzuki,¹ Toru Kiguchi,³ Taro Masunari Atae Utsunomiya,⁴ Yoshio Saburi,⁵ Jun Murakami,⁶ Koichi Kitazume,⁷ Yasuhiro Suzuki,⁸ Kengo Takeuchi,⁹ Naoya Nakamura,¹⁰ Koichi Ohshima,¹¹ Sadao Aoki,¹² Junji Suzumiya,¹³, ¹Niigata University, Niigata, Japan, ²Shimane University Cancer Center, Izumo, Japan, ³Chugoku Central Hospital, Fukuyama, Japan, ⁴Imamura General Hospital, Kagoshima, Japan, ⁵Oita Prefectural Hospital, Oita, Japan, ⁶University of Toyama, Toyama city, Japan, ⁷Showa General Hospital, Kodaira-city, Japan, ⁸Nagoya Medical Center, Nagoya, Japan, ⁹the Cancer Institute, Japanese Foundation for Cancer Research, Tokyo, Japan, ¹⁰Tokai University, Isehara, Japan, ¹¹Kurume University, Kurume, Japan, ¹²Niigata University of Pharmacy and Applied Life Sciences, Niigata, Japan, ¹³Shimane University Hospital, Izumo, Japan</p>
2006	<p>Modelling Chronic Lymphocytic Leukemia microenvironment in vitro by exploiting newly-established 3D systems</p>
	<p>Francesca Vittoria Sbrana (Primary Presenter),¹ Fiorella Scagnoli,² Federica Barbaglio,³ Lydia Scarfo,⁴ Héctor Martínez,⁵ Itedal Redwan,⁶ Paolo Ghia,⁷ Cristina Scielzo,⁸, ¹Fondazione Centro San Raffaele, Milan, Italy, ²OSPEDALE SAN RAFFAELE SRL, Milano, Italy, ³IRCCS OSPEDALE SAN RAFFAELE, Milano, Italy, ⁴Università Vita-Salute San Raffaele and IRCCS Ospedale San Raffaele, Milano, Italy, ⁵Cellink, Sweden, ⁶Cellink, Gothenburg, Sweden, ⁷Università Vita-Salute San Raffaele and IRCCS Ospedale San Raffaele, Milan, Italy, ⁸IRCCS, San Raffaele Hospital, Milano, Italy, Milan, Italy</p>
2008	<p>Predicting tumor lysis syndrome in venetoclax-treated CLL patients</p>
	<p>Lindsey Roeker,¹ Danielle Brander,² Catherine Coombs,³ Steven Schuster,⁴ John Allan,⁵ Brian Hill,⁶ Erick Lansigan,⁷ Bruce D. Cheson,⁸ Maryam Yazdy,⁹ Nicole Lamanna,¹⁰ Paul Barr,¹¹ Alan Skarbnik,¹² Chaitra Ujjani,¹³ Mazyar Shadman,¹⁴ Joanna Rhodes,⁴ John M. Pagel,¹⁵ Ryan Jacobs Andre Goy Nirav Shah Andrew Zelenetz Anna Schuh Toby Eyre Christopher Fox Anthony Mato (Primary Presenter), ¹Memorial Sloan-Kettering Cancer Center, New York, NY, United States, ²Duke University, Durham, North Carolina, United States, ³University of North Carolina, Chapel Hill, NC, United States, ⁴Abramson Cancer Center, University of Pennsylvania, Philadelphia, PA, United States, ⁵Weill Cornell Medicine, New York, New York, United States, ⁶Cleveland Clinic, Cleveland, OH, United States, ⁷Dartmouth-Hitchcock Medical Center, Lebanon, New Hampshire, United States, ⁸Georgetown University Hospital, Washington, DC, United States, ⁹Georgetown University Hospital Lombardi Comprehensive Cancer, Washington, DC, United States, ¹⁰Columbia University Medical Center, New York, New York, United States, ¹¹University of Rochester, Rochester, NY, United States, ¹²Novant Health, Charlotte, NC, United States, ¹³Seattle Cancer Care Alliance/ Fred Hutchinson Cancer Research Center, Seattle, Washington, United States, ¹⁴Fred Hutchinson Cancer Research Center, Seattle, WA, United States, ¹⁵Swedish Cancer Institute, Seattle, WA, United States Carolinas HealthCare Institute- Levine Cancer Institute, Charlotte, North Carolina, United States John Theurer Cancer Center, Hackensack University Medical Center,</p>

	United States Medical College of Wisconsin, Milwaukee, WI, United States MSKCC, New York, New York, United States University of Oxford, Oxford, United Kingdom Oxford University Hospitals NHS Trust, Oxford, United Kingdom Nottingham University Hospitals NHS Trust, Nottingham, United Kingdom Memorial Sloan Kettering Cancer Center, New York, New York, United States
2009	Pevedistat, a NEDD8-activating enzyme (NAE) inhibitor, is a favorable modulator of T-cell function in ex vivo studies of chronic lymphocytic leukemia (CLL)
	Scott Best (Primary Presenter), ¹ Vi Lam, ¹ Taylor Hashiguchi, ² Nur Bruss, ¹ Adam Kittai, ³ Tingting Liu Allison Berger, ⁴ Evan Lind, ¹ Amy Moran, ¹ Alexey Danilov, ² ¹ Oregon Health and Science University, Portland, OR, United States, ² Oregon Health and Science University, Portland, Oregon, United States, ³ The Ohio State University, Columbus, OH, United States, ⁴ Takeda Pharmaceutical Company Limited, Cambridge, MA, United States
2010	Developing a 3D chronic lymphocytic leukemia microenvironment
	Tricia Choquette (Primary Presenter), ¹ Spencer Gibson, ² James Johnston, ² ¹ Research Institute of Oncology and Hematology - University of Manitoba, Winnipeg, Manitoba, Canada, ² Research Institute in Oncology and Hematology, Winnipeg, Manitoba, Canada
2013	A multicentre survey of the management of chronic lymphocytic leukaemia in Southwest Nigeria: an African perspective
	Norah Akinola (Primary Presenter), ¹ Lateef Salawu, ² Taiwo Kotila, ³ Philip Olatunji, ⁴ Omotola Ojo, ⁴ Oladapo Aworanti, ⁵ Patrick Osho, ⁶ Adegbamigbe Oluwafemi, ⁷ Lawretta Onwah, ⁸ Kehinde Olufemi-Aworinde, ⁹ Boma Paul-Odo, ¹⁰ Olabisi Gbotosho, ⁸ Rahman Bolarinwa, ¹¹ Kayode Adelusola, ¹¹ ¹ Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, Nigeria, Ile-Ife, Nigeria, ² Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, Nigeria, ³ University College Hospital, Ibadan, Nigeria, ⁴ Olabisi Onabanjo University Teaching Hospital, Sagamu, Nigeria, ⁵ Ladoke Akintola University of Technology Teaching Hospital, Ogbomosho, Nigeria, ⁶ University of Medical Sciences, Ondo, Nigeria, ⁷ Federal Teaching Hospital, Ido-Ekiti. Nigeria, Ido-Ekiti, Nigeria, ⁸ Federal Medical Centre, Abeokuta, Abeokuta, Nigeria, ⁹ Bowen University Teaching Hospital, Ogbomosho, ogbomosho, Nigeria, ¹⁰ Federal Medical Centre, Owo, Owo, Nigeria, ¹¹ Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, Ile-Ife, Nigeria
2014	Richter transformation in CLL: a meta-analysis of GCLLSG trials
	Othman Al-Sawaf (Primary Presenter), ¹ Sandra Robrecht, ¹ Jasmin Bahlo, ¹ Anna-Maria Fink, ¹ Paula Cramer, ² Julia von Tresckow, ³ Elisabeth Lange, ⁴ Michael Kiehl, ⁵ Martin Dreyling, ⁶ Matthias Rittgen, ⁷ Jan Dürig, ⁸ Kirsten Fischer, ⁹ Stephan Stilgenbauer, ¹⁰ Clemens Wendtner, ¹¹ Valentin Goede, ¹² Michael Hallek, ¹³ Barbara Eichhorst, ¹ ¹ University Hospital of Cologne, Cologne, Germany, ² University of Cologne, Faculty of Medicine and University

	<p>Hospital of Cologne, Department of Internal Medicine and German CLL Study Group, Cologne, Germany, ³University Cologne, Cologne, Germany, ⁴Evangelisches Krankenhaus Hamm, Hamm, Germany, ⁵Frankfurt (Oder) General Hospital, Frankfurt Oder, Germany, ⁶University Hospital of the Ludwig-Maximilians-University, Munich, Germany, ⁷University of Schleswig-Holstein, Campus Kiel, Kiel, Germany, ⁸Dept. Hematology, University Hospital Essen, Essen, Germany, ⁹University Hospital of Cologne - German CLL Study Group, Cologne, Germany, ¹⁰University of Ulm, Ulm, Germany, ¹¹Hospital Munich-Schwabing, Munich, Germany, ¹²St. Marien Hospital, Cologne, Germany, ¹³University of Cologne, Faculty of Medicine and University Hospital of Cologne, Department 1 of Internal Medicine and German CLL Study Group, Cologne, Germany</p>
2016	<p>Clinico-biological significance of DNA methylation in chronic lymphocytic leukaemia patients: results from three UK clinical trials</p>
	<p>Matthew Rose-Zerilli (Primary Presenter),¹ Tomasz Wojdacz,² Harindra Amarasinghe,³ Latha Kadalayil,⁴ Stuart Blakemore,⁵ Helen Parker,¹ Dean Bryant,⁴ Marta Larrayoz,⁴ Ruth Clifford,⁶ Pauline Robbe,⁷ Zadie Davis,⁸ Monica Else,⁹ Dena Howard,¹⁰ Andrew Steele,¹ Richard Rosenquist Brandell,¹¹ Andrew Collins,¹ Andrew Pettitt,¹² Peter Hillmen,¹³ Christoph Plass,¹⁴ Anna Schuh,⁷ Daniel Catovsky,¹⁵ David Oscier,⁸ Christopher Oakes Jonathan Strefford,¹ ¹University of Southampton, Southampton, United Kingdom, ²Aarhus University, Southampton, United Kingdom, ³Oxford University, Oxford, United Kingdom, ⁴University of Southampton, United Kingdom, ⁵University of Cologne, Cologne, Germany, ⁶University Hospital Limerick, Ireland, ⁷University of Oxford, Oxford, United Kingdom, ⁸Royal Bournemouth Hospital, Bournemouth, United Kingdom, ⁹The Institute of Cancer Research, Stony Stratford, United Kingdom, ¹⁰University of Leeds, Leeds, United Kingdom, ¹¹Karolinska Institutet, Stockholm, Sweden, ¹²University of Liverpool, Liverpool, United Kingdom, ¹³The Leeds Teaching Hospitals, St. James University, Leeds, United Kingdom, ¹⁴German Cancer Research Center (DKFZ), Heidelberg, Germany, ¹⁵Institute of Cancer Research, Sutton, United Kingdom The Ohio State University-James Comprehensive Cancer Center, Columbus, OH, United States</p>
2017	<p>Long-term efficacy and safety of maintenance with lenalidomide in patients with chronic lymphocytic leukaemia and a high risk of progression after first-line immunochemotherapy</p>
	<p>Anna-Maria Fink,¹ Sandra Robrecht,¹ Jasmin Bahlo,¹ Moritz Fürstenau (Primary Presenter),² Ali Aldaoud,³ Holger Hebart,⁴ Kathleen Jentsch-Ullrich,⁵ Steffen Dörfel,⁶ Kirsten Fischer,⁷ Clemens Martin Wendtner,⁸ Thomas Nösslinger,⁹ Paolo Ghia,¹⁰ Arnon Kater,¹¹ Karl-Anton Kreuzer,¹² Eugen Tausch,¹³ Stephan Stilgenbauer,¹³ Matthias Rittgen,¹⁴ Sebastian Boettcher,¹⁵ Barbara Eichhorst,¹ Michael Hallek, ¹University Hospital of Cologne, Cologne, Germany, ²University of Cologne, Department I of Internal Medicine, Center for Integrated Oncology Aachen Bonn Cologne Duesseldorf, German CLL Study Group, University Hospital of Cologne, Cologne, Germany, ³Praxis für</p>

	<p>Hämatologie/Onkologie am HELIOS Park-Klinikum Leipzig, Germany, ⁴Zentrum für Innere Medizin, Hämatologie/Onkologie, Kliniken Ostalb, Stauferklinikum Schwäbisch-Gmünd, Mutlangen, Germany, ⁵Gemeinschaftspraxis Hämatologie und Onkologie, Magdeburg, Magdeburg, Germany, ⁶Onkologische Gemeinschaftspraxis, Dresden, Germany, ⁷University Hospital of Cologne - German CLL Study Group, Cologne, Germany, ⁸Munich Clinic Schwabing, Academic Teaching Hospital of University of Munich, Munich, Germany, ⁹Hanusch-Krankenhaus, Vienna, Austria, ¹⁰Università Vita-Salute San Raffaele and IRCCS Ospedale San Raffaele, Milan, Italy, ¹¹University of Amsterdam, Amstelveen, Netherlands, ¹²University at Cologne, Cologne, Germany, ¹³University of Ulm, Ulm, Germany, ¹⁴University of Schleswig-Holstein, Campus Kiel, Kiel, Germany, ¹⁵University Hospital of Rostock, Rostock, Germany University of Cologne, Faculty of Medicine and University Hospital of Cologne, Department 1 of Internal Medicine and German CLL Study Group, Cologne, Germany</p>
2018	<p>Efficacy and safety of ibrutinib in Chinese patients with relapsed/refractory (R/R) chronic lymphocytic leukemia or small lymphocytic lymphoma (CLL/SLL) and hepatitis B virus reactivation: a post-hoc analysis</p>
	<p>Shenmiao Yang (Primary Presenter),¹ Rong Zhu,² Yu Feng,³ Rui Zuo,⁴ Xiaojun Huang,⁵ ¹Peking University Peoples Hospital, Peking University Institute of Hematology, Beijing, China, ²Xian Janssen Pharmaceutical Ltd., Shanghai, China, ³Xian Janssen Pharmaceutical Ltd, Beijing, China, ⁴Janssen R&D China. Shanghai & Beijing, China, Shanghai, China, ⁵Peking University Peoples Hospital, China</p>
2019	<p>Factors impacting treatment selection in treatment-naïve patients with CLL: a multicenter study</p>
	<p>Joanna Rhodes (Primary Presenter),¹ Kavita Sail,² Maryam Yazdy,³ Brian Hill,⁴ Mazyar Shadman,⁵ Hande H. Tuncer,⁶ Allison Winter,⁷ Kaitlin Kennard,⁸ John Allan,⁹ Chaitra Ujjani,¹⁰ Danielle Brander,¹¹ Sang Kyu Cho,¹² Simon Sharmokh,¹³ dingfeng Jiang,¹⁴ Chadi Nabhan,¹⁵ Paul Barr Jennifer Brown Christopher Fox Anna Schuh Toby Eyre Nicole Lamanna William Wierda Alan Skarbnik Lindsey Roeker Rajat Bannerji Andrew M. Evens James M. Pauff Steven Schuster George Follows Bruce D. Cheson Barbara Eichhorst Anthony Mato, ¹Northwell Health, Lake Success, NY, United States, ²AbbVie Inc., Vernon Hills, Illinois, United States, ³Georgetown University Hospital Lombardi Comprehensive Cancer, Washington, DC, United States, ⁴Cleveland Clinic, Cleveland, OH, United States, ⁵Fred Hutchinson Cancer Research Center, Seattle, WA, United States, ⁶The Cancer Center at Lowell General Hospital, Lowell, Massachusetts, United States, ⁷Cleveland Clinic, Cleveland, Ohio, United States, ⁸University of Pennsylvania, Philadelphia, Pennsylvania, United States, ⁹Weill Cornell Medicine, New York, New York, United States, ¹⁰Fred Hutchinson Cancer Research Center, Seattle, Washington, United States, ¹¹Duke University, Durham, North Carolina, United States, ¹²AbbVie Inc., United States, ¹³AbbVie Inc., Chicago, Illinois, United States, ¹⁴AbbVie Inc.,</p>

	<p>north Chicago, Illinois, United States, ¹⁵Aptitude Health, Deerfield, IL, United States University of Rochester, Rochester, NY, United States Dana-Farber Cancer Institute, Boston, Massachusetts, United States Nottingham University Hospitals NHS Trust, Nottingham, United Kingdom University of Oxford, Oxford, United Kingdom Oxford University Hospitals NHS Trust, Oxford, United Kingdom Columbia University Medical Center, New York, New York, United States University of Texas MD Anderson, Houston, Texas, United States Novant Health, Charlotte, NC, United States Memorial Sloan-Kettering Cancer Center, New York, NY, United States Rutgers Cancer Institute of New Jersey, New Brunswick, NJ, United States Rutgers Cancer Institute of New Jersey, United States AbbVie, Inc., Burlington, Wisconsin, United States Abramson Cancer Center, University of Pennsylvania, Philadelphia, PA, United States Cambridge University Hospitals NHS Foundation Trust, Cambridge, United Kingdom Georgetown University Hospital, Washington, DC, United States University Hospital of Cologne, Cologne, Germany Memorial Sloan Kettering Cancer Center, New York, New York, United States</p>
2021	<p>Final 5-year updated results from a phase 3 study (HELIOS) of ibrutinib plus bendamustine and rituximab (BR) in patients with relapsed/refractory chronic lymphocytic leukemia (CLL)/small lymphocytic lymphoma (SLL)</p>
	<p>Graeme Fraser,¹ Asher Chanan-Khan,² FATIH DEMIRKAN,³ Rodrigo Santucci Silva,⁴ Sebastian Grosicki,⁵ Ann Janssens,⁶ Jiri Mayer,⁷ Nancy Bartlett,⁸ Marie Sarah Dilhuydy,⁹ Javier Loscertales,¹⁰ Abraham Avigdor,¹¹ Simon Rule,¹² Olga Samoilova,¹³ Miguel Pavlosky (Primary Presenter),¹⁴ Michael Hallek,¹⁵ Mariya Salman Monelle Tamegnon Steven Sun Anne Connor Kerri Nottage Sriram Balasubramanian Angela Howes Paula Cramer, ¹Juravinski Cancer Centre, McMaster University, Hamilton, Ontario, Canada, ²Division of Hematology, Mayo Clinic Cancer Center, Jacksonville, Florida, United States, ³Dokuz Eylul University, Izmir, Turkey, ⁴IEP São Lucas / Hemomed Oncologia e Hematologia, São Paulo, Brazil, ⁵Silesian Medical University, Department of Hematology and Cancer Prevention, School of Public Health, Katowice, Poland, ⁶Universitaire Ziekenhuizen Leuven, Leuven, Belgium, ⁷Hematology and Oncology, University Hospital Brno, Brno, Czech Republic, ⁸Washington University School of Medicine, Siteman Cancer Center, St. Louis, MO, United States, ⁹CHU BORDEAUX, Hopital Haut Leveque, PESSAC CEDEX, France, ¹⁰Hematology Department, Hospital Universitario La Princesa, IIS-IP, Madrid, Spain, ¹¹Sheba Medical Center, Tel Hashomer, Israel, ¹²University of Plymouth Medical School, Plymouth, United Kingdom, ¹³Nizhniy Novgorod Region Clinical Hospital, Nizhniy Novgorod, Russian Federation, ¹⁴FUNDALEU, CABA, Argentina, ¹⁵University of Cologne, Faculty of Medicine and University Hospital of Cologne, Department 1 of Internal Medicine and German CLL Study Group, Cologne, Germany Janssen Research & Development, Raritan, New Jersey, United States Janssen Research & Development, Raritan, NJ, United States Janssen Research & Development, Spring House, PA, United States Janssen R&D, Raritan, New Jersey, United States Janssen R&D, SAN DIEGO, CA, United States Janssen Research & Development, High Wycombe,</p>

	United Kingdom University of Cologne, Faculty of Medicine and University Hospital of Cologne, Department of Internal Medicine and German CLL Study Group, Cologne, Germany
2022	Surface protein expression of lipoprotein lipase and overall survival in a small prospective cohort of patients with CLL
	Elaine Kuhn, ¹ Daniel Mielcarz, ² Jacqueline Channon, ² Youdinghuan Chen, ³ Erick Lansigan (Primary Presenter), ⁴ , ¹ Dartmouth-Hitchcock Medical Center, Lebanon, NH, United States, ² Geisel School of Medicine at Dartmouth, Lebanon, NH, United States, ³ Geisel School of Medicine at Dartmouth, Hanover, NH, United States, ⁴ Dartmouth-Hitchcock Medical Center, Lebanon, New Hampshire, United States
2023	IGH repertoire of CD5+ B cells from CLL patients: insights into CLL ontogeny
	Davide Bagnara (Primary Presenter), ¹ Stefano Vergani, ² Andreas Agathangelidis, ³ Siddha Kasar, ⁴ Stacey Fernandes, ⁵ Andrea Nicola Mazzeo, ⁶ Gerardo Ferrer, ⁶ Fabio Ghiotto, ¹ KOSTAS STAMATOPOULOS, ⁷ Franco Fais, ⁸ Jennifer Brown, ⁹ Nicholas Chiorazzi, ⁶ , ¹ University of Genoa, Genoa, Italy, ² Lund University, Lund, Sweden, ³ CERTH, Thessaloniki, Greece, ⁴ Broad Institute of MIT and Harvard, Cambridge, MA, United States, ⁵ Dana Farber Cancer Institute, Boston, MA, United States, ⁶ The Feinstein Institute for Medical Research, Manhasset, New York, United States, ⁷ Institute of Applied Biosciences, Thessaloniki, Greece, ⁸ University of Genoa, Genova, Italy, ⁹ Dana-Farber Cancer Institute, Boston, Massachusetts, United States
2024	The T cell bispecific antibody CD20-TCB shows high in vitro activity against in vivo ibrutinib-treated primary CLL samples
	YSEBAERT Loic, ¹ Sarah CADOT, ² Julie BORDENAVE, ² Laetitia LARGEAUD, ³ Marina BACAC, ⁴ Christian KLEIN, ⁴ Anne QUILLET-MARY (Primary Presenter), ² , ¹ IUCT Oncopole Toulouse, Toulouse, France, ² CRCT, TOULOUSE, France, ³ IUCT-O, TOULOUSE, France, ⁴ ROCHE GLYCART AG, SCHLIEREN, Switzerland
2025	Feasibility of obinutuzumab (G) combined with higher doses of chlorambucil (Clb) for frontline treatment of CLL: a retrospective non-interventional study of KroHem, the Croatian Cooperative Group for Hematologic Diseases
	Igor Aurer (Primary Presenter), ¹ Ozren Jaksic, ² Sandra Basic-Kinda, ¹ Karla Misura Jakobac, ³ Jasminka Sincic-Petricevic, ⁴ Sabina Novakovic Coha, ⁵ Davor Galusic, ⁶ Hrvoje Holik, ⁷ toni valkovic, ⁸ Dubravka Zupanic-Krmek, ⁹ Ida Hude Dragičević, ¹ Vibor Milunovic, ³ Vlatko Pejša, ² , ¹ University Hospital Centre Zagreb, Zagreb, Croatia, ² University Hospital Dubrava, Zagreb, Croatia, ³ University Hospital Merkur, Zagreb, Croatia, ⁴ University Hospital Centre Osijek, Zagreb, Croatia, ⁵ University Hospital Centre Sisters of Mercy, Zagreb, Croatia, ⁶ University Hospital Centre Split, Split, Croatia, ⁷ General Hospital

	Slavonski Brod, Slavonski Brod, Croatia, ⁸ University Hospital Centre Rijeka, Rijeka, Croatia, ⁹ University Hospital Holy Spirit, Zagreb, Croatia
2027	Efficacy and BTK dependence of IL-21-expanded natural killer cells for CLL treatment
	Max Yano (Primary Presenter), ¹ Xiaokui Mo, ¹ Dean Lee, ² Natarajan Muthusamy, ³ John C. Byrd, ⁴ ¹ The Ohio State University, Columbus, OH, United States, ² Nationwide Children's Hospital, Columbus, OH, United States, ³ The Ohio State University, Columbus, Ohio, United States, ⁴ The Ohio State University Comprehensive Cancer Center, Columbus, Ohio, United States
2029	Minimal residual disease response with venetoclax monotherapy in relapsed/refractory CLL patients: VENICE I, phase 3b exploratory analysis
	Arnon Kater (Primary Presenter), ¹ Panayiotis Panayiotidis, ² Melih Aktan, ³ Önder Arslan, ⁴ Fatih Demirkan, ⁵ Lisbeth Enggaard, ⁶ Burhan Ferhanoglu, ⁷ Marcos González Díaz, ⁸ Yair Herishanu, ⁹ Karin Karlsson, ¹⁰ Brian Leber, ¹¹ Marco Montillo, ¹² Davide Rossi, ¹³ Alan Skarbnik, ¹⁴ Adrian Tempescul, ¹⁵ Patrick Thornton Mehmet Turgut Madlaina Breuleux Abdullah Masud Brenda Chyla Stan Fort Francesco Forconi, ¹ University of Amsterdam, Amstelveen, Netherlands, ² Laiko General Hospital, National and Kapodistrian University of Athens, Athens, Greece, ³ Istanbul Faculty of Medicine, Istanbul University, North Wales, PA, United States, ⁴ Ankara University, Ankara, Turkey, ⁵ Dokuz Eylul University, Division of Hematology, Izmir, Turkey, ⁶ Herlev Hospital, Herlev, Denmark, ⁷ Koç University School of Medicine, Istanbul, Turkey, ⁸ University Hospital, IBSAL-Salamanca, Centro de Investigación del Cáncer and CIBERONC, University of Salamanca, Salamanca, Spain, ⁹ Tel-Aviv Medical Center, Tel-Aviv, Israel, ¹⁰ Department of Hematology, Oncology and Radiation Physics, Skane University Hospital, Lund, Sweden, ¹¹ McMaster University, Hamilton, Ontario, Canada, ¹² Niguarda Hospital, Milano, Italy, ¹³ Oncology Institute of Southern Switzerland, Bellinzona, Switzerland, ¹⁴ Novant Health; John Theurer Cancer Center at Hackensack University Medical Center, Charlotte, NC, United States, ¹⁵ Brest University Medical School Hospital, Brest, France Beaumont Hospital, DUBLIN, Ireland Ondokuz Mayıs University, Samsun, Turkey F. Hoffmann - La Roche, Basel, Switzerland AbbVie Inc., North Chicago, IL, United States Dr, Southampton, United Kingdom
2030	Development of pelorol analogues to activate the SHIP1 lipid phosphatase: a novel paradigm to suppress B-cell receptor signaling in human B-cell cancers
	Beatriz Valle Argos (Primary Presenter), ¹ Elizabeth Lemm, ² Lindsay Smith, ¹ Johanna Richter, ³ Yohannes Gebreselassie, ³ Matthew Carter, ³ Jana Karolova, ⁴ Michael Svaton, ⁵ Karel Helman, ⁶ Nicola Weston-Bell, ¹ Laura Karydis, ¹ Christopher Williamson, ⁷ Georg Lenz, ⁸ Jeremy Pettigrew, ⁹ Curtis Harwig, ⁹ Freda Stevenson, ¹ Cragg Mark, ¹⁰ Francesco Forconi, ¹¹ Andrew Steele, ¹ Jennifer Cross, ¹² Lloyd Mackenzie, ¹³ Pavel Klener, ¹⁴ Graham Packham, ¹ ¹ University of Southampton, Southampton, United Kingdom, ² Cancer Research UK Centre,

	Cancer Sciences Unit, Faculty of Medicine, University of Southampton,, Southampton, United Kingdom, ³ Southampton University, Southampton, United Kingdom, ⁴ Charles University, Prague, Czech Republic, ⁵ Second Faculty of Medicine, Charles University and University Hospital Motol, Prague, Czech Republic, ⁶ University of Economics, Prague, Prague, Czech Republic, ⁷ Aquinox Pharmaceuticals, Coquitlam, BC, Canada, ⁸ University Hospital Munster, Münster, Germany, ⁹ Aquinox Pharmaceuticals, Vancouver, BC, Canada, ¹⁰ University of Southampton,, Southampton, United Kingdom, ¹¹ Dr, Southampton, United Kingdom, ¹² Aquinox Pharmaceuticals, Canada, ¹³ Mr, North Vancouver, BC, Canada, ¹⁴ Charles University, First Faculty of Medicine, Prague, Czech Republic
2031	Optimising a patient-derived xenograft model of chronic lymphocytic leukaemia
	Piers Patten (Primary Presenter), ¹ Gerardo Ferrer, ² Shih-Shih Chen, ² Nikolaos Ioannou, ¹ Alan Ramsay Nicholas Chiorazzi, ² ¹ King's College London, London, United Kingdom, ² The Feinstein Institute for Medical Research, Manhasset, New York, United States
2032	EBV-miR-BHRF1-1 targets p53 gene: potential role in Epstein-Barr virus associated chronic lymphocytic leukemia
	XU WEI (Primary Presenter) Jin-Hua Liang Li Wang Jian-Yong Li the First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital, NANJING, China
2033	Patterns of duvelisib-induced lymphocytosis in patients with relapsed/refractory chronic lymphocytic leukemia/small lymphocytic lymphoma, including those with high-risk factors treated in the DUO trial
	Jacqueline Barrientos (Primary Presenter), ¹ Ian Flinn, ² Matthew Davids, ³ Amanda Cashen, ⁴ Nicholas Chiorazzi, ⁵ Shih-Shih Chen, ⁵ Samantha Hidy, ⁶ Jonathan Pachter, ⁷ Stephanie Lustgarten, ⁸ David Weaver, ⁶ Jennifer Brown, ³ , ¹ Zucker School of Medicine at Hofstra Northwell, New Hyde Park, New York, United States, ² Sarah Cannon Research Institute, Tennessee Oncology, Nashville, TN, United States, ³ Dana-Farber Cancer Institute, Boston, Massachusetts, United States, ⁴ Washington University School of Medicine, St Louis, MO, United States, ⁵ The Feinstein Institute for Medical Research, Manhasset, New York, United States, ⁶ Verastem Oncology, Needham, MA, United States, ⁷ Verastem, Needham, Massachusetts, United States, ⁸ Verastem Oncology, Needham, Massachusetts, United States
2034	An improved benefit-risk profile of duvelisib in patients with chronic lymphocytic leukemia or small lymphocytic lymphoma who received ≥ 2 prior therapies
	Marco Montillo (Primary Presenter), ¹ Ian Flinn, ² Matthew Davids, ³ Peter Hillmen, ⁴ Julio Delgado, ⁵ Bryone Kuss, ⁶ Constantine Tam, ⁷ Ulrich Jäger, ⁸ Paolo Ghia, ⁹ Stephan Stilgenbauer, ¹⁰ Stephanie Lustgarten, ¹¹ David Weaver, ¹² Hagop Youssoufian, ¹³ Florence Cymbalista, ¹⁴ , ¹ Niguarda Hospital, Milano, Italy,

	<p>²Sarah Cannon Research Institute, Tennessee Oncology, Nashville, TN, United States, ³Dana-Farber Cancer Institute, Boston, Massachusetts, United States, ⁴The Leeds Teaching Hospitals, St. James University, Leeds, United Kingdom, ⁵Secció d’Hematopatologia,Hospital Clínic, Institut d’Investigacions Biomèdiques Augustí Pi i Sunyer (IDIBAPS), Universitat de Barcelona, Barcelona, Spain, Barcelona, Spain, ⁶Flinders Medical Centre, Bedford Park, Australia, ⁷Peter MacCallum Cancer Centre and St. Vincent’s Hospital, East Melbourne, Australia, ⁸Division of Hematology and Hemostaeology, Medical University of Vienna, Vienna, Austria, ⁹Università Vita-Salute San Raffaele and IRCCS Ospedale San Raffaele, Milan, Italy, ¹⁰University of Ulm, Ulm, Germany, ¹¹Verastem Oncology, Needham, Massachusetts, United States, ¹²Verastem Oncology, Needham, MA, United States, ¹³Verastem, Needham, MA, United States, ¹⁴Hematology Biology, Hopital Avicenne, AP-HP, Paris 13 University, Bobigny, France</p>
2035	A comparative analysis of CLL and DLBCL patients’ level of understanding after initial doctor’s appointment
	Lorna Warwick (Primary Presenter) Olufunmilayo Bamigbola Natalie Dren Lymphoma Coalition, Mississauga, Ontario, Canada
2036	Zanubrutinib for patients with relapsed or refractory chronic lymphocytic leukemia
	WEI XU (Primary Presenter), ¹ Xin Wang, ² Keshu Zhou, ³ Ling Pan, ⁴ Zengjun Li, ⁵ Jianfeng Zhou, ⁶ Sujun Gao, ⁷ Daobin Zhou, ⁸ Jianda Hu, ⁹ Ru Feng, ¹⁰ Haiwen Huang, ¹¹ Meng Ji, ¹² Haiyi Guo, ¹³ Jane Huang, ¹⁴ William Novotny, ¹⁵ Shibao Feng, ¹² JIANYONG LI, ¹ Jiangsu Province Hospital, Nanjing, China, ² Shandong Provincial Hospital, Jinan, China, ³ Affiliated Cancer Hospital of Zhengzhou University, Henan Cancer Hospital, Zhengzhou, China, ⁴ West China Hospital of Sichuan University, Chengdu, China, ⁵ Blood Disease Hospital, Chinese Academy of Medical Science, Tianjin, China, ⁶ Tongji Hospital, Tongji Medical College, Wuhan, China, ⁷ The First Hospital of Jilin University, Changchun, China, ⁸ Peking Union Medical College Hospital, Chinese Academy of Medical Sciences & Peking Union Medical College, Beijing, China, ⁹ Fujian Institute of Hematology, Fujian Provincial Key Laboratory on Hematology, Fujian Medical University Union Hospital, Fuzhou, China, ¹⁰ Nanfang Hospital of Southern Medical University, Guangzhou, China, ¹¹ The 1st Hospital of Soochow University, Suzhou, China, ¹² BeiGene (Beijing) Co., Ltd., Beijing, China and BeiGene USA, Inc., San Mateo, United States, ¹³ BeiGene (Beijing) Co., Ltd., Beijing, China and BeiGene USA, Inc., Shanghai, China, ¹⁴ BeiGene USA, Inc., San Mateo, ca, United States, ¹⁵ BeiGene (Beijing) Co., Ltd., Beijing, China and BeiGene USA, Inc., Menlo Park, California, United StatesJiangsu Provincial People's Hospital, nanjing, China
2037	Impact of adherence to ibrutinib on clinical outcomes in real-world patients with chronic lymphocytic leukemia
	Benyam Muluneh (Primary Presenter), ¹ Catherine Coombs, ² Lauren Drawdy, ³ Theresa Kline, ³ Allison Deal, ⁴ Anqi Zhu, ⁵ Jordan Miller, ⁶ Margo Sketch, ⁶

	¹ Pharmacist, Durham, NC, United States, ² University of North Carolina, Chapel Hill, NC, United States, ³ UNC Hospitals, Chapel Hill, NC, United States, ⁴ UNC Lineberger Cancer Center, United States, ⁵ UNC Gillings School of Global Public Health, United States, ⁶ UNC Hospitals, United States
2038	UK CLL Forum 5 year update on 315 relapsed refractory CLL patients treated with ibrutinib in 66 UK and Ireland centres
	UK CLL Forum (Primary Presenter), UK CLL Forum, United Kingdom
2039	UKCLL Forum analysis of patient outcomes post-ibrutinib therapy for relapsed / refractory CLL UK CLL Forum
	UK CLL Forum (Primary Presenter), UK CLL Forum, United Kingdom
2040	UK CLL Forum analysis of CLL patients treated with ibrutinib at first relapse
	UK CLL Forum (Primary Presenter), UK CLL Forum, United Kingdom
2041	Ibrutinib improves survival for relapsed or refractory chronic lymphocytic leukemia (CLL) after first-line chemoimmunotherapy: population-based outcomes from 677 patients treated in British Columbia (BC)
	Alina S. Gerrie (Primary Presenter), ¹ Elysha VanderVeer, ² Steven Huang, ³ Lauren Lee, ⁴ Helene Bruyere, ⁵ Tanya Gillan, ⁶ Charles Li, ² Khaled Ramadan, ⁷ Diego Villa, ⁸ David Scott, ⁸ Joseph M. Connors, ⁹ Laurie Sehn, ⁹ Cynthia Toze, ¹⁰ , ¹ BC Cancer Centre for Lymphoid Cancer, Leukemia/BMT Program of BC, VANCOUVER, British Columbia (BC), Canada, ² University of British Columbia, Vancouver, BC, Canada, ³ Leukemia/BMT Program of BC, Canada, ⁴ Surrey Memorial Hospital, BC Cancer, Canada, ⁵ Cytogenetics Laboratory, Vancouver General Hospital, Canada, ⁶ Memorial University, Canada, ⁷ St. Paul's Hospital, Canada, ⁸ BC Cancer Centre for Lymphoid Cancer, Vancouver, BC, Canada, ⁹ BC Cancer Centre for Lymphoid Cancer, Canada, ¹⁰ Leukemia/BMT Program of BC, Vancouver, British Columbia, Canada
2042	Enhanced expression of Siglec-7 ligand in chronic B lymphocytic leukemia may help leukemic cells evade natural killer cell-mediated cytotoxicity
	Lan-Yi Chang, ¹ Shao-Chia Lu, ¹ Kuo-I Lin, ² Shang-Ju Wu, ³ Takashi Angata (Primary Presenter), ¹ , ¹ Academia Sinica, Taipei, Taiwan, ² Genomics Research Center/Academia Sinica, Taipei, Taiwan, ³ National Taiwan University Hospital, Taipei, Taiwan
2043	KAP1 phosphorylation at serine 473 promotes cell cycle progression in B-CLL cells
	Jung-Lin Wu, ¹ Shang-Ju Wu, ² Takashi Angata, ¹ Kuo-I Lin (Primary Presenter), ³ , ¹ Academia Sinica, Taipei, Taiwan, ² National Taiwan University Hospital, Taipei, Taiwan, ³ Genomics Research Center/Academia Sinica, Taipei, Taiwan

2044	Real-life retrospective comparison of chlorambucil plus anti-CD20 antibody versus ibrutinib alone as frontline treatment for unfit CLL/SLL
	<p>Javier Loscertales (Primary Presenter),¹ Julio Delgado,² Ana Carla Oliveira,³ Lucía Martín Rodríguez,⁴ Christelle Ferra Coll,⁵ Angel Ramírez-Payer,⁶ José-Ángel Hernández,⁷ María-Jesús VIDAL MANCENIDO,⁸ Ana Muntanola Prat,⁹ Abelardo Barez García,¹⁰ María Angeles Medina Perez,¹¹ Araceli Rubio-Martínez,¹² Rosa Collado,¹³ Mari Carmen Mas-Ochoa,¹⁴ Martín Mascaró Riera,¹⁵ Almudena Navarro PILAR ROMERO FERNANDEZ Ancor Sanz-García Francesc Bosch, ¹Hematology Department, Hospital Universitario La Princesa, IIS-IP, Madrid, Spain, ²Secció d'Hematopatologia, Hospital Clínic, Institut d'Investigacions Biomèdiques Augustí Pi i Sunyer (IDIBAPS), Universitat de Barcelona, Barcelona, Spain, Barcelona, Spain, ³ICO - Hospital Duran i Reynals, IDIBELL, Grupo de Referentes de LLC del ICO, Hospitalet - Barcelona, Spain, ⁴Hospital Vall d'Hebron Barcelona, Salamanca, Spain, ⁵ICO - Hospital German Trias i Pujol, Badalona, Spain, ⁶Hospital Universitario Central de Asturias, Oviedo, Oviedo, Spain, ⁷Hospital Universitario Infanta Leonor, Madrid, Spain, ⁸Hospital Universitario de León, LEON, Spain, ⁹Hospital Universitari Mutua Terrassa, Madrid, Spain, ¹⁰HOSP. NUESTRA SEÑORA DE SONSOLES, MADRID, Spain, ¹¹Hospital Costa del Sol, Marbella, Spain, ¹²Hospital Universitario Miguel Servet, Zaragoza, Zaragoza, Spain, ¹³Servicio de Hematología, Consorcio Hospital General Universitario, Valencia, Spain, Valencia, Spain, ¹⁴Hospital Arnau-Liria, Valencia, Valencia, Spain, ¹⁵Fund. Hosp. Son Llatzer, Madrid, Spain IBSAL-Hospital Universitario de Salamanca, Salamanca, Salamanca, Spain HOSP. UNIVERSITARIO DONOSTIA NUESTRA SEÑORA DE ARANZAZU, SAN SEBASTIAN, Spain Unidad de Análisis de Datos, Hospital Universitario La Princesa, IIS-IP, Madrid, Spain Vall d'Hebron Institute of Oncology, Barcelona, Spain</p>
2047	Ibrutinib therapy downregulates AID enzyme and proliferative fractions in chronic lymphocytic leukemia
	<p>Pablo Morande (Primary Presenter),¹ Mariela Sivina,² Angimar Uriepero,³ Noé Seija,⁴ Catalina Berca,⁵ Pablo Fresia,⁶ Ana Ines Landoni,⁷ Javier Di Noia,⁸ Jan A. Burger,⁹ Pablo Oppezzo,¹⁰ ¹INIGEM (CONICET-Universidad de Buenos Aires) Facultad de Farmacia y Bioquímica-Hospital de Clínicas, Ciudad Autónoma de Buenos Aires, Argentina, ²MD Anderson Cancer Center, Houston, TX, United States, ³Institut Pasteur de Montevideo, Research Laboratory on Chronic Lymphocytic Leukemia., Montevideo, Uruguay, ⁴Institut Pasteur of Montevideo, Montevideo, Uruguay, ⁵Institut Pasteur de Montevideo, Research Laboratory on Chronic Lymphocytic Leukemia, Montevideo, Uruguay, ⁶Instituto Pasteur de Montevideo, Uruguay, ⁷Hospital maciel, Montevideo, Uruguay, ⁸Institut de Recherches Cliniques de Montréal, Division of Immunity and Viral Infections, Montréal, H2W 1R7, Québec, Canada. and Department of Medicine, Université de Montréal., Canada, ⁹University of Texas, MD Anderson Cancer Center, Houston, Texas, United States, ¹⁰Institute Pasteur de Montevideo, Research Laboratory on Chronic Lymphocytic Leukemia, Montevideo, Uruguay</p>

2048	Alternative strategies to treat ibrutinib-resistant CLL by targeting HSP70/HSF1 pathways
	Federica Frezzato (Primary Presenter), ¹ ANDREA VISENTIN, ² Marla Bragagnolo, ³ Filippo Severin, ⁴ Serena Pizzo, ¹ Carlotta Lista, ¹ Monica Facco, ⁴ Francesco Piazza, ⁴ Gianpietro Semenzato, ⁴ Livio Trentin, ¹ , ¹ University of Padova, Padova, Italy, ² University of Padua, PADOVA, Italy, ³ University of Padova, Italy, ⁴ University of Padua, Padua, Italy
2049	Analyzing the mutational landscape of two CLL mouse models overexpressing AID identifies proliferative fraction-associated tumor genes involved in leukemic development and progression
	Pablo Morande (Primary Presenter), ¹ Xiao-Jie Yan, ² Julieta Sepulveda, ³ Noé Seija, ⁴ Martina Crispo, ⁵ Natalia Rego, ⁶ Davide Robbiani, ⁷ Michel C. Nussenzweig, ⁸ Shih-Shih Chen, ⁹ Florencia Palacios, ⁹ Alejandro Buschiazzi, ¹⁰ Javier Di Noia, ¹¹ Marcelo Navarrete, ³ Nicholas Chiorazzi, ⁹ Pablo Oppezzo, ¹² , ¹ INIGEM (CONICET-Universidad de Buenos Aires) Facultad de Farmacia y Bioquímica-Hospital de Clínicas, Ciudad Autónoma de Buenos Aires, Argentina, ² Feinstein Institute for Medical Research, Manhasset, NY, United States, ³ Universidad de Magallanes, Punta Arenas, Chile, ⁴ Institut Pasteur of Montevideo, Montevideo, Uruguay, ⁵ Institute Pasteur de Montevideo, Transgenic and Experimental Animal Unit., Montevideo, Uruguay, ⁶ Institute Pasteur de Montevideo, Bioinformatic Unit., Montevideo, Uruguay, ⁷ Howard Hughes Medical Institute. The Rockefeller University, New York, United States, ⁸ Howard Hughes Medical Institute. The Rockefeller University, United States, ⁹ The Feinstein Institute for Medical Research, Manhasset, New York, United States, ¹⁰ Laboratory of Molecular & Structural Microbiology. Institut Pasteur de Montevideo., Montevideo, Uruguay, ¹¹ Institut de Recherches Cliniques de Montréal, Division of Immunity and Viral Infections, Montréal, H2W 1R7, Québec, Canada. and Department of Medicine, Université de Montréal., Canada, ¹² Institute Pasteur de Montevideo, Research Laboratory on Chronic Lymphocytic Leukemia, Montevideo, Uruguay
2050	MicroRNAome analysis of unmutated and progressive CLL patients identify a set of microRNAs associated with TGF-β pathway impairment during disease progression
	Maria Elena Marquez (Primary Presenter), ¹ Sandra Sernbo, ² Catalina Berca, ³ Angimar Uriepero, ⁴ Cecilia Guillermo, ⁵ Maria Victoria Irigoien, ⁶ Gimena Dos Santos, ⁷ Victoria Remedi, ⁸ Ana Ines Landoni, ⁹ Raul Gabus, ¹⁰ Pablo Oppezzo, ¹¹ , ¹ Institut Pasteur de Montevideo, Research Laboratory on Chronic Lymphocytic Leukemia. Instituto Venezolano de Investigaciones Científicas, Centro de Medicina Experimental., Montevideo, Uruguay, ² Institute Pasteur de Montevideo, Research Laboratory on Chronic Lymphocytic Leukemia, Saxtorp, Sweden, ³ Institut Pasteur de Montevideo, Research Laboratory on Chronic Lymphocytic Leukemia, Montevideo, Uruguay, ⁴ Institut Pasteur de Montevideo, Research Laboratory on Chronic Lymphocytic Leukemia., Montevideo, Uruguay, ⁵ Hematology Department, Hospital de Clinicas, Montevideo, Uruguay,

	⁶ Hospital de Clinicas, Montevideo, Uruguay, ⁷ Hospital de Clínicas, Cátedra de Hematología, Montevideo, Uruguay, ⁸ Hospital Maciel, ASSE, Montevideo, Uruguay, ⁹ Hospital maciel, Montevideo, Uruguay, ¹⁰ Hospital Maciel, ASSE, San Diego, California, United States, ¹¹ Institute Pasteur de Montevideo, Research Laboratory on Chronic Lymphocytic Leukemia, Montevideo, Uruguay
2051	Prognostic impact of common chronic lymphocytic leukemia stereotyped subsets: analysis within prospective clinical trials of the German CLL Study Group (GCLLSG)
	Sonia Jaramillo Segura (Primary Presenter), ¹ Andreas Agathangelidis, ² Christof Schneider, ¹ Jasmin Bahlo, ³ Sandra Robrecht, ³ Eugen Tausch, ¹ Johannes Bloehdorn, ⁴ Manuela Hoehstetter, ⁵ Kirsten Fischer, ⁶ Barbara Eichhorst, ³ Valentin Goede, ⁷ Michael Hallek, ⁸ Hartmut Döhner, ⁹ Richard Rosenquist Brandell, ¹⁰ Paolo Ghia, ¹¹ KOSTAS STAMATOPOULOS, ¹² Stephan Stilgenbauer, ¹ ¹ University of Ulm, Ulm, Germany, ² CERTH, Thessaloniki, Greece, ³ University Hospital of Cologne, Cologne, Germany, ⁴ Internal Medicine III, University Hospital Ulm, Ulm, Germany, ⁵ Muenchen Klinik Schwabing, Munich, Germany, ⁶ University Hospital of Cologne - German CLL Study Group, Cologne, Germany, ⁷ St. Marien Hospital, Cologne, Germany, ⁸ University of Cologne, Faculty of Medicine and University Hospital of Cologne, Department 1 of Internal Medicine and German CLL Study Group, Cologne, Germany, ⁹ Medical Department 3, Ulm, Germany, ¹⁰ Karolinska Institutet, Stockholm, Sweden, ¹¹ Università Vita-Salute San Raffaele and IRCCS Ospedale San Raffaele, Milan, Italy, ¹² Institute of Applied Biosciences, Thessaloniki, Greece
2053	The effect of ibrutinib on release of extracellular vesicles in CLL
	Ganchimeg Ishdorj (Primary Presenter), ¹ James Johnston, ² Spencer Gibson, ² ¹ CancerCare Manitoba, Winnipeg, Manitoba, Canada, ² Research Institute in Oncology and Hematology, Winnipeg, Manitoba, Canada
2054	Role of complex karyotype (CK) in patients with chronic lymphocytic leukemia (CLL): A systematic review and meta-analysis.
	Irbaz Bin Riaz (Primary Presenter), ¹ Mahnoor Islam, ² Warda Faridi, ³ Daniel Van Dyke, ⁴ Larry Prokop, ⁵ Zhen Wang, ⁵ Timothy Call, ⁶ Saad Kenderian, ⁶ Neil Kay, ⁶ Mohammad Hassan Murad, ⁵ Sameer Parikh, ⁶ Wei Ding, ⁶ ¹ Mayo Clinic, Rochester, Rochester, Minnesota, United States, ² Dow University of Health Sciences, Karachi, Pakistan, ³ University of Arizona, Tucson, United States, ⁴ Mayo Clinic, Rochester, MN, United States, ⁵ Mayo Clinic, United States, ⁶ Mayo Clinic, Rochester, Minnesota, United States
2055	Patterns of CD180 expression and function in the peripheral blood and lymph nodes of patients with chronic lymphocytic leukaemia (CLL)
	Nina Porakishvili (Primary Presenter), ¹ Sergey Krysov, ² Emanuela Volpi, ¹ Uzma Sayed, ³ Kristina Zaitseva, ¹ Ketki Vispute, ⁴ Tamar Tsertsvadze, ⁵ Ani Bilanishvili, ⁶ Nunu Mitskevich, ⁶ Amit Nathwani, ⁷ Nicholas Chiorazzi, ⁸ Peter Lydyard, ⁹ ¹ University of Westminster, London, United Kingdom, ² Barts Cancer

	Institute, Queen Mary University of London, London, United Kingdom, ³ University of Westminster, Camberley, United Kingdom, ⁴ University College London, London, United Kingdom, ⁵ Iv. Javakhishvili Tbilisi State University, Tbilisi, Georgia, ⁶ Ivane Javakhishvili Tbilisi State University, Tbilisi, Georgia, ⁷ University College Hospital, London, United Kingdom, ⁸ The Feinstein Institute for Medical Research, Manhasset, New York, United States, ⁹ University of Westminster, Orpington, United Kingdom
2057	Poor prognosis CLL express activated focal adhesion kinase (FAK) that is correlated to cytoskeletal-connected molecules
	Serena Pizzo (Primary Presenter), ¹ Federica Frezzato, ¹ Filippo Severin, ² ANDREA VISENTIN, ³ Carlotta Lista, ¹ Marla Bragagnolo, ⁴ Monica Facco, ² Gianpietro Semenzato, ² Livio Trentin, ¹ ¹ University of Padova, Padova, Italy, ² University of Padua, Padua, Italy, ³ University of Padua, PADOVA, Italy, ⁴ University of Padova, Italy
2058	High-throughput sequencing for the identification of NOTCH1 mutations in early-stage chronic lymphocytic leukemia: biological and clinical implications
	Sonia Fabris (Primary Presenter), ¹ Marta Lionetti, ² Giovanna Cutrona, ³ Monica Colombo, ⁴ Martina Cardillo, ⁵ Gabriella Ciceri, ² Marzia Barbieri, ⁶ Valeria Spina, ⁷ Massimo Gentile, ⁸ Gianluigi Reda, ⁹ Luca Baldini, ¹⁰ Franco Fais, ¹¹ Davide Rossi, ¹² Gianluca Gaidano, ¹³ Manlio Ferrarini, ¹¹ Antonino Neri, ¹⁴ Fortunato Morabito, ¹⁵ ¹ Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milano, Italy, ² Department of Oncology and hemato-oncology, University of Milan, Milan, Italy, ³ IRCCS Ospedale Policlinico San Martino, Genoa, Italy, ⁴ IRCCS Ospedale Policlinico SanMartino, Genova, Italy, ⁵ DIMES, University of Genoa, Genoa, Italy, ⁶ Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Italy, ⁷ Experimental Hematology, Institute of Oncology Research, Bellinzona, Switzerland, Bellinzona, Switzerland, ⁸ Azienda Ospedaliera di Cosenza, Cosenza, Italy, ⁹ IRCCS FONDAZIONE CA GRANDA, Milano, Italy, ¹⁰ Universita' Studi Milano, MILANO, Italy, ¹¹ University of Genoa, Genova, Italy, ¹² Oncology Institute of Southern Switzerland, Bellinzona, Switzerland, ¹³ University of Eastern Piedmont, Novara, Italy, ¹⁴ Ospedale Maggiore Policlinico, Milan, Italy, Milano, Italy, ¹⁵ Augusta Victoria Hospital, Reggio Calabria, Italy
2059	A novel image-based approach to assess changes to the cytoskeleton and cellular interactions of CLL lymphocytes during treatment with signal inhibitor drugs
	Frances Friend (Primary Presenter), ¹ Charlotte Crutchlow, ² Simon Rule, ³ Claire Hutchinson, ⁴ ¹ University of Plymouth, Plymouth, United Kingdom, ² University of Plymouth, Brixham, United Kingdom, ³ Department of Haematology, Derriford Hospital, Plymouth, United Kingdom, ⁴ University Hospitals Plymouth NHS Trust, Plymouth, United Kingdom

2061	Activated partial thromboplastin time (APTT) and D-dimer (DD) are strong prognostic factors in chronic lymphocytic leukemia: a clinical analysis of 329 cases
	XU WEI (Primary Presenter), ¹ Li Wang Lei Fan, ² Jian-Yong Li, ¹ the First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital, NANJING, China, ² Jiangsu Province Hospital, China
2062	Distinct immune signatures in chronic lymphocytic leukemia and Richter syndrome
	Yucui Wang (Primary Presenter), ¹ Sutapa Sinha, ² Charla Secreto, ³ Karen Rech, ² Timothy Call, ² Sameer Parikh, ² Daniel Van Dyke, ¹ Jose Leis, ⁴ Saad Kenderian, ² Amber Koehler, ² Susan Slager, ² Haidong Dong, ⁵ Stephen Ansell, ¹ Neil Kay, ² Rong He, ¹ Wei Ding, ² , ¹ Mayo Clinic, Rochester, MN, United States, ² Mayo Clinic, Rochester, Minnesota, United States, ³ Mayo Clinic, Rochester, MN, United States, ⁴ Mayo Clinic, Phoenix, Arizona, United States, ⁵ Mayo Clinic, Rochester, United States
2067	Trisomy 12 worsens the outcome of early-stage CLL patients with mutated IGHV genes and 11q deletion of the patients with unmutated IGHV genes
	Isabel González-Gascón y Marín, ¹ Íñigo Figueroa, ² Carolina Muñoz, ¹ María Stefania Infante, ¹ Maria Ángeles Foncillas, ¹ Karen Marín, ¹ Juan Churruca, ² MARIA HERNANDEZ SANCHEZ, ³ Ana Eugenia Rodríguez-Vicente, ⁴ Marcos González Díaz, ⁵ Jesus Maria Hernandez Rivas, ⁶ JOSE-ANGEL HERNANDEZ-RIVAS (Primary Presenter), ¹ Hospital Universitario Infanta Leonor, Madrid, Spain, ² Hospital Universitario Infanta Leonor, Spain, ³ CANCER RESEARCH CENTER, SALAMANCA, Spain, ⁴ Hospital Universitario de Salamanca, Salamanca, Spain, ⁵ University Hospital, IBSAL-Salamanca, Centro de Investigación del Cáncer and CIBERONC, University of Salamanca, Salamanca, Spain, ⁶ H. Clinico U. Salamanca, Salamanca, Spain
2069	Ibrutinib plus obinutuzumab versus chlorambucil plus obinutuzumab as first-line treatment in patients with chronic lymphocytic leukemia or small lymphocytic lymphoma: up to 4 years of extended follow-up from phase 3 iLLUMINATE
	Carol Moreno (Primary Presenter), ¹ Richard Greil, ² FATIH DEMIRKAN, ³ Alessandra Tedeschi, ⁴ Bertrand Anz, ⁵ Ioree Iarratt, ⁶ Martin Šimkovič, ⁷ Jan Novák, ⁸ Vladimír Strugov, ⁹ Devinder Gill, ¹⁰ John Gribben, ¹¹ Emily Hsu, ¹² Kevin Kwei, ¹³ Cathy Zhou, ¹⁴ Lori Styles, ¹⁵ Ian Flinn, ¹ Hospital de la Santa Creu i Sant Pau, Barcelona, Spain, ² Laboratory for Immunological and Molecular Cancer Research (LIMCR), Salzburg, Austria, ³ Dokuz Eylül University, Izmir, Turkey, ⁴ Niguarda Cancer Center, Milano, Italy, ⁵ Tennessee Oncology, Chattanooga, TN, United States, ⁶ univ of alberta, EDMONTON, Alberta, Canada, ⁷ Martin Šimkovič, Hradec Kralove, Czech Republic, ⁸ University Hospital Kralovske Vinohrady, Praha 10, Czech Republic, ⁹ Almazov National Medical Research Centre, Saint Petersburg, Russian Federation, ¹⁰ Princess Alexandra Hospital, Brisbane, Australia, ¹¹ Barts Cancer Institute, London, United Kingdom, ¹² Pharmacocyclics LLC, an AbbVie Company, Sunnyvale,

	California, United States, ¹³ AbbVie, Mountain View, CA, United States, ¹⁴ Pharmacyclics LLC, an Abbvie Company, Sunnyvale, CA, United States, ¹⁵ Pharmacyclics, Sunnyvale, California, United States Sarah Cannon Research Institute, Tennessee Oncology, Nashville, TN, United States
2070	Cost-effectiveness of a 24-month fixed duration of venetoclax in combination with rituximab in relapsed/refractory chronic lymphocytic leukemia
	Craig Bennison, ¹ Nicholas Durno, ² Kavita Sail, ³ Dimitra Alexiou, ⁴ Anthony Mato, ⁵ Toby Eyre, ⁶ George Follows (Primary Presenter), ⁷ ¹ Pharmerit Ltd, York, United Kingdom, ² Pharmerit International, York, United Kingdom, ³ AbbVie Inc., Vernon Hills, Illinois, United States, ⁴ AbbVie Inc., Athens, Greece, ⁵ Memorial Sloan Kettering Cancer Center, New York, New York, United States, ⁶ Oxford University Hospitals NHS Trust, Oxford, United Kingdom, ⁷ Cambridge University Hospitals NHS Foundation Trust, Cambridge, United Kingdom
2071	Chronic lymphocytic leukaemia/small lymphocytic lymphoma (CLL/SLL) treatment with rituximab and high-dose methylprednisolone revisited
	Ana Vagos Mata (Primary Presenter), ¹ Eduardo Espada, ² Daniela Pereira Alves, ³ Fabiola Velosa, ⁴ Blanca Polo, ¹ Maria João Costa, ⁵ Conceição Lopes, ⁵ João Forjaz Lacerda, ² JOAO CARLOS RAPOSO, ⁶ ¹ Department of Hematology and Bone Marrow Transplant, Centro Hospitalar Universitário Lisboa Norte, Lisbon, Portugal, ² Department of Hematology and Bone Marrow Transplant, Centro Hospitalar Universitário Lisboa Norte, Lisboa, Portugal, ³ Chl Norte- Sta Maria, Lisbon, Portugal, ⁴ Department of Hematology and Bone Marrow Transplant, Centro Hospitalar Universitário Lisboa Norte, Funchal, Portugal, ⁵ Department of Hematology and Bone Marrow Transplant, Centro Hospitalar Universitário Lisboa Norte, Portugal, ⁶ CHL NORTE - STA MARIA, Lisboa, Portugal
2072	Clinical utility of chromosome genomic array testing in assessing TP53 abnormalities in CLL
	Min Fang (Primary Presenter), ¹ Xiaoyu Qu, ² Lorinda Soma, ³ Scott McElhone Sirin Khajavian, ⁴ Ryan Lynch, ⁵ Stephen Smith, ³ Brian Till, ⁶ Chaitra Ujjani, ⁷ Ajay Gopal, ⁵ Mazyar Shadman, ⁸ ¹ Fred Hutchinson Cancer Research Center, University of Washington, Seattle, WA, United States, ² Seattle cancer Care Alliance, Seattle, WA, United States, ³ University of Washington, United States, ⁴ Fred Hutchinson Cancer Research Center, LYNNWOOD, WA, United States, ⁵ University of Washington, Seattle, WA, United States, ⁶ Fred Hutchinson Cancer Research Center, United States, ⁷ Seattle Cancer Care Alliance/ Fred Hutchinson Cancer Research Center, Seattle, Washington, United States, ⁸ Fred Hutchinson Cancer Research Center, Seattle, WA, United States
2073	The impact of age on survival in CLL patients receiving ibrutinib as initial therapy
	Chaitra Ujjani (Primary Presenter), ¹ Anthony Mato, ² Brian Hill, ³ John Allan, ⁴ Erick Lansigan, ⁵ Alan Skarbnik, ⁶ Ryan Jacobs, ⁷ Meghan Thompson, ⁸ Jakub Svoboda, ⁹ Hande H. Tuncer, ¹⁰ John Pagel, ¹¹ Danielle Brander, ¹² Bruce D.

	<p>Cheson,¹³ Paul Barr,¹⁴ Clive S. Zent,¹⁵ Joanna Rhodes Lindsey Roeker Jeffrey Pu Sasanka Handunnetti Chadi Nabhan Nirav Shah Andre Goy Peter Pickens Steven Schuster,⁹ Nicole Lamanna Alison Sehgal Constantine Tam Mazyar Shadman, ¹Seattle Cancer Care Alliance/ Fred Hutchinson Cancer Research Center, Seattle, Washington, United States, ²Memorial Sloan Kettering Cancer Center, New York, New York, United States, ³Cleveland Clinic, Cleveland, OH, United States, ⁴Weill Cornell Medicine, New York, New York, United States, ⁵Dartmouth-Hitchcock Medical Center, Lebanon, New Hampshire, United States, ⁶Novant Health, Charlotte, NC, United States, ⁷Carolinas HealthCare Institute- Levine Cancer Institute, Charlotte, North Carolina, United States, ⁸Hospital of the University of Pennsylvania, Philadelphia, Pennsylvania, United States, ⁹Abramson Cancer Center, University of Pennsylvania, Philadelphia, PA, United States, ¹⁰The Cancer Center at Lowell General Hospital, Lowell, Massachusetts, United States, ¹¹Swedish Cancer Institute Hematologic Malignancies Program, Seattle, Washington, United States, ¹²Duke University, Durham, North Carolina, United States, ¹³Georgetown University Hospital, Washington, DC, United States, ¹⁴University of Rochester, Rochester, NY, United States, ¹⁵University of Rochester Medical Center, Rochester, NY, United StatesNorthwell Health, Lake Success, NY, United StatesMemorial Sloan-Kettering Cancer Center, New York, NY, United StatesSUNY Upstate Medical University, Syracuse, New York, United StatesClinical Hematology Department, Peter MacCallum Cancer Centre and Royal Melbourne Hospital, Melbourne, Australia; University of Melbourne, Melbourne Australia, Melbourne, AustraliaAptitude Health, Deerfield, IL, United StatesMedical College of Wisconsin, Milwaukee, WI, United StatesJohn Theurer Cancer Center, Hackensack University Medical Center, United StatesAbington Jefferson Health, Abington, PA, United StatesColumbia University Medical Center, New York, New York, United StatesUniversity of Pittsburgh Medical Center, Pittsburgh, PA, United StatesPeter MacCallum Cancer Centre and St. Vincent's Hospital, East Melbourne, AustraliaFred Hutchinson Cancer Research Center, Seattle, WA, United States</p>
2075	<p>Mechanism study of a novel circRNA as an anti-oncogene in chronic lymphocytic leukemia</p>
	<p>Hui Jin (Primary Presenter),¹ Zijuan Wu,² Wei Wu,³ Yi Xia,³ Shu-Chao Qin,³ Jia-Zhu Wu,³ Jin-Hua Liang,³ Li Wang,³ Lei Fan,³ Hua-Yuan Zhu,³ Jian-Xin Fu,⁴ XU WEI Jian-Yong Li,³, ¹The First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital, Nanjing, China, ²Department of Hematology, The First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital, Nanjing, 210029, China, Nanjing, China, ³the First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital, Nanjing, China, ⁴The first affiliated hospital of Nanjing medical university, China</p>
2076	<p>Immunoglobulin rearrangements in Chinese patients with chronic lymphocytic leukemia: high proportion of mutated IGHV and distinctive gene usage pattern</p>

	<p>Yi Xia (Primary Presenter),¹ Jun Wang,² Shuhua Yi,³ Chun Qiao,⁴ Yani Lin,⁵ Yuting Yan,⁶ Zhen Yu,⁷ Hua-Yuan Zhu,¹ Qinghua Li,² Qi Sun,² Zengjun Li,³ Wei Xu,¹ Lugui Qiu,³ Kun Ru,² JIANYONG LI,⁸, ¹the First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital, Nanjing, China, ²Department of Pathology, Institute of Hematology and Blood Diseases Hospital, China Academy of Medical Sciences, Tianjin, China, ³Institute of Hematology and Blood Disease Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Tianjin, China, ⁴the First Affiliated Hospital of Nanjing Medical University, Nanjing, China, ⁵Department of Pathology, Institute of Hematology and Blood Diseases Hospital, China Academy of Medical Sciences, Tianjin, China, ⁶Institute of Hematology & Blood Diseases Hospital, Chinese Academy of Medical Science & Peking Union Medical College, Tianjin, China, ⁷Institute of Hematology and Blood Disease Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Tianjin, China, ⁸Jiangsu Provincial People's Hospital, Nanjing, China</p>
2080	<p>Clinical and biological characteristics of IGHV3-21 chronic lymphocytic leukemia in Chinese patients: a single-center retrospective study</p>
	<p>Ke Shi,¹ Yi Miao,² Li Wang,³ Hua-Yuan Zhu,³ Lei Fan,³ Wei Xu,³ Jian-Yong Li,³ Yi Xia (Primary Presenter),³, ¹the First Affiliated Hospital of Nanjing Medical University, China, ²the First Affiliated Hospital of Nanjing Medical University, Nanjing, China, ³the First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital, Nanjing, China</p>
2081	<p>Evaluation of the cytotoxic effect of selinexor in combination with chemotherapy or idelalisib towards primary CLL cells</p>
	<p>Candida Vitale (Primary Presenter),¹ Maria Todaro,² Valentina Griggio,³ Chiara Salvetti,² Chiara Riganti,⁴ Yosef Landesman,⁵ Mario Boccadoro,⁶ Marta Coscia,¹Division of Hematology, A.O.U. Città della Salute e della Scienza di Torino; and Department of Molecular Biotechnology and Health Sciences, University of Torino, Torino, Italy, ²University of Torino, Italy, ³Department of Molecular Biotechnology and Health Sciences, University of Torino, Torino, Italy, ⁴Department of Oncology - University of Torino, Torino, Italy, ⁵Karyopharm Therapeutics Inc, United States, ⁶University of Torino, Torino, Italy</p>
2082	<p>Impact of Individual Comorbidities on Mortality and Causes of Death in Chronic Lymphocytic Leukemia</p>
	<p>Emelie Curovic Rotbain (Primary Presenter),¹ Klaus Rostgaard,² Caspar da Cunha-Bang,³ Carsten Utoft Niemann,⁴ Henrik Hjalgrim,² Henrik Frederiksen,⁵, ¹Odense University Hospital, Odense, Denmark, ²Statens Serum Institut, Copenhagen, Denmark, ³Rigshospitalet, Holte, Denmark, ⁴Rigshospitalet, Copenhagen University Hospital, Copenhagen, Denmark, ⁵Odense University Hospital, Copenhagen, Denmark</p>
2083	<p>Gene expression and cytokine analyses identify markers of progression from MBL to CLL</p>

	<p>Gonzalo Blanco (Primary Presenter),¹ Anna Puiggros,² Barbara Sherry,³ Lara Nonell,⁴ Eulàlia Puigdecenet,⁵ Pui Yan (Paulina) Chiu,³ Yasmine Kieso - Chelico,⁶ Gerardo Ferrer,³ Magdalena Arnal,⁵ María Rodríguez-Rivera,⁷ Eva Gimeno,⁸ Eugènia Abella Kanti Rai,⁹ Pablo Abrisqueta Costa,¹⁰ Xavier Calvo Francesc Bosch,¹¹ Ana Ferrer Nicholas Chiorazzi,³ Blanca Espinet,¹² ¹Institut Hospital del Mar d'Investigacions Mèdiques (IMIM) - Hospital del Mar (Barcelona), Barcelona, Spain, ²Fundació IMIM-Hospital del Mar, Barcelona, Spain, ³The Feinstein Institute for Medical Research, Manhasset, New York, United States, ⁴IMIM, Barcelona, Spain, ⁵MARGenomics, IMIM (Barcelona), Barcelona, Spain, ⁶The Feinstein Institute for Medical Research, Northwell Health System, Manhasset, New York, United States, ⁷FUNDACIO IMIM - Hospital del Mar, Barcelona, Spain, ⁸Hospital del Mar, barcelona, Spain, ⁹The Feinstein Institute for Medical Research/Hofstra Northwell School of Medicine/North Shore University Hospital and Long Island Jewish Medical Center, Northwell Health, New Hyde Park, New York, United States, ¹⁰Vall d'Hebron Institute of Oncology, Madrid, Spain, ¹¹Vall d'Hebron Institute of Oncology, Barcelona, Spain, ¹²Institut Hospital del Mar d'Investigacions Mèdiques (IMIM)-Hospital del Mar, Barcelona, Spain</p>
2084	<p>Molecular analysis of FcγRIIb-BCR colligation signaling in primary CLL B lymphocytes</p>
	<p>Alba Mora (Primary Presenter),¹ Rosa Bosch,² Carolina Cuellar,³ Gerardo Ferrer,⁴ Sergey Gorlatov,⁵ Josep Nomdedeu,⁶ Jorge Sierra,⁶ Kanti Rai,⁷ Nicholas Chiorazzi,⁴ Carol Moreno,⁸ ¹Laboratory of Oncology/ Hematology and Transplantation, Barcelona, Spain, ²Laboratory of Oncology/Hematology and Transplantation, Barcelona, Spain, ³Sant Pau hospital, Barcelona, Spain, ⁴The Feinstein Institute for Medical Research, Manhasset, New York, United States, ⁵MacroGenics, Inc., Rockville, MD, United States, Rockville, mD, United States, ⁶Department of Hematology, Barcelona, Spain, ⁷The Feinstein Institute for Medical Research/Hofstra Northwell School of Medicine/North Shore University Hospital and Long Island Jewish Medical Center, Northwell Health, New Hyde Park, New York, United States, ⁸Hospital de la Santa Creu i Sant Pau, Barcelona, Spain</p>
2085	<p>Epigenetic landscape of ATM-deficient CLL unravels new targetable dependency pathways</p>
	<p>Sael Alatawi (Primary Presenter),¹ Ceri Oldreive,² Sophie Kellaway,¹ Constanze Bonifer,¹ Tatjana Stankovic,³ ¹University of Birmingham, Birmingham, United Kingdom, ²University of Birmingham, UK, Birmingham, United Kingdom, ³Institute for Cancer and Genomic Sciences, University of Birmingham, UK, Birmingham, United Kingdom</p>
2089	<p>Undetectable minimal residual disease should be the goal of venetoclax therapy in relapsed and refractory chronic lymphocytic leukaemia</p>
	<p>Thomas Lew (Primary Presenter),¹ Mary Ann Anderson,² Victor Lin,³ Sasanka Handunnetti,⁴ Neil Came,⁵ david westerman,⁶ Wall Meaghan,⁷ Constantine Tam,⁸ Andrew W. Roberts,⁹ John F. Seymour, ¹The Royal Melbourne Hospital</p>

	and Peter MacCallum Cancer Centre; Walter and Eliza Hall Institute of Medical Research, Parkville, Australia, ² The Royal Melbourne Hospital and Peter MacCallum Cancer Centre Clinician Researcher The Walter and Eliza Hall Institute, Melbourne, Australia, ³ Walter and Eliza Hall Institute of Medical Research, Parkville, Australia, ⁴ Clinical Hematology Department, Peter MacCallum Cancer Centre and Royal Melbourne Hospital, Melbourne, Australia; University of Melbourne, Melbourne Australia, Melbourne, Australia, ⁵ Peter MacCallum Cancer Centre, Melbourne, Australia, Melbourne, Australia, ⁶ Peter MacCallum Cancer Centre, MELBOURNE, Australia, ⁷ Victorian Cancer Cytogenetics Service, Fitzroy., Australia, ⁸ Peter MacCallum Cancer Centre and St. Vincent's Hospital, East Melbourne, Australia, ⁹ Royal Melbourne Hospital and Walter and Eliza Hall Institute of Medical Research, Melbourne, Australia
2090	Meta-analysis estimating the impact on progression-free survival (PFS) after frontline CLL fludarabine-based treatment according to the presence of high-risk biomarkers
	Margarita Fernandez de la Mata (Primary Presenter), ¹ Jose Luis Bello Lopez, ² Adrian Mosquera Orgueira, ³ BEATRIZ RODRÍGUEZ, ⁴ Ramón de Burgos Pol, ⁵ Miguel Angel Casado, ⁵ Jose Climent, ⁶ Rafael Parra Gabilondo, ⁶ Blanca Gros Otero, ⁷ , ¹ HOSPITAL UNIVERSITARIO REINA SOFIA. CÓRDOBA, Córdoba, Spain, ² HOSP. CLINICO UNIVERSITARIO SANTIAGO DE COMPOSTELA, Santiago de Compostela, Spain, ³ HOSP. CLINICO UNIVERSITARIO SANTIAGO DE COMPOSTELA, Madrid, Spain, ⁴ 33301425R, SANTIAGO DE COMPOSTELA, Spain, ⁵ Pharmacoeconomics & Outcomes Research Iberia, Pozuelo de Alarcón, Spain, ⁶ Janssen Spain, Madrid, Spain, ⁷ Janssen EMEA, Madrid, Spain
2091	Flow cytometry analysis identifies increases expression of CD20 and FMC7 in IGHV-mutated CLL and highlights CD49d for refining prognosis in this subgroup of patients
	Gonzalo Blanco (Primary Presenter), ¹ Maria Fabios, ² Silvia Ramos, ³ Joanna Kamaso, ¹ Andrea Llonín, ⁴ Anna Puiggros, ⁵ Leonor Arenillas, ⁶ Rosa Navarro, ⁷ Beatriz Costán, ¹ Marta Salido, ⁶ Eva Gimeno, ⁸ Eugènia Abella Beatriz Bellosillo Ana Ferrer Xavier Calvo Blanca Espinet, ⁹ , ¹ Institut Hospital del Mar d'Investigacions Mèdiques (IMIM) - Hospital del Mar (Barcelona), Barcelona, Spain, ² Institut Hospital del Mar d'Investigacions Mèdiques (IMIM) - Hospital del Mar (Barcelona), Pozoblanco, Spain, ³ Institut Hospital del Mar d'Investigacions Mèdiques (IMIM) - Hospital del Mar, Barcelona, Spain, ⁴ Hospital del Mar/PRBB, Barcelona, Spain, ⁵ Fundació IMIM-Hospital del Mar, Barcelona, Spain, ⁶ Institut Hospital del Mar d'Investigacions Mèdiques (IMIM) - Hospital del Mar (Barcelona), Spain, ⁷ Hospital del Mar (Barcelona), Spain, ⁸ Hospital del Mar, barcelona, Spain, ⁹ Institut Hospital del Mar d'Investigacions Mèdiques (IMIM)-Hospital del Mar, Barcelona, Spain
2092	Deep phenotypic analysis of mutated and unmutated CLL cells by mass cytometry

	Mohammed Jawad (Primary Presenter) Atkinson Sophie Andrew Duckworth Indrani Karpha Jessica Bithell Melanie Oates Nagesh Kalakonda Joseph Slupsky University of Liverpool, Liverpool, United Kingdom
2093	Next-generation sequencing identifies mutations in coding and non-coding regions of IGLL5 and BCL2 in chronic lymphocytic leukemia patients with IGH translocations
	Claudia Pérez-Carretero (Primary Presenter), ¹ MARIA HERNANDEZ SANCHEZ, ² Teresa González, ³ Miguel Quijada-Álamo, ⁴ Marta Martín-Izquierdo, ⁵ Jesús M. Hernandez Sanchez, ⁶ Magdalena Sierra, ⁷ Carlos Aguilar, ⁸ Araceli Rubio-Martinez, ⁹ José R. Díaz Valdés, ¹⁰ José Antonio Queizán, ¹¹ Maria-Jesús VIDAL MANCENIDO, ¹² Manuel Vargas Pabón, ¹³ Alfonso García de Coca, ¹⁴ Sara Alonso, ¹⁵ Julio Dávila José-Ángel Hernández Rocío Benito, ² Ana Eugenia Rodríguez-Vicente Jesús María Hernández, ¹ Universidad de Salamanca, IBSAL, Centro de Investigación del Cáncer, IBMCC-CSIC, Salamanca, Spain, ² CANCER RESEARCH CENTER, SALAMANCA, Spain, ³ Servicio de Hematología, Hospital Universitario de Salamanca, Spain, ⁴ University of Salamanca, SALAMANCA, Spain, ⁵ 1. Universidad de Salamanca, IBSAL, Centro de Investigación del Cáncer, IBMCC-CSIC, Salamanca, Spain, ⁶ Cancer Research of Salamanca, Salamanca, Spain, ⁷ Servicio de Hematología, Hospital Virgen de la Concha, Zamora, Spain, ⁸ Servicio de Hematología, Complejo Hospitalario de Soria, Soria, soria, Spain, ⁹ Hospital Universitario Miguel Servet, Zaragoza, Zaragoza, Spain, ¹⁰ Servicio de Hematología, Hospital General de Segovia, Segovia, Spain, ¹¹ Servicio de Hematología, Hospital General de Segovia, Segovia, Segovia, Spain, ¹² Hospital Universitario de León, LEON, Spain, ¹³ Servicio de Hematología, Hospital Jarrío, Asturias, Spain, ¹⁴ HOSP. CLINICO UNIVERSITARIO VALLADOLID, Madrid, Spain, ¹⁵ Servicio de Hematología, Hospital Universitario Central de Asturias, Oviedo, SpainComplejo Asistencial de Ávila, Ávila, SpainHospital Universitario Infanta Leonor, Madrid, SpainHospital Universitario de Salamanca, Salamanca, Spain
2094	Kinetics of flow cytometry MRD within the venetoclax single-agent named patient scheme in the UK
	Nicolas Martinez-Calle (Primary Presenter), ¹ Deborah Turner, ² Elizabeth Vandenberghe, ³ Toby Eyre, ⁴ Talha Munir, ⁵ Andrew Rawstron, ⁶ Christopher Fox, ⁷ , ¹ Nottingham University Hospitals, Nottingham, United Kingdom, ² Torbay District Hospital, Torquay, United Kingdom, ³ St James Hospital, Dublin, Ireland, ⁴ Oxford University Hospitals NHS Trust, Oxford, United Kingdom, ⁵ St James's University Hospital, Leeds, United Kingdom, ⁶ HMDS, Leeds Teaching Hospitals NHS Trust, Leeds, United Kingdom, ⁷ Nottingham University Hospitals NHS Trust, Nottingham, United Kingdom
2095	Dissecting the role of Toll-like receptors induced Ikbz over-expression in Chronic Lymphocytic Leukemia
	Ilenia Sana (Primary Presenter), ¹ Maria Elena Mantione, ² Simona Vincenza Delvecchio, ³ Ettore Zapparoli Michela Riba, ⁴ Piera Angelillo, ⁵ Lydia Scarfo, ⁶

	Paolo Ghia, ⁷ Marta Muzio, ⁸ ¹ Università Vita Salute San Raffaele, milano, Italy, ² IRCCS Ospedale San Raffaele, milano, Italy, ³ san raffaele scientific institute, milano, Italy, ⁴ Center of Translational Genomics and Bioinformatics, IRCCS Ospedale San Raffaele, milano, Italy, ⁵ Istituto scientifico universitario San Raffaele, Milano, Italy, ⁶ Università Vita-Salute San Raffaele and IRCCS Ospedale San Raffaele, Milano, Italy, ⁷ Università Vita-Salute San Raffaele and IRCCS Ospedale San Raffaele, Milan, Italy, ⁸ San Raffaele Hospital IRCCS, milano, Italy
2096	CD8+ T-cell exhaustion induced by leukemic cells mediates progression in chronic lymphocytic leukemia (CLL)
	Isabel Jiménez (Primary Presenter), ¹ Bárbara Tazón-Vega, ¹ Pau Abrisqueta Juan C. Nieto, ¹ Sabela Bobillo, ² Carles Palacio, ³ Júlia Carabia, ³ Magdalena Munuera, ³ Lluís Puigdefàbregas, ⁴ Genís Parra, ⁵ Anna Esteve, ⁵ Maria Jose Terol Castera, ⁶ Jose A. Marco, ⁷ Marta Crespo Maull Francesc Bosch, ³ ¹ Laboratory of Experimental Hematology, Department of Hematology, Vall d'Hebron Institute of Oncology (VHIO), Vall d'Hebron University Hospital (HUVH), Department of Medicine, Universitat Autònoma de Barcelona, Barcelona, Spain, Barcelona, Spain, ² Hematology, Barcelona, Spain, ³ Vall d'Hebron Institute of Oncology, Barcelona, Spain, ⁴ Laboratory of Experimental Hematology, Department of Hematology, Vall d'Hebron Institute of Oncology (VHIO), Vall d'Hebron University Hospital (HUVH), Department of Medicine, Universitat Autònoma de Barcelona, Barcelona, Spain, Spain, ⁵ Centre Nacional d'Anàlisi Genòmica-Centre de Regulació Genòmica (CNAG-CRG), Parc Científic de Barcelona, Barcelona, Spain, Spain, ⁶ HOSP. CLINICO UNIVERSITARIO VALENCIA, Madrid, Spain, ⁷ Hospital Puerta de Hierro, Majadahonda, Spain
2097	Dual SYK/JAK inhibition and synergy with Bcl-2 family inhibitors
	Lindsay Smith, ¹ K Broadway, ¹ Laura Karydis, ¹ Annabel Minton, ² Lara Superfine, ³ Chris Smith, ⁴ Jonathan Strefford, ¹ Freda Stevenson, ¹ Francesco Forconi, ⁵ Cragg Mark, ⁶ Greg Coffey, ⁷ Pamela Conley, ⁷ Graham Packham, ¹ Andrew Steele (Primary Presenter), ¹ ¹ University of Southampton, Southampton, United Kingdom, ² University of Southampton, United Kingdom, ³ University of Southampton, Harpenden, United Kingdom, ⁴ University of Southampton, Cowplain, United Kingdom, ⁵ Dr, Southampton, United Kingdom, ⁶ University of Southampton,, Southampton, United Kingdom, ⁷ Portola Pharmaceuticals, United States
2099	Mass cytometry analysis of B cell receptor signalling in normal B and chronic lymphocytic leukaemia cells in peripheral blood.
	Faten Yasin (Primary Presenter), ¹ Andrew Duckworth, ¹ Kathleen Till, ¹ Andrew Pettitt, ¹ Ke Lin, ² Nagesh Kalakonda, ¹ Joseph Slupsky, ¹ ¹ University of Liverpool, Liverpool, United Kingdom, ² Royal Liverpool & Broadgreen University Hospitals NHS Trust, Liverpool, United Kingdom
2100	T-cell-produced IL-4 regulates GAB1 expression and BCR signalling in CLL

	<p>Laura Karydis (Primary Presenter),¹ Lindsay Smith,¹ Rachel Dobson,¹ Matthew Blunt,¹ K Broadway,¹ Annabel Minton,² Jonathan Strefford,¹ Freda Stevenson,¹ Francesco Forconi,³ Cragg Mark,⁴ Graham Packham,¹ Andrew Steele,¹, ¹University of Southampton, Southampton, United Kingdom, ²University of Southampton, United Kingdom, ³Dr, Southampton, United Kingdom, ⁴University of Southampton,, Southampton, United Kingdom</p>
2101	<p>Indirect treatment comparison analysis of venetoclax + obinutuzumab with standard frontline regimens for chronic lymphocytic leukemia</p>
	<p>Matthew Davids (Primary Presenter),¹ Scott Huntington,² Carol Moreno,³ George Follows,⁴ Antonio Cuneo,⁵ Kathryn Humphrey,⁶ William Schary,⁷ Kavita Sail,⁸ Yanna Song,⁹ Zhenguo Gao,¹⁰ Zhongwen Tang,¹¹ Robin Foà,¹² Peter Hillmen,¹³, ¹Dana-Farber Cancer Institute, Boston, Massachusetts, United States, ²Yale University, United States, ³Hospital de la Santa Creu i Sant Pau, Barcelona, Spain, ⁴Cambridge University Hospitals NHS Foundation Trust, Cambridge, United Kingdom, ⁵St. Anna University Hospital, Ferrara, Italy, ⁶Roche/Genentech, Welwyn Garden City, United Kingdom, ⁷AbbVie, Inc., N Chicago, IL, United States, ⁸AbbVie Inc., Vernon Hills, Illinois, United States, ⁹AbbVie, Inc., United States, ¹⁰AbbVie, Inc., north chicago, ILLINOIS, United States, ¹¹AbbVie, Inc., Buffalo Grove, IL, United States, ¹²Università La Sapienza, Roma, Italy, Roma, Italy, ¹³The Leeds Teaching Hospitals, St. James University, Leeds, United Kingdom</p>
2102	<p>Targeted therapy in relapsed/refractory CLL: a systematic review and network meta-analysis</p>
	<p>Stefano Molica (Primary Presenter),¹ Diana Giannareli,² Tait Shanafelt,³, ¹Azienda Ospedaliera Pugliese-Ciaccio, Catanzaro, Italy, ²IRCCS Regina Elena/Biostatistic Unit, Rome, Italy, ³Stanford University - School of Medicine, Stanford, CA, United States</p>
2103	<p>Frequency of molecular cytogenetic changes in patients with CLL with indication of treatment in a tertiary center in São Paulo: high incidence of del(17p) in this population</p>
	<p>talita silveira (Primary Presenter),¹ Milena almendra,² Larissa Dulley,² Sergio Fortier Rita de cassia alves,³, ¹Santa Casa Medical School/ Albert Einstein Medical School, Sao Paulo, Brazil, ²Santa Casa Medical School, SAO PAULO, Brazil, ³MD, Brazil</p>
2104	<p>Chronic lymphocytic leukaemia (CLL) with reciprocal chromosomal translocation t(1;6)(p35.3;p25.2) involving IRF4 and RCC1, a rare disease subtype associated with a distinct mutational profile</p>
	<p>Sandrine Jayne (Primary Presenter),¹ Cristina Lopez,² Nathalie Put,³ Bhushan Rai,⁴ Inga Nagel,⁵ Els Lierman,³ Eva Maria Murga Penas,⁵ Matthew Ahearne,⁶ Harriet Walter,⁷ Lucienne Michaux,⁸ Susanne Bens,² Monika Szczepanowski,⁵ Matthias Schlesner,⁹ Iwona Wlodarska,³ Reiner Siebert,² Martin Dyer,¹, ¹University of Leicester, Leicester, United Kingdom, ²University of Ulm, Germany, ³UZ Leuven, Belgium, ⁴1987, Leicester, United Kingdom, ⁵University</p>

	of Kiel, Germany, ⁶ University of Leicester, OAKHAM, United Kingdom, ⁷ University of Leicester, United Kingdom, ⁸ UZ Leuven, Leuven, Belgium, ⁹ German Cancer Research Center (DKFZ), Heidelberg, Germany
2105	Comparative analysis of targeted therapies in relapsed/refractory chronic lymphocytic leukemia (R/R CLL)
	Anthony Mato (Primary Presenter), ¹ Lindsey Roeker, ² Toby Eyre, ³ Chaitra Ujjani, ⁴ Nicole Lamanna, ⁵ Brian Hill, ⁶ Paul Barr, ⁷ Erick Lansigan, ⁸ Bruce D. Cheson, ⁹ Maryam Yazdy, ¹⁰ John Allan, ¹¹ Joanna Rhodes, ¹² Kaitlin Kennard, ¹³ Steven Schuster, ¹² Chadi Nabhan, ¹⁴ Alan Skarbnik, ¹⁵ Andre Goy Colleen Dorsey, ² Julie Goodfriend, ² Catherine Coombs Hande H. Tuncer John Pagel Ryan Jacobs Amy Kirkwood Allison Winter Anna Schuh Neil Bailey Andrea Sitlinger Mazyar Shadman Christopher Fox Danielle Brander, ¹ Memorial Sloan Kettering Cancer Center, New York, New York, United States, ² Memorial Sloan-Kettering Cancer Center, New York, NY, United States, ³ Oxford University Hospitals NHS Trust, Oxford, United Kingdom, ⁴ Seattle Cancer Care Alliance/ Fred Hutchinson Cancer Research Center, Seattle, Washington, United States, ⁵ Columbia University Medical Center, New York, New York, United States, ⁶ Cleveland Clinic, Cleveland, OH, United States, ⁷ University of Rochester, Rochester, NY, United States, ⁸ Dartmouth-Hitchcock Medical Center, Lebanon, New Hampshire, United States, ⁹ Georgetown University Hospital, Washington, DC, United States, ¹⁰ Georgetown University Hospital Lombardi Comprehensive Cancer, Washington, DC, United States, ¹¹ Weill Cornell Medicine, New York, New York, United States, ¹² Abramson Cancer Center, University of Pennsylvania, Philadelphia, PA, United States, ¹³ University of Pennsylvania, Philadelphia, Pennsylvania, United States, ¹⁴ Aptitude Health, Deerfield, IL, United States, ¹⁵ Novant Health, Charlotte, NC, United StatesJohn Theurer Cancer Center, Hackensack University Medical Center, United StatesUniversity of North Carolina, Chapel Hill, NC, United StatesThe Cancer Center at Lowell General Hospital, Lowell, Massachusetts, United StatesSwedish Cancer Institute Hematologic Malignancies Program, Seattle, Washington, United StatesCarolinas HealthCare Institute- Levine Cancer Institute, Charlotte, North Carolina, United StatesCancer Research UK & UCL Cancer Trials Centre, University College London, London, United KingdomCleveland Clinic, Cleveland, Ohio, United StatesUniversity of Oxford, Oxford, United KingdomSwedish Cancer Center, Seattle, WA, United StatesDuke Medical Center, Durham, NC, United StatesFred Hutchinson Cancer Research Center, Seattle, WA, United StatesNottingham University Hospitals NHS Trust, Nottingham, United KingdomDuke University, Durham, North Carolina, United States
2106	Impact of ibrutinib on quality of life in patients with chronic lymphocytic leukemia: preliminary results of real-world experience
	Maria J Mela Osorio, ¹ Astrid Pavlovsky, ¹ Carolina Pavlovsky, ¹ Isolda Fernández, ² Federico Sackmann Massa, ¹ Luciana Ferrari, ¹ Mariana Juni, ¹ Maximiliano Riddick, ³ Miguel Pavlosky (Primary Presenter), ¹ FUNDALEU, BUENOS AIRES, Argentina, ² fundaleu, CABA, Argentina, ³ Departamento de

	Matemática, Facultad de Ciencias Exactas, UNLP, CONICET, La Plata, Argentina
2109	Next-generation sequencing of TP53 mutations negates the need for FISH assessment in the investigation of TP53 aberrations
	Mark A. Catherwood (Primary Presenter), ¹ Doriane Cavalieri, ² Niamh Appleby, ³ David Bruce, ⁴ David Donaldson, ⁵ Helen Dreau, ⁶ Ezzat ElHassadi, ⁷ Andrew Hodgson, ⁸ Amjad Hayat, ⁹ Mary Cahill, ¹⁰ John Quinn, ¹¹ Philip Murphy, ¹¹ Ken Mills, ¹² Adele Timbs, ¹³ Sarah Lawless, ¹⁴ Patrick Thornton, ¹⁵ Anna Schuh, ¹ Belfast City Hospital, Belfast, United Kingdom, ² University of Oxford, Headington, United Kingdom, ³ Oxford Molecular Diagnostic Centre, Oxford, United Kingdom, ⁴ Oxford Molecular Diagnostics Centre, Department of Oncology, University of Oxford, Oxford, United Kingdom, ⁵ Haematology Department, Belfast City Hospital, Belfast, United Kingdom, ⁶ Oxford Molecular Diagnostics Centre, Department of Oncology, University of Oxford, United Kingdom, ⁷ UNIVERSITY HOSPITAL WATERFORD, Waterford, Ireland, ⁸ Sligo University Hospital, Sligo, Ireland, ⁹ Galway University Hospitals, Galway, Ireland, ¹⁰ Cork University Hospital, Cork, Ireland, ¹¹ HAEMATOLOGY, BEAUMONT HOSPITAL, DUBLIN, Dublin, Ireland, ¹² Queens University Belfast, Belfast, United Kingdom, ¹³ Oxford Molecular Diagnostics Centre, Oxford University Hospitals, Oxford, United Kingdom, ¹⁴ Haematology Department, Belfast City Hospital, United Kingdom, ¹⁵ Beaumont Hospital, DUBLIN, IrelandUniversity of Oxford, Oxford, United Kingdom
2110	Characterization of mutational status and rearrangement of IGHV in a cohort of Spanish CLL patients
	Carolina Muñoz Novas (Primary Presenter), ¹ Íñigo Figueroa, ² Isabel Teresa González-Gascón y Marín, ¹ MARIA HERNANDEZ SANCHEZ, ³ Ana Eugenia Rodríguez-Vicente, ⁴ María Ángeles Foncillas, ⁵ Karen Marín, ⁵ Juan Churruca, ² Marcos González Díaz, ⁶ Jesús María Hernández, ⁴ José-Ángel Hernández, ⁵ , ¹ Hospital Infanta Leonor, Madrid, Spain, ² Hospital Universitario Infanta Leonor, Spain, ³ CANCER RESEARCH CENTER, SALAMANCA, Spain, ⁴ Hospital Universitario de Salamanca, Salamanca, Spain, ⁵ Hospital Universitario Infanta Leonor, Madrid, Spain, ⁶ University Hospital, IBSAL-Salamanca, Centro de Investigación del Cáncer and CIBERONC, University of Salamanca, Salamanca, Spain
2111	Chronic lymphocytic leukemia (CLL)-IPI score and outcomes for venetoclax-treated CLL patients in a large multicenter cohort
	Danielle Brander (Primary Presenter), ¹ Toby Eyre, ² Chadi Nabhan, ³ Nicole Lamanna, ⁴ Brian Hill, ⁵ Paul Barr, ⁶ Erick Lansigan, ⁷ Bruce D. Cheson, ⁸ Lindsey Roeker, ⁹ Maryam Yazdy, ¹⁰ Nirav Shah, ¹¹ John Allan, ¹² Joanna Rhodes, ¹³ Kaitlin Kennard, ¹⁴ Stephen Schuster, ¹⁵ Alan Skarbnik Andre Goy Colleen Dorsey, ⁹ Catherine Coombs Hande H. Tuncer Chaitra Ujjani Allison Winter John Pagel Neil Bailey Anna Schuh Mazyar Shadman Andrea Sitlinger Hanna Weissbrot Amy Kirkwood Christopher Fox Ryan Jacobs Anthony Mato, ¹ Duke University,

	<p>Durham, North Carolina, United States, ²Oxford University Hospitals NHS Trust, Oxford, United Kingdom, ³Aptitude Health, Deerfield, IL, United States, ⁴Columbia University Medical Center, New York, New York, United States, ⁵Cleveland Clinic, Cleveland, OH, United States, ⁶University of Rochester, Rochester, NY, United States, ⁷Dartmouth-Hitchcock Medical Center, Lebanon, New Hampshire, United States, ⁸Georgetown University Hospital, Washington, DC, United States, ⁹Memorial Sloan-Kettering Cancer Center, New York, NY, United States, ¹⁰Georgetown University Hospital Lombardi Comprehensive Cancer, Washington, DC, United States, ¹¹Medical College of Wisconsin, Milwaukee, WI, United States, ¹²Weill Cornell Medicine, New York, New York, United States, ¹³Northwell Health, Lake Success, NY, United States, ¹⁴University of Pennsylvania, Philadelphia, Pennsylvania, United States, ¹⁵Abramson Cancer Center, University of Pennsylvania, Philadelphia, PA, United StatesNovant Health, Charlotte, NC, United StatesJohn Theurer Cancer Center, Hackensack University Medical Center, United StatesUniversity of North Carolina, Chapel Hill, NC, United StatesThe Cancer Center at Lowell General Hospital, Lowell, Massachusetts, United StatesSeattle Cancer Care Alliance/ Fred Hutchinson Cancer Research Center, Seattle, Washington, United StatesCleveland Clinic, Cleveland, Ohio, United StatesSwedish Cancer Institute Hematologic Malignancies Program, Seattle, Washington, United StatesSwedish Cancer Center, Seattle, WA, United StatesUniversity of Oxford, Oxford, United KingdomFred Hutchinson Cancer Research Center, Seattle, WA, United StatesDuke Medical Center, Durham, NC, United StatesColumbia University Medical Center, New York, NY, United StatesCancer Research UK & UCL Cancer Trials Centre, University College London, London, United KingdomNottingham University Hospitals NHS Trust, Nottingham, United KingdomCarolinas HealthCare Institute- Levine Cancer Institute, Charlotte, North Carolina, United StatesMemorial Sloan Kettering Cancer Center, New York, New York, United States</p>
2112	<p>Assessment of immunoglobulin heavy chain variable region (IGHV) mutation status with a next-generation sequencing (NGS) immunosequencing assay for minimal residual disease (MRD)</p>
	<p>Lik Wee Lee,¹ Travers Ching,¹ Keyur Patel,² Philip Thompson,³ Nitin Jain,⁴ Alessandra Ferrajoli,⁵ Zeev Estrov,⁴ Jan A. Burger,⁶ Michael Keating,⁷ Prithviraj Bose,⁸ William Wierda,⁹ Lanny Kirsch (Primary Presenter),¹ ¹Adaptive Biotechnologies, Seattle, WA, United States, ²UT MD Anderson Cancer Center, Houston, TX, United States, ³The University of Texas M.D. Anderson Cancer Center, HOUSTON, TX, United States, ⁴The University of Texas MD Anderson Cancer Center, Houston, Texas, United States, ⁵The University of Texas MD Anderson Cancer Center, Houston, TX, United States, ⁶University of Texas, MD Anderson Cancer Center, Houston, Texas, United States, ⁷University of Texas, MD Anderson Cancer Center, Houston, TX, United States, ⁸MD Anderson Cancer Center, Houston, Texas, United States, ⁹University of Texas MD Anderson, Houston, Texas, United States</p>
2113	<p>High-dose blinatumomab is active in Richter's syndrome</p>

	Philip Thompson (Primary Presenter), ¹ Alessandra Ferrajoli, ² Michael Keating, ³ Pinaki Banerjee Michael Andreeff Katy Rezvani William Wierda, ⁴ , ¹ The University of Texas M.D. Anderson Cancer Center, HOUSTON, TX, United States, ² The University of Texas MD Anderson Cancer Center, Houston, TX, United States, ³ University of Texas, MD Anderson Cancer Center, Houston, TX, United States, ⁴ University of Texas MD Anderson, Houston, Texas, United States
2114	Venetoclax-resistant CLL cells show an aggressive phenotype
	Esteban Enrique Elias, ¹ Ana Colado, ² GREGORIO RAUL CORDINI, ³ Maricel Vergara Rubio, ² Maria Cabrejo, ⁴ Horacio Fernández Grecco, ⁵ Raimundo Bezares, ⁶ Rosario Custidiano, ⁷ Julio César Sánchez-Ávalos, ⁸ Maria de los Angeles Vicente Reparaz, ⁹ Gonzalo Garate, ¹⁰ Mercedes Borge, ¹ Mirta Giordano, ¹¹ Romina Gamberale (Primary Presenter), ¹ , ¹ IMEX-CONICET-ANM, Buenos Aires, Argentina, ² IMEX-CONICET-ANM, CABA, Argentina, ³ Hospital de Clínicas José de San Martín UBA, IMEX-CONICET-ANM, CIUDAD DE BUENOS AIRES, Argentina, ⁴ NONE, Ciudad Autónoma de Buenos Aires, Argentina, ⁵ Sanatorio Dr. Julio Méndez, Buenos Aires, Argentina, ⁶ Hospital General de Agudos Dr. Teodoro Alvarez, CABA, Argentina, ⁷ Instituto Alexander Fleming, Buenos Aires, Argentina, ⁸ Instituto Alexander Fleming, CABA, Argentina, ⁹ Roche Argentina, Argentina, ¹⁰ Janssen, Argentina, ¹¹ Institute for Experimental Medicine, Ciudad de Buenos Aires, Argentina
2115	The prognostic value of flow cytometry determination of CD38 and CD49d on leukemic cells of Argentinian CLL patients
	GREGORIO RAUL CORDINI (Primary Presenter), ¹ Esteban Enrique Elias, ² Ana Colado, ³ Maricel Vergara Rubio, ³ Pablo Morande, ⁴ Alexia Vereertbrugghen, ⁵ Carmen Stanganelli, ³ Irma Slavutsky, ³ Horacio Fernández Grecco, ⁶ Rosario Custidiano, ⁷ Santiago Cranco, ⁸ Julio Sanchez Avalos, ⁹ Maria de los Angeles Vicente Reparaz, ¹⁰ Gonzalo Garate, ¹¹ Raimundo Bezares, ¹² Mercedes Borge, ² Mirta Giordano, ¹³ Romina Gamberale, ² , ¹ Hospital de Clínicas José de San Martín UBA, IMEX-CONICET-ANM, CIUDAD DE BUENOS AIRES, Argentina, ² IMEX-CONICET-ANM, Buenos Aires, Argentina, ³ IMEX-CONICET-ANM, CABA, Argentina, ⁴ INIGEM (CONICET-Universidad de Buenos Aires) Facultad de Farmacia y Bioquímica-Hospital de Clínicas, Ciudad Autónoma de Buenos Aires, Argentina, ⁵ IMEX-CONICET-ANM, Ciudad Autónoma De Buenos Aires, Argentina, ⁶ Sanatorio Dr. Julio Méndez, Buenos Aires, Argentina, ⁷ Instituto Alexander Fleming, Buenos Aires, Argentina, ⁸ Instituto Alexander Fleming, CABA, Argentina, ⁹ Fleming, Buenos Aires, Argentina, ¹⁰ Roche Argentina, Argentina, ¹¹ Janssen, Argentina, ¹² Hospital General de Agudos Dr T Alvarez, Buenos Aires, Argentina, ¹³ Institute for Experimental Medicine, Ciudad de Buenos Aires, Argentina
2116	An updated prognostic index for CLL in the ibrutinib era: findings from a large multicenter retrospective cohort study

	<p>Max Gordon (Primary Presenter),¹ Andrea Sitlinger,² Tareq Salous,³ Hamood Alqahtani,⁴ Michael Churnetski,⁵ Paul Wisniewski,⁶ Xavier Rivera,⁷ Krish Patel,⁸ Daniel Persky,⁹ Jonathon Cohen,⁵ Michael Y. Choi,¹⁰ Brian Hill,¹¹ Mazyar Shadman,¹² Deborah Stephens,¹³ Danielle Brander,¹⁴ Alexey Danilov,¹ ¹Oregon Health and Science University, Portland, Oregon, United States, ²Duke Medical Center, Durham, NC, United States, ³Cleveland Clinic, Cleveland, Ohio, United States, ⁴University of California, San Diego, United States, ⁵Emory University, Atlanta, GA, United States, ⁶Swedish Medical Center, Seattle, WA, United States, ⁷University of Arizona, United States, ⁸Swedish Cancer Institute, Seattle, WA, United States, ⁹University of Arizona Cancer Center, Tucson, AZ, United States, ¹⁰University of California San Diego, La Jolla, CA, United States, ¹¹Cleveland Clinic, Cleveland, OH, United States, ¹²Fred Hutchinson Cancer Research Center, Seattle, WA, United States, ¹³University of Utah, Salt Lake City, Utah, United States, ¹⁴Duke University, Durham, North Carolina, United States</p>
2118	<p>A novel simplified comorbidity score for chronic lymphocytic leukemia (CLL): a large multicenter retrospective cohort study of patients treated with ibrutinib and/or chemo-immunotherapy (CIT)</p>
	<p>Max Gordon (Primary Presenter),¹ Andy Kaempf Andrea Sitlinger,² Tareq Salous,³ Hamood Alqahtani,⁴ Michael Churnetski,⁵ Paul Wisniewski,⁶ Xavier Rivera,⁷ Krish Patel,⁸ Daniel Persky,⁹ Jonathon Cohen,⁵ Michael Y. Choi,¹⁰ Brian Hill,¹¹ Mazyar Shadman,¹² Deborah Stephens,¹³ Danielle Brander,¹⁴ Byung Park,¹⁵ Alexey Danilov,¹ ¹Oregon Health and Science University, Portland, Oregon, United States, ²Duke Medical Center, Durham, NC, United States, ³Cleveland Clinic, Cleveland, Ohio, United States, ⁴University of California, San Diego, United States, ⁵Emory University, Atlanta, GA, United States, ⁶Swedish Medical Center, Seattle, WA, United States, ⁷University of Arizona, United States, ⁸Swedish Cancer Institute, Seattle, WA, United States, ⁹University of Arizona Cancer Center, Tucson, AZ, United States, ¹⁰University of California San Diego, La Jolla, CA, United States, ¹¹Cleveland Clinic, Cleveland, OH, United States, ¹²Fred Hutchinson Cancer Research Center, Seattle, WA, United States, ¹³University of Utah, Salt Lake City, Utah, United States, ¹⁴Duke University, Durham, North Carolina, United States, ¹⁵Oregon Health & Science University, Portland, Oregon, United States</p>
2119	<p>miR-223 and miR-551a as gene signatures of aggressive chronic lymphocytic leukemia</p>
	<p>Ritu Gupta (Primary Presenter),¹ Lata Rani,¹ Gurvinder Kaur,² Sadaf Khan,² Ajay Gogia,¹ Anubha Gupta,³ ATUL SHARMA,⁴ Lalit Kumar,¹ ¹All India Institute of Medical Sciences, New Delhi, New Delhi, India, ²Laboratory Oncology Unit, Dr. B.R.A.IRCH, All India Institute of Medical Sciences, New Delhi, India, India, ³SBI Lab, Department of Electronics and Communication Engineering, Indraprastha Institute of Information Technology-Delhi (IIIT-D), Delhi, India, India, ⁴ALL INDIA INSTITUTE OF MEDICAL SCIENCES, NEW DELHI, India</p>

2120	Identification of the frequency and characteristics of bulky versus non-bulky lymphomatous disease in chronic lymphocytic leukaemia (CLL)
	James Cohen, ¹ Lauren Thurgood, ² Karen Lower, ¹ Bryone Kuss (Primary Presenter), ³ ¹ Flinders University, Adelaide, Australia, ² Flinders University, Bedford Park, Australia, ³ Flinders Medical Centre, Bedford Park, Australia
2121	Obinutuzumab as consolidation after chemo-immunotherapy is highly effective in achieving MRD clearance from bone marrow and peripheral blood resulting in improved Progression-free survival: Results of UK NCRI Phase II/III GALACTIC trial
	Talha Munir (Primary Presenter), ¹ Dena Howard, ² Anna Hockaday, ² Jamie Oughton, ² Jake Emmerson, ² David Phillips, ² Jeff Neilson, ³ Nicholas Pemberton, ⁴ Shankara Paneesha, ⁵ Ben Kennedy, ⁶ Andrew Rawstron, ⁷ Peter Hillmen, ⁸ ¹ St James's University Hospital, Leeds, United Kingdom, ² University of Leeds, Leeds, United Kingdom, ³ Russell Hall Hospital, Dudley, United Kingdom, ⁴ Worcestershire Royal Hospital, Worcester, United Kingdom, ⁵ Birmingham Heratlands Hospital, Birmingham, United Kingdom, ⁶ Leicester Royal Infirmary, Leicester, United Kingdom, ⁷ HMDS, Leeds Teaching Hospitals NHS Trust, Leeds, United Kingdom, ⁸ The Leeds Teaching Hospitals, St. James University, Leeds, United Kingdom
2122	Glucocorticoid plus thalidomide and methotrexate has promising clinical response in large granular lymphocyte leukemia
	Jun Du (Primary Presenter), ¹ Ying Yu, ² Yang Jiao Wenyang Huang, ² Zengjun Li, ³ Gang An, ² Shuhua Yi, ⁴ Lugui Qiu, ⁴ ¹ Institute of Hematology & Blood Diseases Hospital, Chinese Academy of Medical Sciences & Peking Union Medical College, Tianjin, China, TianJin, China, ² Institute of Hematology & Blood Diseases Hospital, Chinese Academy of Medical Sciences & Peking Union Medical College, Tianjin, China, China, ³ Blood Disease Hospital, Chinese Academy of Medical Science, Tianjin, China, ⁴ Institute of Hematology and Blood Disease Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Tianjin, China
2123	Prognostic significance of circulating angiogenic cytokines in chronic lymphocytic leukemia
	Lukas Smolej (Primary Presenter), ¹ Ctirad Andrys, ² Pavel Vodarek, ³ Monika Motyckova, ² Martin Šimkovič, ⁴ David Belada, ³ Pavel Zak, ² ¹ Faculty Hospital Hradec Kralove, Hradec Kralove, Czech Republic, ² University Hospital and Faculty of Medicine, Hradec Kralove, Czech Republic, ³ University Hospital and Faculty of Medicine Hradec Kralove, Hradec Kralove, Czech Republic, ⁴ Martin Šimkovič, Hradec Kralove, Czech Republic
2125	Truly unmutated IGHV-IGHD-IGHJ gene rearrangements in CLL: do they really exist?
	Katerina Gemenetzi (Primary Presenter), ¹ Andreas Agathangelidis, ² Eva Koravou, ³ Konstantinos Pasentsis, ¹ Chrysi Galigalidou, ¹ Elisavet Vlachonikola, ⁴ Fotis Psomopoulos, ⁵ Michail Iskas, ³ Niki Stavroyianni, ⁶ Achilles

	Anagnostopoulos, ⁷ Raphael Sandaltzopoulos, ⁸ KOSTAS STAMATOPOULOS, ⁹ Anastasia Hadzidimitriou, ² , ¹ Institute of Applied Biosciences, CERTH, Thessaloniki, Greece, ² CERTH, Thessaloniki, Greece, ³ Hematology Department and HCT Unit, G. Papanicolaou Hospital, Thessaloniki, Greece, ⁴ INAB CERTH, Thessaloniki, Greece, ⁵ Center for Research and Technology Hellas, Thessaloniki, Greece, ⁶ Papanikolaou Hospital Thessaloniki, Thessaloniki, Greece, ⁷ Haematology Dpt-BMT Unit-Gene and Cell Therapy Centre, George Papanicolaou Hospital, THESSALONIKI, Greece, ⁸ Democritus University of Thrace (DUTH), Department of Molecular Biology and Genetics (MBG), Alexandroupolis, Greece, ⁹ Institute of Applied Biosciences, Thessaloniki, Greece
2126	The importance of PET/CT in detecting Richter's transformation in patients with chronic lymphocytic leukemia/small lymphocytic lymphoma
	Xinqi Zheng (Primary Presenter), ¹ Xiao-Tong Li, ² Li Wang, ³ Hua-Yuan Zhu, ³ XU WEI Jian-Yong Li, ³ , ¹ Department of Hematology, Jiangsu Province Hospital, Nanjing, China, Nanjing, China, ² Jiangsu Province Hospital, Nanjing, China, ³ the First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital, Nanjing, China
2127	Deeper remission related with better survival of Waldenstrom's macroglobulinemia patients
	Wenjie Xiong (Primary Presenter), ¹ Yuting Yan, ² yi wang, ² Zengjun Li, ¹ Rui Lv, ² Wei Liu, ² Shuhua Yi, ¹ Lugui Qiu, ¹ , ¹ Institute of Hematology and Blood Disease Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Tianjin, China, ² Institute of Hematology & Blood Diseases Hospital, Chinese Academy of Medical Science & Peking Union Medical College, Tianjin, China
2128	Bioenergetics in chronic lymphocytic leukemia: a key role for lipid uptake and storage impacting cell proliferation and survival.
	Lauren Thurgood (Primary Presenter), ¹ Lara Escane, ¹ Ashley Rowland, ¹ Anya Hotinski, ² Karen Lower, ² Bryone Kuss, ³ , ¹ Flinders University, Bedford Park, Australia, ² Flinders University, Adelaide, Australia, ³ Flinders Medical Centre, Bedford Park, Australia
2129	The clinical features and prognostic effects of peripheral blood abnormalities in patients of follicular lymphoma with bone marrow involvement
	Wenjie Xiong (Primary Presenter), ¹ Yuting Yan, ² yi wang, ² Zengjun Li, ¹ Rui Lv, ² Wei Liu, ² Tingyu wang, ² Shuhua Yi, ¹ Lugui Qiu, ¹ , ¹ Institute of Hematology and Blood Disease Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Tianjin, China, ² Institute of Hematology & Blood Diseases Hospital, Chinese Academy of Medical Science & Peking Union Medical College, Tianjin, China
2130	Clinical impact of clonal and subclonal TP53 mutations and deletions in chronic lymphocytic leukemia: an Italian multicenter experience

	Riccardo Bomben (Primary Presenter), ¹ FRANCESCA MARIA ROSSI, ² Tiziana D'Agaro, ³ Tamara Bittolo, ³ Filippo Vit, ³ Antonella Zucchetto, ³ Erika Tissino, ³ Federico Pozzo, ³ Pietro Bulian, ³ Massimo Degan, ³ Jerry Polesel, ³ Giovanni D'Arena, ⁴ Enrico Santinelli, ⁵ Annalisa Biagi, ⁶ Annalisa Chiarenza, ⁷ Francesco Zaja, ⁸ Gabriele Pozzato, ⁸ Francesco Di Raimondo, ⁹ Davide Rossi, ¹⁰ Giovanni Del Poeta, ¹¹ Valter Gattei, ³ , ¹ Centro di Riferimento Oncologico di Aviano (CRO) IRCCS, Aviano, Italy, ² CRO, AVIANO, Italy, ³ Centro di Riferimento Oncologico di Aviano (CRO) IRCCS, Aviano, Aviano, Italy, ⁴ IRCCS Centro di Riferimento Oncologico della Basilicata, Rionero in Vulture, Italy, ⁵ S. Eugenio Hospital and University of Tor Vergata, Roma, Roma, Italy, ⁶ Hematology, Department of Biomedicine and Prevention, University of Tor Vergata, Roma, ARICCIA, Italy, ⁷ Division of Hematology, A.O.U Policlinico of Catania, Italy, Catania, Italy, ⁸ Azienda Sanitaria Universitaria Integrata, Trieste, Trieste, Italy, ⁹ University of Catania and Policlinico, Catania, Italy, Catania, Italy, ¹⁰ Oncology Institute of Southern Switzerland, Bellinzona, Switzerland, ¹¹ Università degli Studi di Roma, Roma, Italy
2131	High PD-1 and CTLA-4 expression contribute to NK cell exhaustion in B-CLL patients
	Paul Moss (Primary Presenter), ¹ Jianmin Zuo, ² Mustafa Farhat, ² , ¹ University of Birmingham, UK, Birmingham, United Kingdom, ² University of Birmingham, Birmingham, United Kingdom
2132	Clonal phylogeny of trisomy 12 – NOTCH1-mutated chronic lymphocytic leukaemia
	Matthew Rose-Zerilli (Primary Presenter), ¹ Rachel Parker, ² Nicola Potter, ³ Lucy Kimbley, ¹ Jade Forster, ² Helen Parker, ¹ Marta Larrayoz, ² Zadie Davis, ⁴ Stacey Fernandes, ⁵ Andrew Steele, ¹ Helen McCarthy, ⁶ Francesco Forconi, ⁷ Renata Walewska, ⁴ Jennifer Brown, ⁸ Mel Greaves, ⁹ David Oscier, ⁴ Jonathan Strefford, ¹ , ¹ University of Southampton, Southampton, United Kingdom, ² University of Southampton, United Kingdom, ³ Centre for Evolution and Cancer, The Institute of Cancer Research, Sutton, United Kingdom, ⁴ Royal Bournemouth Hospital, Bournemouth, United Kingdom, ⁵ Dana Farber Cancer Institute, Boston, MA, United States, ⁶ Royal Bournemouth General Hospital, Bournemouth, United Kingdom, ⁷ Dr, Southampton, United Kingdom, ⁸ Dana-Farber Cancer Institute, Boston, Massachusetts, United States, ⁹ Centre for Evolution and Cancer, The Institute of Cancer Research, United Kingdom
2135	Regulation of HIF-1α in TP53-disrupted chronic lymphocytic leukemia cells and its potential role as a therapeutic target
	Valentina Griggio, ¹ Candida Vitale, ² Maria Todaro, ³ Chiara Riganti, ⁴ Joanna Kopecka, ⁵ Chiara Salvetti, ³ Riccardo Bomben, ⁶ Michele Dal Bo, ⁷ Daniela Magliulo, ⁸ Davide Rossi, ⁹ Gabriele Pozzato, ¹⁰ Lisa Bonello, ¹¹ Monia Marchetti, ¹² Paola Omedè, ¹³ Ahad Ahmed Kodipad, ¹⁴ Luca Laurenti, ¹⁵ Giovanni Del Poeta Francesca Romana Mauro Rosa Bernardi Thorsten Zenz Valter Gattei Gianluca Gaidano Robin Foà Massimo Massaia Mario Boccadoro Marta Coscia (Primary Presenter), ¹ Department of Molecular Biotechnology and Health

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2136	<p>Minor-clone TP53 mutations in CLL patients entering first-line treatment: clonal evolution and clinical impact</p>
	<p>Jitka Malcikova (Primary Presenter),¹ Sarka Pavlova,² Barbara Vonková,³ Jana Kotašková,⁴ Lenka Radova,² Karla Plevova,⁵ Marcela Zenatova,⁶ Jakub Hynst,² Barbara Dvorackova,⁷ Anna Panovska,⁶ Yvona Brychtova,⁶ Boris Tichý,⁸ Veronika Navrkalova,⁷ Karol Pal,² Jiri Mayer,⁹ Michael Doubek,⁶ Sarka Pospisilova,⁴ ¹CEITEC Masaryk University, University Hospital Brno, Brno, Czech Republic, ²CEITEC Masaryk University, Brno, Czech Republic, ³University Hospital and Masaryk University Brno, Karlovy Vary- Doubí, Czech Republic, ⁴CEITEC Masaryk University; Department of Internal Medicine - Hematology and Oncology, University Hospital Brno and Medical Faculty MU, Brno, Czech Republic, ⁵University Hospital Brno & Masaryk University, Brno, Czech Republic, ⁶University Hospital Brno, Brno, Czech Republic, ⁷University Hospital and Masaryk University Brno, Brno, Czech Republic, ⁸CEITEC Masaryk University, Czech Republic, ⁹Department of Internal Medicine, Hematology and Oncology, University Hospital Brno, Jihlavska, Czech Republic</p>
2137	<p>Assessing physical fitness in treatment-naïve and ibrutinib-treated chronic lymphocytic leukemia (CLL) patients</p>
	<p>Andrea Sitlinger (Primary Presenter),¹ Michael Deal,² Dana Thompson,³ Tiffany Stewart,⁴ J. Brice Weinberg,⁵ David Bartlett,³ Danielle Brander,⁶ ¹Duke Medical Center, Durham, NC, United States, ²Duke University School of Medicine, Cincinnati, OH, United States, ³Duke University School of Medicine,</p>

	Durham, NC, United States, ⁴ Duke University, Durham, NC, United States, ⁵ Duke University & Durham VAMC, Durham, NC, United States, ⁶ Duke University, Durham, North Carolina, United States
2138	Natural history and mechanism of spontaneous CLL regression: an integrative analysis of 20 cases
	Marwan Kwok, ¹ Andrew Rawstron, ² Anshita Goel, ³ Grigorios Papatzikas, ¹ Ceri Oldreive, ⁴ Rhiannon Jones, ⁵ Samantha Drennan, ¹ Angelo Agathangelou, ³ Archana Sharma-Oates, ³ Paul Evans, ⁶ Edward Smith, ¹ Surita Dalal, ⁷ Jingwen Mao, ¹ Robert Hollows, ¹ Naheema Gordon, ³ Mayumi Hamada, ¹ Nicholas Davies, ³ Helen Parry, ¹ Andrew Beggs, ³ Talha Munir, ⁸ Paul Moreton, ³ Shankara Paneesha, ⁹ Guy Pratt, ⁴ Malcolm Taylor, ⁴ Francesco Forconi, ¹⁰ Duncan Baird, ¹¹ Jean-Baptiste Cazier, ¹ Paul Moss, ⁴ Peter Hillmen, ¹² Tatjana Stankovic (Primary Presenter), ¹³ ¹ University of Birmingham, Birmingham, United Kingdom, ² HMDS, Leeds Teaching Hospitals NHS Trust, Leeds, United Kingdom, ³ University of Birmingham, United Kingdom, ⁴ University of Birmingham, UK, Birmingham, United Kingdom, ⁵ Cardiff University, Cardiff, United Kingdom, ⁶ St. James's University Hospital, Leeds, United Kingdom, ⁷ University of Leeds, Leeds, United Kingdom, ⁸ St James's University Hospital, Leeds, United Kingdom, ⁹ Birmingham Heratlands Hospital, Birmingham, United Kingdom, ¹⁰ Dr, Southampton, United Kingdom, ¹¹ Cardiff University, School of medicine, Cardiff, United Kingdom, ¹² The Leeds Teaching Hospitals, St. James University, Leeds, United Kingdom, ¹³ Institute for Cancer and Genomic Sciences, University of Birmingham, UK, Birmingham, United Kingdom
2139	The diagnostic chronic lymphocytic leukaemia genome by nanopore sequencing
	Adam Burns (Primary Presenter), ¹ Daniella DiSalvo-Williams, ² David Bruce, ³ Pauline Robbe, ¹ Adele Timbs, ⁴ Basile Stamatopoulos, ⁵ Ruth Clifford, ⁶ Maria Lopopolo, ¹ Duncan Parkes, ⁷ Kate Ridout, ⁸ Anna Schuh, ¹ ¹ University of Oxford, Oxford, United Kingdom, ² Oxford University Hospitals NHS Foundation Trust, Oxford, United Kingdom, ³ Oxford Molecular Diagnostics Centre, Department of Oncology, University of Oxford, Oxford, United Kingdom, ⁴ Oxford Molecular Diagnostics Centre, Oxford University Hospitals, Oxford, United Kingdom, ⁵ University of Brussels - Jules Bordet Institute, Brussels, Belgium, ⁶ University Hospital Limerick, Ireland, ⁷ University of Oxford, United Kingdom, ⁸ Oxford University, Headington, United Kingdom
2142	A systematic literature review and quality of evidence assessment of the impact of high-risk biomarkers in progression-free survival associated with a first-line treatment in chronic lymphocytic leukemia
	Margarita Fernandez de la Mata (Primary Presenter), ¹ Jose Luis Bello Lopez, ² Adrian Mosquera Orgueira, ³ BEATRIZ RODRÍGUEZ, ⁴ Ramón de Burgos Pol, ⁵ Miguel Angel Casado, ⁵ Jose Climent, ⁶ Rafael Parra Gabilondo, ⁶ Blanca Gros Otero, ⁷ ¹ HOSPITAL UNIVERSITARIO REINA SOFIA. CÓRDOBA, Córdoba, Spain, ² HOSP. CLINICO UNIVERSITARIO SANTIAGO DE COMPOSTELA, Santiago de Compostela, Spain, ³ HOSP. CLINICO

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2144	Highly multiplexed and simultaneous analysis of protein and RNA expression in chronic lymphocytic leukaemia using PLAYR and mass cytometry
	Andrew Duckworth (Primary Presenter), ¹ Martina Sykorova, ² Faten Yasin, ¹ Joseph Slupsky, ¹ Nagesh Kalakonda, ¹ ¹ University of Liverpool, Liverpool, United Kingdom, ² Immetacyte Ltd., Manchester, United Kingdom
2145	IL-22-producing T cells are increased in CLL patients and their differentiation might be induced by physical interactions with leukemic B cells
	Gerardo Ferrer (Primary Presenter), ¹ Florencia Palacios, ¹ Pui Yan (Paulina) Chiu, ¹ Jacqueline Barrientos, ² Jonathan E. Kolitz, ³ Steven L. Allen, ⁴ Kanti Rai, ⁵ Barbara Sherry, ¹ Nicholas Chiorazzi, ¹ ¹ The Feinstein Institute for Medical Research, Manhasset, New York, United States, ² Zucker School of Medicine at Hofstra Northwell, New Hyde Park, New York, United States, ³ The Feinstein Institute for Medical Research/Hofstra Northwell School of Medicine/North Shore University Hospital and Long Island Jewish Medical Center, Northwell Health, New York, New York, United States, ⁴ The Feinstein Institute for Medical Research/Hofstra Northwell School of Medicine/North Shore University Hospital and Long Island Jewish Medical Center, Northwell Health, Lake Success, New York, United States, ⁵ The Feinstein Institute for Medical Research/Hofstra Northwell School of Medicine/North Shore University Hospital and Long Island Jewish Medical Center, Northwell Health, New Hyde Park, New York, United States
2148	The translational regulator Musashi 2 controls cell survival, migration, metabolism, and trafficking of chronic lymphocytic leukemia B cells
	Florencia Palacios (Primary Presenter), ¹ Joy Yan, ² Gerardo Ferrer, ¹ Jacqueline Barrientos, ³ Jonathan E. Kolitz, ⁴ Steven L. Allen, ⁵ Michael Kharas, ⁶ Omar Abdel-Wahab, ⁶ Kanti Rai, ⁷ Nicholas Chiorazzi, ¹ ¹ The Feinstein Institute for Medical Research, Manhasset, New York, United States, ² Feinstein Institute for Medical Research, Manhasset, NY, United States, ³ Zucker School of Medicine at Hofstra Northwell, New Hyde Park, New York, United States, ⁴ The Feinstein Institute for Medical Research/Hofstra Northwell School of Medicine/North Shore University Hospital and Long Island Jewish Medical Center, Northwell Health, New York, New York, United States, ⁵ The Feinstein Institute for Medical Research/Hofstra Northwell School of Medicine/North Shore University Hospital and Long Island Jewish Medical Center, Northwell Health, Lake Success, New York, United States, ⁶ Sloan Kettering Institute, United States, ⁷ The Feinstein Institute for Medical Research/Hofstra Northwell School of Medicine/North Shore University Hospital and Long Island Jewish Medical Center, Northwell Health, New Hyde Park, New York, United States

2149	The etiology of pleural effusions requiring thoracentesis in patients with chronic lymphocytic leukemia (CLL)
	Amber Koehler (Primary Presenter), ¹ Ayed Ayed, ² Hasan Albitar, ³ Timothy Call, ¹ Kari Rabe Wei Ding, ¹ Saad Kenderian, ¹ Jose Leis, ⁴ Eli Muchtar, ¹ Suzanne Hayman Amie Fonder Susan Schwager, ¹ Susan Slager, ¹ Catarina Aragon Pinto Neil Kay, ¹ Tait Shanafelt, ⁵ Vivek Iyer, ⁶ Sameer Parikh, ¹ ¹ Mayo Clinic, Rochester, Minnesota, United States, ² Cancer Specialists of North Florida, Jacksonville, Florida, United States, ³ Mayo Clinic, rochester, mn, United States, ⁴ Mayo Clinic, Phoenix, Arizona, United States, ⁵ Stanford University - School of Medicine, Stanford, CA, United States, ⁶ Mayo Clinic, United States
2150	Over expression of diacylglycerol kinases in unresponsive CLL T-cells for TCR stimulation
	Gerardo Ferrer (Primary Presenter), ¹ Andrea Nicola Mazzarello, ¹ Florencia Palacios, ¹ Shih-Shih Chen, ¹ Jacqueline Barrientos, ² Jonathan E. Kolitz, ³ Steven L. Allen, ⁴ Kanti Rai, ⁵ Nicholas Chiorazzi, ¹ ¹ The Feinstein Institute for Medical Research, Manhasset, New York, United States, ² Zucker School of Medicine at Hofstra Northwell, New Hyde Park, New York, United States, ³ The Feinstein Institute for Medical Research/Hofstra Northwell School of Medicine/North Shore University Hospital and Long Island Jewish Medical Center, Northwell Health, New York, New York, United States, ⁴ The Feinstein Institute for Medical Research/Hofstra Northwell School of Medicine/North Shore University Hospital and Long Island Jewish Medical Center, Northwell Health, Lake Success, New York, United States, ⁵ The Feinstein Institute for Medical Research/Hofstra Northwell School of Medicine/North Shore University Hospital and Long Island Jewish Medical Center, Northwell Health, New Hyde Park, New York, United States
2151	Results of mutational status of Immunoglobulin Heavy Chain Variable (IGHV) genes analysis in a cohort of patients with B-CLL: a single centre experience
	Claudia Mardaraz (Primary Presenter), ¹ Carolina Pavlovsky, ² Miguel Pavlosky, ³ Federico Sackmann Massa Marta Zerga, ⁴ Maria J Mela Osorio Eduardo Bullorsky, ⁵ Astrid Pavlovsky, ¹ Centro de Hematología Pavlovsky, Buenos Aires, Argentina, ² FUNDALEU, Buenos Aires, Argentina, ³ FUNDALEU, CABA, Argentina, ⁴ Angel H. Roffo Institute of Oncology, Buenos Aires, Argentina, ⁵ Hospital Británico, Buenos Aires, Argentina
2152	Modelling functional differences between sIgM, sIgD and chemokine signalling in chronic lymphocytic leukaemia using kinome profiling
	Humood Al Shmrany (Primary Presenter), ¹ Adam Linley, ¹ Anil Kumar Mondru Kathryn Glenn, ² Dean Hammond, ² Ian Prior, ¹ David MacEwan, ¹ Nagesh Kalakonda, ¹ Joseph Slupsky, ¹ ¹ University of Liverpool, Liverpool, United Kingdom, ² University of Liverpool, United Kingdom
2153	Expression profile of Chinese patients with chronic lymphocytic leukemia by high-throughput RNA sequencing

	Jia-Zhu Wu (Primary Presenter), ¹ Yi Miao, ² Yi-Xin Zou, ³ Hanning Tang, ⁴ Jin-Hua Liang, ¹ Hua-Yuan Zhu, ¹ Li Wang, ¹ Lei Fan, ¹ Wei Xu, ¹ Jian-Yong Li, ¹ , ¹ the First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital, Nanjing, China, ² the First Affiliated Hospital of Nanjing Medical University, Nanjing, China, ³ Jiangsu Province Hospital, Nanjing, China, ⁴ Department of Hematology, Jiangsu Province Hospital, Nanjing, China, China
2154	Efficacy of peripheral blood disease monitoring to predict progression in patients on ibrutinib
	Andrew Rawstron (Primary Presenter), ¹ Talha Munir, ² Kristian Brock, ³ Nichola Webster, ⁴ Francesca Yates, ³ Sophie Cramp, ³ Rebecca Bishop, ⁵ Surita Dalal, ⁶ Ruth de Tute, ⁷ Oonagh Sheehy, ⁸ Andrew Pettitt, ⁹ Christopher Fox, ¹⁰ Stephen Devereux, ¹¹ Christopher Fegan, ¹² Donald MacDonald, ¹³ Adrian Bloor, ¹⁴ Peter Hillmen, ¹⁵ , ¹ HMDS, Leeds Teaching Hospitals NHS Trust, Leeds, United Kingdom, ² St James's University Hospital, Leeds, United Kingdom, ³ University of Birmingham, Birmingham, United Kingdom, ⁴ University of Leeds, United Kingdom, ⁵ University of Birmingham, UK, Birmingham, United Kingdom, ⁶ University of Leeds, Leeds, United Kingdom, ⁷ St. James's Institute of Oncology, Leeds, United Kingdom, ⁸ Belfast City Hospital HSC Trust, Belfast, United Kingdom, ⁹ University of Liverpool, Liverpool, United Kingdom, ¹⁰ Nottingham University Hospitals NHS Trust, Nottingham, United Kingdom, ¹¹ Kings College Hospital, London, United Kingdom, ¹² University of Cardiff, Cardiff, United Kingdom, ¹³ Imperial College London at Hammersmith Hospital, London, United Kingdom, ¹⁴ University of Manchester, Manchester, United Kingdom, ¹⁵ The Leeds Teaching Hospitals, St. James University, Leeds, United Kingdom
2155	Incidence and risk of tumor lysis syndrome in patients with chronic lymphocytic leukemia (CLL) treated with venetoclax outside the context of a clinical trial
	Amber Koehler (Primary Presenter), ¹ Nelson Leung, ² Heidi Finnes, ¹ Timothy Call, ¹ Kari Rabe, ² Sara Achenbach, ¹ Wei Ding, ¹ Saad Kenderian, ¹ Jose Leis, ³ Eli Muchtar, ¹ Suzanne Hayman, ² Amie Fonder, ² Susan Schwager, ¹ Susan Slager, ¹ Neil Kay, ¹ Sameer Parikh, ¹ , ¹ Mayo Clinic, Rochester, Minnesota, United States, ² Mayo Clinic, Rochester, MN, United States, ³ Mayo Clinic, Phoenix, Arizona, United States
2156	Role of stimulation through different surface structures on the activation of different IL-23 or IL-12 stimulatory loops in chronic lymphocytic leukemia
	Martina Cardillo (Primary Presenter), ¹ Serena Matis, ² Marina Fabbi, ² Monica Colombo, ³ Sonia Fabris, ⁴ Katia Todoerti, ⁵ Antonino Neri, ⁶ Massimo Gentile, ⁷ Fortunato Morabito, ⁸ Manlio Ferrarini, ⁹ Franco Fais, ⁹ Giovanna Cutrona, ² , ¹ DIMES, University of Genoa, Genoa, Italy, ² IRCCS Ospedale Policlinico San Martino, Genoa, Italy, ³ IRCCS SanMartino-IST, Genova, Italy, ⁴ Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milano, Italy, ⁵ Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan, Italy, Milano, Italy, ⁶ Ospedale Maggiore Policlinico, Milan, Italy, Milano, Italy, ⁷ Azienda

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2157	Resistance to venetoclax-induced apoptosis of CLL cells due to CD40 stimulation can be reversed by BCL-XL inhibition
	Jack Zhuang (Primary Presenter) Teifion Lockett Xiang Cheng Melanie Oates Shankar Varadarajan Andrew Pettitt University of Liverpool, Liverpool, United Kingdom
2159	The clinical and laboratory characteristics of HCL-V: the data from a single center in China
	Tingyu wang (Primary Presenter), ¹ Zengjun Li, ² Shuhua Yi, ² Rui Lv, ¹ Lugui Qiu, ² ¹ Institute of Hematology & Blood Diseases Hospital, Chinese Academy of Medical Science & Peking Union Medical College, Tianjin, China, ² Institute of Hematology and Blood Disease Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Tianjin, China
2160	The implications of patient views on treatment options for CLL
	Charlotte Martin (Primary Presenter) Zack Pemberton-Whiteley Leukaemia Care, Worcester, United Kingdom
2161	Significant sex differences in CLL progression in the Eμ-TCL1 transgenic mouse model
	Maximilian Koch (Primary Presenter), ¹ Michael Hallek, ² Phuong-Hien Nguyen, ³ ¹ University of Cologne, Department of Internal Medicine I, CECAD Research Institute, Cologne, Germany, ² University of Cologne, Faculty of Medicine and University Hospital of Cologne, Department 1 of Internal Medicine and German CLL Study Group, Cologne, Germany, ³ University of Cologne, Cologne, Germany
2162	A prospective phase 2 study of FCR alternating with ibrutinib in treatment-naïve chronic lymphocytic leukemia: a preliminary result from a single center in China
	Tingyu wang (Primary Presenter), ¹ Zengjun Li, ² Shuhua Yi, ² Rui Lv, ¹ Wei Liu, ¹ Wenyang Huang, ³ Gang An, ³ yi wang, ¹ Lugui Qiu, ² ¹ Institute of Hematology & Blood Diseases Hospital, Chinese Academy of Medical Science & Peking Union Medical College, Tianjin, China, ² Institute of Hematology and Blood Disease Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Tianjin, China, ³ Institute of Hematology & Blood Diseases Hospital, Chinese Academy of Medical Sciences & Peking Union Medical College, Tianjin, China, China
2163	Biological responses to ibrutinib plus venetoclax in the Bloodwise TAP CLARITYstudy
	Andrew Rawstron (Primary Presenter), ¹ Nichola Webster, ² Surita Dalal, ³ Kristian Brock, ⁴ Samuel Muñoz-Vicente, ⁴ Francesca Yates, ⁴ Rebecca Bishop, ⁵ Donald MacDonald, ⁶ Christopher Fegan, ⁷ Alison McCaig, ⁸ Anna Schuh, ⁹ Andrew Pettitt, ¹⁰ John Gribben, ¹¹ Piers Patten, ¹² Stephen Devereux, ¹³ Adrian

	<p>Bloor,¹⁴ Christopher Fox,¹⁵ Francesco Forconi Talha Munir Peter Hillmen,¹HMDS, Leeds Teaching Hospitals NHS Trust, Leeds, United Kingdom,²University of Leeds, United Kingdom,³University of Leeds, Leeds, United Kingdom,⁴University of Birmingham, Birmingham, United Kingdom,⁵University of Birmingham, UK, Birmingham, United Kingdom,⁶Imperial College London at Hammersmith Hospital, London, United Kingdom,⁷University of Cardiff, Cardiff, United Kingdom,⁸NHS Greater Glasgow and Clyde, Glasgow, United Kingdom,⁹University of Oxford, Oxford, United Kingdom,¹⁰University of Liverpool, Liverpool, United Kingdom,¹¹Barts Cancer Institute, London, United Kingdom,¹²King's College London, London, United Kingdom,¹³Kings College Hospital, London, United Kingdom,¹⁴University of Manchester, Manchester, United Kingdom,¹⁵Nottingham University Hospitals NHS Trust, Nottingham, United KingdomDr, Southampton, United KingdomSt James's University Hospital, Leeds, United KingdomThe Leeds Teaching Hospitals, St. James University, Leeds, United Kingdom</p>
2165	Favorable outcome in CLL patients not treated despite having iwCLL criteria
	<p>FERNANDA DE MORAIS MARQUES (Primary Presenter),¹ ADRIANO JESUS,¹ JULIANA GONÇALVES MOLLA VINICIUS VERENA PFISTER ANA RITA FONSECA,² RAYANA LEONEL ANDRE DOMINGUES PEREIRA Mihoko Yamamoto,³ MATHEUS GONCALVES,⁴ Celso Arrais-Rodrigues,⁵ ¹FEDERAL UNIVERSITY OF SAO PAULO, Sao Paulo, Brazil, ²Univerdidade Federal de São Paulo, São Paulo, Brazil, ³10. Universidade Federal de São Paulo, São Paulo, Brazil, ⁴FEDERAL UNIVERSITY OF SAO PAULO, São Paulo, Brazil, ⁵Universidade Federal de Sao Paulo, São Paulo, Brazil</p>
2166	Chronic lymphocytic leukemia remodels the fibroblastic reticular network that contributes to immunosuppression in the tumor microenvironment
	<p>NATALIA COUTO-FRANCISCO (Primary Presenter),¹ Nikolaos Ioannou,¹ Benedetta Apollonio,¹ Antonella Santoro,² Elizabeth Phillips,³ Richard Rosenquist Brandell,⁴ David A Leinster,⁵ Anna Vardi,⁶ Rose-Marie Amini,⁷ Ingo Ringshausen,⁸ Piers Patten,¹ Lesley-Ann Sutton,⁴ Alan Ramsay, ¹King's College London, London, United Kingdom, ²University of Cambridge, United Kingdom, ³NHS and King's College London, United Kingdom, ⁴Karolinska Institutet, Stockholm, Sweden, ⁵AstraZeneca, Cambridge, United Kingdom, ⁶CERTH, Thessaloniki, Greece, ⁷Uppsala University, Sweden, ⁸University of Cambridge, Cambridge, United Kingdom</p>
2167	AID and LPL mRNA expression are useful additional markers that improve CLL-IPI prediction in progressor patients
	<p>Victoria Remedi,¹ Ana Ines Landoni,² Maria Victoria Irigoien,³ Ana Carolina Oliver,⁴ Cecilia Guillermo,⁵ Lilian Diaz,⁶ Angimar Uriepero (Primary Presenter),⁷ Catalina Berca,⁸ Claudia Ortega,⁹ Pablo Oppezco,¹⁰ Raul Gabus,¹¹, ¹Hospital Maciel, ASSE, Montevideo, Uruguay, ²Hospital maciel, Montevideo,</p>

	Uruguay, ³ Hospital de Clinicas, Montevideo, Uruguay, ⁴ Hospital de Clínicas, Montevideo, Uruguay, Montevideo, Uruguay, ⁵ Hematology Department, Hospital de Clinicas, Montevideo, Uruguay, ⁶ Hospital de Clínicas, Universidad de la República, Montevideo, Uruguay, ⁷ Institut Pasteur de Montevideo, Research Laboratory on Chronic Lymphocytic Leukemia., Montevideo, Uruguay, ⁸ Institut Pasteur de Montevideo, Research Laboratory on Chronic Lymphocytic Leukemia, Montevideo, Uruguay, ⁹ Institut Pasteur de Montevideo, Montevideo, Uruguay, ¹⁰ Institute Pasteur de Montevideo, Research Laboratory on Chronic Lymphocytic Leukemia, Montevideo, Uruguay, ¹¹ Hospital Maciel, ASSE, San Diego, California, United States
2169	Clonal evolution in patients with transformation of chronic lymphocytic leukemia in the era of BCR inhibitors
	Helena Urbankova (Primary Presenter), ¹ Renata Urbanová, ² Lenka Kruzova, ¹ Petra Schneiderova, ³ Anna Petrackova, ³ Romana Janska, ¹ Milena Holzerova, ¹ Martina Divoka, ¹ Peter Turcsanyi, ¹ Vit Prochazka, ⁴ Martin Novak, ¹ Zuzana Pikalova, ¹ Patrik Flodr, ⁵ Jana Jankova, ⁵ Lenka Henzlova, ⁶ Martina Stoklasova, ⁷ Martin Tichy, ⁵ Eva Kriegova, ³ Tomas Papajik, ⁸ ¹ Dpt. of Hemato-Oncology, Faculty of Medicine and Dentistry, Palacky University and University Hospital Olomouc, Olomouc, Czech Republic, ² Department of Hematooncology, University Hospital, Olomouc, Olomouc, Czech Republic, ³ Department of Immunology, Faculty of Medicine and Dentistry, Palacky University Olomouc and University Hospital Olomouc, Olomouc, Czech Republic, Olomouc, Czech Republic, ⁴ Faculty of Medicine and Dentistry, Palacky University and University Hospital Olomouc, Olomouc, Czech Republic, ⁵ Department of Clinical and Molecular Pathology, Faculty of Medicine and Dentistry, Palacky University and University Hospital Olomouc, Olomouc, Czech Republic, ⁶ Department of Nuclear Medicine, Faculty of Medicine and Dentistry, Palacky University Olomouc and University Hospital Olomouc, Olomouc, Czech Republic, Olomouc, Czech Republic, ⁷ Agel Laboratories, Novy Jicin, Czech Republic, ⁸ Faculty Hospital Olomouc, Olomouc, Czech Republic
2170	Validation of the BALL score to predict OS in R/R CLL patients treated with ibrutinib: a retrospective study from the FILO group
	Loic Ysebaert (Primary Presenter), ¹ Emmanuelle Ferrant, ² Anne Quinquenel, ³ Alice Teste, ⁴ Aline Clavert, ⁵ Annie Brion, ⁶ Laribi Kamel, ⁷ PEGOURIE Brigitte, ⁸ Romain Guièze, ⁹ Anne-Sophie Michallet, ¹⁰ ¹ Institut Universitaire du Cancer de Toulouse, Toulouse, France, ² CH LYON SUD, Pierre-Benite, France, ³ CHU Reims, Reims, France, ⁴ CHU CLERMONT FERRAND, France, ⁵ CHU ANGERS, ANGERS, France, ⁶ Chu Besancon, Besancon, France, ⁷ CH Le mans, Le mans, France, ⁸ Grenoble university hospital, grenoble, France, ⁹ Service d'Hématologie, Clermont-Ferrand, France, ¹⁰ Centre Léon Bérard, Lyon, France
2171	Gene expression profiles of CXCR4/CD5 fractions in lymph node and peripheral blood
	Xiao-Jie Yan (Primary Presenter), ¹ Shih-Shih Chen, ² Florencia Palacios, ² Thomas M Herndon, ³ Clare Sun, ⁴ Adrian Wiestner, ⁵ Kanti Rai, ⁶ Nicholas

	Chiorazzi, ² ¹ Feinstein Institute for Medical Research, Manhasset, NY, United States, ² The Feinstein Institute for Medical Research, Manhasset, New York, United States, ³ Uniformed Services University, Bethesda, MD, United States, ⁴ National Heart, Lung, and Blood Institute, Bethesda, MD, United States, ⁵ NHLBI, NIH, Bethesda, Maryland, United States, ⁶ The Feinstein Institute for Medical Research/Hofstra Northwell School of Medicine/North Shore University Hospital and Long Island Jewish Medical Center, Northwell Health, New Hyde Park, New York, United States
2172	Biology and targeting of mutant p53 in CLL
	Janani Ravikrishnan (Primary Presenter), ¹ Tzung Huei Lai, ² Elizabeth Muhowski, ¹ Lindsey Brinton, ² Katie Williams, ³ James Blachly, ³ Hatice Gulcin Ozer, ³ John C. Byrd, ⁴ Rosa Lapalombella, ³ Jennifer Woyach, ⁴ Deepa Sampath, ³ ¹ The Ohio State University, United States, ² The Ohio State University, Columbus, OH, United States, ³ The Ohio State University, Columbus, Ohio, United States, ⁴ The Ohio State University Comprehensive Cancer Center, Columbus, Ohio, United States
2173	B-cell receptor repertoire sequencing and bioinformatic analysis applied to patients with chronic lymphocytic leukemia
	Alicia Serrano-Alcala, ¹ Azahara Maria Fuentes-Trillo (Primary Presenter), ² BLANCA FERRER LORES MARIA JOSE TEROL-CASTERA, ³ Blanca Natividad Navarro-Cubells, ⁴ JAVIER FELIPE CHAVES, ⁵ ¹ CLINIC UNIVERSITY HOSPITAL, RESEARCH INSTITUTE INCLIVA, UNIVERSITY OF VALENCIA, Valencia, Spain, ² INCLIVA Research Institute, University of Valencia, Valencia, Spain, ³ Hospital Clínico, INCLIVA Research Institute, University of Valencia, VALENCIA, Spain, ⁴ Hospital Clínico, INCLIVA Research Institute, University of Valencia, Madrid, Spain, ⁵ INCLIVA Research Institute, University of Valencia, VALENCIA, Spain
2174	Using CytoGPS to identify rare cytogenetic abnormalities in CLL from historical karyotype data
	Kevin Coombes (Primary Presenter), ¹ Zachary Abrams, ² Suli Li, ³ Caitlin Coombes, ⁴ Lynne Abruzzo, ⁵ ¹ The Ohio State University Wexner Medical Center, Columbus, Ohio, United States, ² Department of Biomedical Informatics, The Ohio State University, Columbus, OH, United States, ³ Ohio State University, Columbus, OH, United States, ⁴ The Ohio State University Wexner Medical Center, Columbus, OH, United States, ⁵ The Ohio State University, Columbus, OH, United States
2175	NGS design for the integrated analysis of genetic mutations, copy number alterations, IGHV, and somatic hypermutation of IGHV in CLL
	Miguel Alcoceba (Primary Presenter), ¹ María García-Álvarez, ² Anna Puiggros, ³ Luis Espinosa-Hevia, ⁴ Andrea Llonín, ⁵ Almudena Navarro, ⁶ Jose María Bastida, ¹ Gutiérrez Norma Jose A. Marco, ⁷ Blanca Espinet, ⁸ García-Sanz Ramón Marcos González Díaz, ⁹ ¹ University Hospital of Salamanca (HUS-IBSAL), and CIBERONC, Salamanca, Spain, ² University Hospital of

	Salamanca, SALAMANCA, Spain, ³ Fundació IMIM-Hospital del Mar, Barcelona, Spain, ⁴ University Hospital Puerto de Hierro-Majadahonda, Madrid, Spain, ⁵ Hospital del Mar/PRBB, Barcelona, Spain, ⁶ IBSAL-Hospital Universitario de Salamanca, Salamanca, Salamanca, Spain, ⁷ Hospital Puerta de Hierro, Majadahonda, Spain, ⁸ Institut Hospital del Mar d'Investigacions Mèdiques (IMIM)-Hospital del Mar, Barcelona, Spain, ⁹ University Hospital, IBSAL-Salamanca, Centro de Investigación del Cáncer and CIBERONC, University of Salamanca, Salamanca, Spain
2176	A new retroviral method for primary cells to study clonal evolution in CLL
	Maurizio Mangolini (Primary Presenter), Wellcome Trust/MRC Cambridge Stem Cell Institute & Department of Haematology, University of Cambridge, Cambridge, United Kingdom, United Kingdom
2177	A single centre cohort study on the impact of bruton tyrosine kinase (BTK) inhibition on immunoglobulin levels, molecular prognostic markers and hospital admissions in chronic lymphocytic leukaemia (CLL) patients
	Hwai Jing Hiew (Primary Presenter), ¹ Zadi Davis, ¹ Samuel Pell, ² Siyamini Vythilingam, ¹ Neil McIver-Brown, ¹ Renata Walewska, ¹ Helen McCarthy, ³ , ¹ Royal Bournemouth Hospital, Bournemouth, United Kingdom, ² Royal Bournemouth Hospital, United Kingdom, ³ Royal Bournemouth General Hospital, Bournemouth, United Kingdom
2179	Ibrutinib treatment leads to H3K27ac redistribution in chronic lymphocytic leukemia
	Adam Lambe, ¹ Nicolai K.H. Barth, ² Nikos Papakonstantinou Charalampos Xanthopoulos, ³ Maria Gounari, ⁴ KOSTAS STAMATOPOULOS, ⁵ Leila Taher, ⁶ Efterpi Kostareli (Primary Presenter), ⁷ , ¹ The Wellcome-Wolfson Institute for Experimental Medicine, Queen's University of Belfast, Belfast, Belfast, United Kingdom, ² Friedrich-Alexander-Universität Erlangen-Nürnberg, erlangen, Germany, ³ The Wellcome-Wolfson Institute for Experimental Medicine, Queen's University of Belfast, Belfast, United Kingdom, ⁴ Institute of Applied Biosciences, CERTH, Thessaloniki, Greece, ⁵ Institute of Applied Biosciences, Thessaloniki, Greece, ⁶ Division of Bioinformatics, Department of Biology, Friedrich-Alexander-Universität Erlangen-Nürnberg, Erlangen, Erlangen, Germany, ⁷ Queen's University Belfast, Wellcome-Wolfson Institute For Experimental Medicine, Belfast, United Kingdom
2180	Highly responsive B-cell receptor induced by constitutively active Lyn kinase contributes moderately to CLL progression in vivo
	Viktoria Kohlhas (Primary Presenter), ¹ Phuong-Hien Nguyen, ² Michael Hallek, ³ , ¹ University Hospital of Cologne, Cologne, Germany, ² University of Cologne, Cologne, Germany, ³ University of Cologne, Faculty of Medicine and University Hospital of Cologne, Department 1 of Internal Medicine and German CLL Study Group, Cologne, Germany

2181	Monoclonal gammopathy, immunoglobulin levels and hypogammaglobulinemia as prognostic factors in patients with chronic lymphocytic leukemia: a retrospective multicentric experience
	<p>Andrea Corbingi (Primary Presenter),¹ Idanna Innocenti Annamaria Tomasso,² Raffaella Pasquale,³ Andrea Visentin,⁴ Marzia Varettoni,⁵ Francesco Autore Francesca Morelli,⁶ Livio Trentin,⁷ Gianluigi Reda,⁸ Luca Laurenti,⁹ ¹Università Cattolica del Sacro Cuore, Roma, Italy, ²Università Cattolica del Sacro Cuore, Campobasso, Italy, ³Fondazione IRCCS Ca'Granda, Ospedale Maggiore Policlinico, Milan, Italy, ⁴Università degli Studi di Padova, Padova, Italy, ⁵Fondazione IRCCS, Policlinico San Matteo, Pavia, Italy, ⁶UCSC, Rome, Italy, ⁷University of Padova, Padova, Italy, ⁸IRCSS FONDAZIONE CA GRANDA, Milano, Italy, ⁹Catholic University of the Sacred Heart, A. Gemelli Policlinic, Rome, Italy</p>
2182	High absolute monocyte count at diagnosis identifies a subset of patients with shorter time to first treatment among low risk CLL-IPI
	<p>Maria Victoria Irigoien,¹ Ana Carolina Oliver,² Victoria Remedi,³ Ana Ines Landoni,⁴ Maria Elena Marquez,⁵ Angimar Uriepero,⁶ Gimena Dos Santos (Primary Presenter),⁷ Raul Gabus,⁸ Lilian Diaz,⁹ Pablo Oppezco,¹⁰ Cecilia Guillermo,¹¹ ¹Hospital de Clinicas, Montevideo, Uruguay, ²Hospital de Clínicas, Montevideo, Uruguay, Montevideo, Uruguay, ³Hospital Maciel, ASSE, Montevideo, Uruguay, ⁴Hospital maciel, Montevideo, Uruguay, ⁵Institut Pasteur de Montevideo, Research Laboratory on Chronic Lymphocytic Leukemia. Instituto Venezolano de Investigaciones Científicas, Centro de Medicina Experimental., Montevideo, Uruguay, ⁶Institut Pasteur de Montevideo, Research Laboratory on Chronic Lymphocytic Leukemia., Montevideo, Uruguay, ⁷Hospital de Clínicas, Cátedra de Hematología, Montevideo, Uruguay, ⁸Hospital Maciel, ASSE, San Diego, California, United States, ⁹Hospital de Clínicas, Universidad de la República, Montevideo, Uruguay, ¹⁰Institute Pasteur de Montevideo, Research Laboratory on Chronic Lymphocytic Leukemia, Montevideo, Uruguay, ¹¹Hematology Department, Hospital de Clinicas, Montevideo, Uruguay</p>
2183	Elucidation of factors enhancing the expression of CD20 and thereby efficiency of CD20 monoclonal antibodies through epigenetic drug screening of resistant CLL cells
	<p>Veronika Kozlova,¹ Aneta Ledererova,² Veronika Mancikova,² Jiri Mayer,³ Sarka Pospisilova,⁴ Michael Doubek,⁵ Michal Smida (Primary Presenter),², ¹Veronika Kozlová, Brno, Czech Republic, ²Masaryk University, Brno, Czech Republic, ³Department of Internal Medicine, Hematology and Oncology, University Hospital Brno, Jihlavska, Czech Republic, ⁴CEITEC Masaryk University; Department of Internal Medicine - Hematology and Oncology, University Hospital Brno and Medical Faculty MU, Brno, Czech Republic, ⁵University Hospital Brno, Brno, Czech Republic</p>

2184	Efficacy of the BCL2 inhibitor in CLL patients who progressed after B-cell receptor inhibitors: a retrospective multicenter Italian experience outside clinical trials
	<p>Idanna Innocenti Francesca Morelli,¹ Francesco Autore Alfonso Piciocchi,² Anna Frustaci,³ Francesca Romana Mauro,⁴ Luana Schiattone,⁵ Livio Trentin,⁶ Giovanni Del Poeta,⁷ Gianluigi Reda,⁸ Gian Matteo Rigolin,⁹ Adalberto Ibatici,¹⁰ Stefania Ciolli,¹¹ Marta Coscia,¹² Paolo Sportoletti,¹³ Roberta Murru,¹⁴ Luciano Levato,¹⁵ Massimo Gentile Giovanni D'Arena Maria Rosaria Villa Raffaele Fontana Alessandra Tedeschi Lydia Scarfo Antonio Cuneo Robin Foà Luca Laurenti (Primary Presenter), ¹UCSC, Rome, Italy, ²Italian Group for Adult Hematologic Diseases (GIMEMA), Data Center, Rome, Italy, Italy, ³Hematology, Niguarda Cancer Center, ASST Grande Ospedale Metropolitano Niguarda, Milan, Italy, Milan, Italy, ⁴Università Sapienza of Rome, Rome, Italy, ⁵Università Vita-Salute and IRCCS Ospedale San Raffaele, Italy, ⁶Hematology and Clinical Immunology, Department of Medicine, Padova, PADOVA, Italy, ⁷Università degli Studi di Roma, Roma, Italy, ⁸IRCSS FONDAZIONE CA GRANDA, Milano, Italy, ⁹Azienda Ospedaliero Universitaria Arcispedale S. Anna, Ferrara, Italy, ¹⁰IRCCS AOU San Martino-IST, Genova, Italy, ¹¹University of Florence, Florence, Italy, Firenze, Italy, ¹²University of Torino, TORINO, Italy, ¹³Hematology and Clinical Immunology, University of Perugia, Perugia, perugia, Italy, ¹⁴A. Businco Hospital, Cagliari, Italy, ¹⁵Azienda Ospedaliera Pugliese-Ciaccio, Department Hematology-Oncology, Catanzaro, Italy Hematology Section, Cosenza Hospital, Cosenza, Cosenza, Italy Hematology and Stem cell Transplantation Unit, IRCCS CROB, Referral Cancer Center of Basilicata, Rionero in Vulture, Italy OSPEDALE LORETO MARE, NAPOLI, Italy AOU San Giovanni di Dio e Ruggi d'Aragona, Ematologia, Salerno, Italy Niguarda Cancer Center, Milano, Italy Università Vita-Salute San Raffaele and IRCCS Ospedale San Raffaele, Milano, Italy St. Anna University Hospital, Ferrara, Italy Università La Sapienza, Roma, Italy, Roma, Italy Catholic University of the Sacred Heart, A. Gemelli Policlinic, Rome, Italy</p>
2185	Intraclonal analysis of various subpopulations defined by the reciprocal levels of CXCR4 and CD5 highlight the complex kinetic patterns of CLL B-cells
	<p>Anita Ng (Primary Presenter),¹ Mark Fitch,² Andrea Nicola Mazzaello,³ Gerardo Ferrer,³ Jacqueline Barrientos,⁴ Kanti Rai,⁵ Marc Hellerstein,² Nicholas Chiorazzi,³, ¹The Feinstein Institute for Medical Research, Manhasset, NY, United States, ²University of California at Berkeley, Berkeley, CA, United States, ³The Feinstein Institute for Medical Research, Manhasset, New York, United States, ⁴Zucker School of Medicine at Hofstra Northwell, New Hyde Park, New York, United States, ⁵The Feinstein Institute for Medical Research/Hofstra Northwell School of Medicine/North Shore University Hospital and Long Island Jewish Medical Center, Northwell Health, New Hyde Park, New York, United States</p>
2186	A phase I study of a selective PI3Kδ inhibitor YY-20394 in patients with relapsed or refractory B-cell malignancies

	<p>Junyuan Qi,¹ Yuqin Song,² Bong Jiang,³ Meifeng Tu,² Lingyan Ping,² Zengjun Li,⁴ Jun Zhu,² Yuanyuan Xu,⁵ Hanying Bao,⁵ Zusheng Xu,⁵ Lugui Qiu (Primary Presenter),⁶ ¹Blood Disease Hospital, Chinese Academy of Medical Science and Peking Union Medical College, China, ²Key Laboratory of Carcinogenesis and Translational Research (Ministry of Education/Beijing), Department of Lymphoma, Peking University Cancer Hospital & Institute, China, ³State Key Laboratory of Experimental Hematology, Blood Disease Hospital, Chinese Academy of Medical Science and Peking Union Medical College, China, ⁴Blood Disease Hospital, Chinese Academy of Medical Science, Tianjin, China, ⁵Shanghai Yingli Pharmaceutical Co., Ltd., China, ⁶Institute of Hematology and Blood Disease Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Tianjin, China</p>
2187	<p>A population based-cohort review chronic lymphocytic leukemia (CLL) in a single Canadian centre</p>
	<p>James Johnston,¹ Oliver Bucher,² Bryan Tordon,² Zoann Nugent,² Ivan Landego,³ Kelsey Uminski,⁴ Nicole Bourrier,³ Kevin Brown,⁵ Mandy Squires,⁶ Erin Streu,² Aaron Marshall,⁷ Salah Mahmud,³ Spencer Gibson,⁸ Versha Banerji (Primary Presenter),⁹ ¹University of Manitoba/CancerCare Manitoba, Winnipeg, MB, Canada, ²CancerCare Manitoba, Winnipeg, MB, Canada, ³University of Manitoba/CancerCare Manitoba, Winnipeg, Manitoba, Canada, ⁴University of Manitoba, Winnipeg, Manitoba, Canada, ⁵CancerCare Manitoba/University of Manitoba, Winnipeg, MB, Canada, ⁶CancerCare Manitoba, Winnipeg, Manitoba, Canada, ⁷University of Manitoba, Winnipeg, MB, Canada, ⁸Research Institute in Oncology and Hematology, Winnipeg, Manitoba, Canada, ⁹Research Institute of Oncology and Hematology, CancerCare Manitoba, Winnipeg, Manitoba, Canada</p>
2188	<p>Leukemia specific delivery of miR29b induces epigenetic reprogramming with cell cycle arrest and therapeutic benefit in Chronic Lymphocytic Leukemia</p>
	<p>Chi-Ling Chiang,¹ Swagata Goswami,² Frank Frizzera,² Zhiliang Xie,² pearly yan,³ Ralf Bundschuh,⁴ Sivasubramanian Baskar,⁵ Rajeswaran Mani,¹ Xiaokui Mo,⁶ Christoph Rader,⁷ Mitch Phelps,⁸ Guido Marcucci,⁹ John C. Byrd,¹⁰ L. James Lee,⁶ Natarajan Muthusamy (Primary Presenter),¹ ¹The Ohio State University, Columbus, Ohio, United States, ²Ohio State University, Columbus, Ohio, United States, ³The Ohio State University Comprehensive Cancer Cen, Columbus, Ohio, United States, ⁴The Ohio State University, United States, ⁵National Institutes of Health, Bethesda, MD, United States, ⁶The Ohio State University, Columbus, OH, United States, ⁷The Scripps Research Institute, Jupiter, Florida, United States, ⁸OSU-The Ohio State University, Powell, Ohio, United States, ⁹City of Hope, Duarte, CA, United States, ¹⁰The Ohio State University Comprehensive Cancer Center, Columbus, Ohio, United States</p>
2190	<p>The role of molecular genetic examination in differential diagnosis and prognostic prediction in patients with B-cell chronic lymphoproliferative disorders: a retrospective study of 1592 patients</p>

	<p>Yuting Yan (Primary Presenter),¹ yi wang,¹ Wenjie Xiong,² Ying Yu,³ Tingyu wang,¹ Rui Lv,¹ Zengjun Li,² Shuhua Yi,² Lugui Qiu,² ¹Institute of Hematology & Blood Diseases Hospital, Chinese Academy of Medical Science & Peking Union Medical College, Tianjin, China, ²Institute of Hematology and Blood Disease Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Tianjin, China, ³Institute of Hematology & Blood Diseases Hospital, Chinese Academy of Medical Sciences & Peking Union Medical College, Tianjin, China, China</p>
2191	<p>Ibrutinib, Fludarabine, Cyclophosphamide, and Obinutuzumab (iFCG) for First-line Treatment of patients with CLL with Mutated IGHV and without TP53 Aberrations</p>
	<p>Nitin Jain (Primary Presenter),¹ Philip Thompson,² Jan A. Burger,³ Alessandra Ferrajoli,⁴ Koichi Takahashi,⁵ Zeev Estrov,¹ Gautam Borthakur,⁶ Prithviraj Bose,⁷ Tapan Kadia,⁴ Naveen Pemmaraju,⁸ Koji Sasaki,⁸ Naveen Garg,⁸ Xuemei Wang,⁴ Rashmi Kangal-Shamanna,⁸ Keyur Patel,⁹ Jeffrey Jorgensen,⁸ Wang Sa,⁴ William Plunkett,⁷ Varsha Gandhi,¹ Hagop Kantarjian,⁷ Susan O'Brien,¹⁰ Michael Keating,¹¹ William Wierda,¹² ¹The University of Texas MD Anderson Cancer Center, Houston, Texas, United States, ²The University of Texas M.D. Anderson Cancer Center, HOUSTON, TX, United States, ³University of Texas, MD Anderson Cancer Center, Houston, Texas, United States, ⁴The University of Texas MD Anderson Cancer Center, Houston, TX, United States, ⁵UT MD Anderson Cancer Center, Houston, Texas, United States, ⁶MD Anderson Cancer Center, Houston, TX, United States, ⁷MD Anderson Cancer Center, Houston, Texas, United States, ⁸The University of Texas MD Anderson Cancer Center, United States, ⁹UT MD Anderson Cancer Center, Houston, TX, United States, ¹⁰Chao Family Comprehensive Cancer Center, University of California, Orange, California, United States, ¹¹University of Texas, MD Anderson Cancer Center, Houston, TX, United States, ¹²University of Texas MD Anderson, Houston, Texas, United States</p>
2192	<p>Reactive oxygen species directly influence surface membrane CXCR4 levels and survival of chronic lymphocytic leukemia in vitro</p>
	<p>Eric Sturgill (Primary Presenter),¹ Nicholas Chiorazzi,² Kanti Rai,³ Jonathan E. Kolitz,⁴ ¹Feinstein Institute for Medical Research, Manhasset, NY, United States, ²The Feinstein Institute for Medical Research, Manhasset, New York, United States, ³The Feinstein Institute for Medical Research/Hofstra Northwell School of Medicine/North Shore University Hospital and Long Island Jewish Medical Center, Northwell Health, New Hyde Park, New York, United States, ⁴The Feinstein Institute for Medical Research/Hofstra Northwell School of Medicine/North Shore University Hospital and Long Island Jewish Medical Center, Northwell Health, New York, New York, United States</p>
2193	<p>IL10-producing CD38hi B-regulatory cells drive the immunosuppressive microenvironment in CLL and can be targeted with anti-CD38 immunotherapy</p>

	Alak Manna (Primary Presenter), ¹ Laura J. Lewis-Tuffin, ¹ Taimur Sher, ¹ Sikander Ailawadhi, ¹ Asher Chanan-Khan, ² Aneel Paulus, ³ ¹ Mayo Clinic, Jacksonville, Florida, United States, ² Division of Hematology, Mayo Clinic Cancer Center, Jacksonville, Florida, United States, ³ Mayo Clinic in Florida, Jacksonville, FL, United States
2194	Cooperation between SF3B1 mutation and ATM deletion in the development of CLL
	Lili Wang (Primary Presenter), ¹ Martina Cusan, ² Shanye Yin, ³ Meiling Jin Catherine Gutierrez, ⁴ Elisa ten Hacken, ⁵ Sarah Herman, ⁶ Laura Rassenti, ⁷ Emanuela Ghia, ⁷ Thomas J. Kipps, ⁸ Adrian Wiestner, ⁹ Gad Getz, ¹⁰ Tanya Siddiqi, ¹¹ Steven Rosen, ¹² Catherine J. Wu, ⁵ ¹ City of Hope, Monrovia, CA, United States, ² Beckman Research Institute, City of Hope, Monrovia, California, United States, ³ Harvard Medical School, United States, ⁴ Harvard Medical School, Boston, MA, United States, ⁵ Dana-Farber Cancer Institute, Boston, Massachusetts, United States, ⁶ National Institutes of Health, Bethesda, Maryland, United States, ⁷ University of California, San Diego, La Jolla, CA, United States, ⁸ UC San Diego, Moores Cancer Center, La Jolla, California, United States, ⁹ NHLBI, NIH, Bethesda, Maryland, United States, ¹⁰ Broad Institute, Cambridge, Massachusetts, United States, ¹¹ City of Hope National Medical Center, Duarte, California, United States, ¹² City of Hope, Duarte, California, United States
2196	Distinct mutation spectrum for Chinese chronic lymphocytic leukemia
	Yuting Yan (Primary Presenter), ¹ Ying Yu, ² Wenjie Xiong, ³ yi wang, ¹ Tingyu wang, ¹ Rui Lv, ¹ Zengjun Li, ³ Shuhua Yi, ³ Lugui Qiu, ³ ¹ Institute of Hematology & Blood Diseases Hospital, Chinese Academy of Medical Science & Peking Union Medical College, Tianjin, China, ² Institute of Hematology & Blood Diseases Hospital, Chinese Academy of Medical Sciences & Peking Union Medical College, Tianjin, China, China, ³ Institute of Hematology and Blood Disease Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Tianjin, China
2197	The spliceosome inhibitor E7107 induces a dose-dependent cytotoxicity in CLL cells and produces aberrantly spliced transcripts and protein products of p53 pathway genes
	Erhan Aptullahoglu (Primary Presenter), ¹ Jonathan Wallis, ² Helen Marr, ³ Scott Marshall, ⁴ Elaine Willmore, ¹ John Lunec, ¹ ¹ Newcastle University, Newcastle upon Tyne, United Kingdom, ² The Freeman Hospital, Newcastle upon Tyne NHS Foundation Trust, Newcastle upon Tyne, United Kingdom, ³ The Freeman Hospital, The Newcastle upon Tyne Hospitals NHS Foundation Trust, Newcastle upon Tyne, United Kingdom, ⁴ South Tyneside and Sunderland Hospitals NHS FT, Birmingham, United Kingdom
2198	Sp1-mediated gene regulation in chronic lymphocytic leukaemia cells

	Alzahra Abdullah Alshayeb (Primary Presenter), University of Liverpool, Liverpool, Merseyside, United Kingdom
2199	Fate-mapping reveals niche-specific stroma-leukemia interactions during chronic lymphocytic leukemia progression
	andrea brendolan (Primary Presenter), San Raffaele Scientific Institute and Ospedale San Raffaele , Milano, Milano, Italy
2200	Chronic lymphocytic leukemia cells impair mitochondrial fitness in T cells which can be rescued by CD40-stimulation of the CLL cells
	Armando van Bruggen, ¹ Fleur Peters (Primary Presenter), ² Anne W.J. Martens, ³ Tom Hofland, ⁴ Sanne Tonino, ¹ Eric Eldering, ⁵ Mark-David Levin, ⁶ Carl June, ⁷ J. Joseph Melenhorst, ⁸ Rianne van der Windt, ⁵ Arnon Kater, ⁹ ¹ Academic Medical Center, Amsterdam, Netherlands, ² Amsterdam UMC, Amsterdam Medical Center, Amsterdam, Netherlands, ³ Amsterdam UMC, Amsterdam, Netherlands, ⁴ Academic Medical Center, Amsterdam, Amsterdam, Netherlands, ⁵ Academic Medical Center Amsterdam, Amsterdam, Netherlands, ⁶ Albert Schweitzer Hospital, Dordrecht, Dordrecht, Netherlands, ⁷ University of Pennsylvania, University of Pennsylvania, PA, United States, ⁸ Center for Cellular Immunotherapies, University of Pennsylvania, Philadelphia, PA, United States, ⁹ University of Amsterdam, Amstelveen, Netherlands
2203	ZIPK inhibition impairs pre-mRNA processing of critical pro-proliferative genes in chronic lymphocytic leukaemia
	Fraser Thomas (Primary Presenter), ¹ Katherine Holmes, ² Sarah Kreuz, ¹ Peter Hillmen, ³ Pascal Lefevre, ¹ ¹ University of Leeds, Leeds, United Kingdom, ² St James's University Hospital, Leeds, United Kingdom, ³ The Leeds Teaching Hospitals, St. James University, Leeds, United Kingdom
2264	A novel strategy of immunomodulation in chronic lymphocytic leukemia
	Maria Teresa Sabrina Bertilaccio (Primary Presenter), ¹ Priyanka Banerjee, ² Ronghua zhang Cristina Ivan, ³ Giovanni Galletti, ⁴ Karen Clise-Dwyer, ⁵ Federica Barbaglio, ⁶ Lydia Scarfo, ⁷ Miguel Aracil, ⁸ Christian KLEIN, ⁹ William Wierda, ¹⁰ William Plunkett, ¹¹ Federico Caligaris-Cappio, ¹² Varsha Gandhi, ¹ Michael Keating, ¹³ ¹ The University of Texas MD Anderson Cancer Center, Houston, Texas, United States, ² Department of Experimental Therapeutics, The University of Texas MD Anderson Cancer Center, Houston, Texas, USA, United States, ³ UT MD Anderson CC, Houston, Texas, United States, ⁴ The University of Texas MD Anderson Cancer Center, Houston, TX, United States, ⁵ The University of Texas MD Anderson Cancer Center, United States, ⁶ IRCCS OSPEDALE SAN RAFFAELE, Milano, Italy, ⁷ Università Vita-Salute San Raffaele and IRCCS Ospedale San Raffaele, Milano, Italy, ⁸ PharmaMar, Colmenar Viejo, Spain, ⁹ ROCHE GLYCART AG, SCHLIEREN, Switzerland, ¹⁰ University of Texas MD Anderson, Houston, Texas, United States, ¹¹ MD Anderson Cancer Center, Houston, Texas, United States, ¹² Fondazione AIRC,

	Milan, Italy, ¹³ University of Texas, MD Anderson Cancer Center, Houston, TX, United States
2266	Time-limited venetoclax-rituximab (VenR) in relapsed/refractory (R/R) chronic lymphocytic leukemia (CLL): first presentation of 4-year data from the MURANO study
	John F. Seymour (Primary Presenter), ¹ Thomas J. Kipps, ² Barbara Eichhorst, ³ Peter Hillmen, ⁴ James D’Rozario, ⁵ Sarit Assouline, ⁶ Carolyn Owen, ⁷ Tadeusz Robak, ⁸ Javier de la Serna, ⁹ Ulrich Jäger, ¹⁰ Guillaume Cartron, ¹¹ Marco Montillo, ¹² Nicole Lamanna, ¹³ Su Young Kim, ¹⁴ Jenny Wu, ¹⁵ Jiang Yanwen, ¹⁵ Jue Wang, ¹⁵ Marcus Lefebure Michelle Boyer Kathryn Humphrey Arnon Kater, ¹ Peter MacCallum Cancer Centre, Melbourne, Australia, ² UC San Diego, Moores Cancer Center, La Jolla, California, United States, ³ University Hospital of Cologne, Cologne, Germany, ⁴ The Leeds Teaching Hospitals, St. James University, Leeds, United Kingdom, ⁵ The John Curtin School of Medical Research, Australian National University,, Canberra, Australia, ⁶ Segal Cancer Center, Lady Davis Institute, Jewish General Hospital, Montreal, Canada, ⁷ University of Calgary, Calgary, Alberta, Canada, ⁸ WOJEWÓDZKIE WIELOSPECJALISTYCZNE CENTRUM ONKOLOGII I TRAUMATOLOGII IM. M. KOPERNIKA W ŁODZI, Lodz, Poland, ⁹ Hospital Universitario 12 de Octubre, Madrid, Spain, ¹⁰ Division of Hematology and Hemostaeology, Medical University of Vienna, Vienna, Austria, ¹¹ CHU Montpellier, Montpellier, France, ¹² Niguarda Hospital, Milano, Italy, ¹³ Columbia University Medical Center, New York, New York, United States, ¹⁴ AbbVie, Lake Bluff, Illinois, United States, ¹⁵ Genentech, Inc., South San Francisco, United StatesRoche Products Limited, Welwyn Garden City, United KingdomRoche/Genentech, Welwyn Garden City, United KingdomUniversity of Amsterdam, Amstelveen, Netherlands