24th Annual John Goldman Conference on Chronic Myeloid Leukemia: Biology and Therapy

October 21-23, 2022
Mandelieu-La Napoule, France

Chairs: J. Cortes, T.P. Hughes, D.S. Krause
Co-Organizers: R. Bhatia, T. Brümmendorf, M. Copland, M. Deininger, O. Hantschel, F-X. Mahon, D. Perrotti, J. Radich, D. Réa

Advisory Committee: J. Apperley, S. Branford, C. Gambacorti-Passerini, F. Guilhot, R. Hehlmann, P. Laneuville, G. Saglio, C. Schiffer, S. Soverini, P. Valent, R. Van Etten

Friday, October 21, 2022

07:30	**Registration and *Poster Mounting***	
08:00-08:10	**WELCOME TO MANDELIEU**	Jorge Cortes (Augusta)
08:10-08:20	**iCMLf - A REVIEW**	Tim P. Hughes (Adelaide)
08:20-09:50	**SCIENTIFIC SESSION 1: TOP SCORING ABSTRACTS 2022** *(12' + 3' discussion)* **Chairs:** Katarzyna Piwocka (Warsaw), Johan Richter (Lund), Martha M. Zarou (Glasgow)	
08:20-08:35	A shared molecular mechanism among blastic transformation, residual disease, and primary TKI resistance in CML - MS4A3 suppression	Helong Zhao (Milwaukee)
08:35-08:50	Sensitive measurement of residual disease in granulocytes is predictive of relapse after therapy cessation in CML patients	Ilaria S. Pagani (Adelaide)
08:50-09:05	Metabolic adaptation to tyrosine kinase inhibition in CML stem cells	Ravi Bhatia (Birmingham, USA)
09:05-09:20	Asciminib provides durable molecular responses in patients with CML in chronic phase (CML-CP) with the T315I mutation: updated efficacy and safety data from a phase I trial	Fabian Lang (Frankfurt)
09:20-09:35	Glucose anaplerosis Is a BCR-ABL Independent Metabolic Vulnerability in CML	Kevin Rattigan (Glasgow)
09:35-09:50	BCR::ABL1 Digital PCR identifies chronic phase CML patients suitable for an early TKI discontinuation attempt: a patient-level meta-analysis	Camille C.B. Kockerols (Dordrecht)
09:50-10:20	***Coffee Break***	

10:20-10:40	**TESSA HOLYOAKE MEMORIAL LECTURE: SPECIAL LECTURE** *(15' + 5' discussion)* **Chair:** Ravi Bhatia (Birmingham, USA)	
10:20-10:35	Leukemia Stem cells (new ways of targeting, new technologies)	Andreas Trumpp (Heidelberg)
10:35-10:40	*Discussion*	
10:40-12:00	**SCIENTIFIC SESSION 2: STEM CELLS AND MICROENVIRONMENT** **Chair:** Vignir Helgason (Glasgow)	
10:40-10:55	***Keynote Presentation:*** A novel G0 marker identifies leukemic stem cells of CML which could be targeted by PD1/PDL1 antibodies or an IRAK inhibitor	Toshio Kitamura (Kobe)
10:55-11:00	*Discussion*	
	Selected Abstracts: *(12' + 3' discussion)*	
11:00-11:15	Single-cell multiomics reveals the stem and immune composition of stage progression in CML	Ya-Ching Hsieh (Glasgow)
11:15-11:30	BCR-ABL1 -dependent promotion of hematopoietic stem cells (HSC) and progenitors in an inducible embryonic stem cell (ESC) model	Jerome Artus (Villejuif)
11:30-11:45	The natural anticoagulant pathway impacts CML and B-ALL progression via remodeling of the extracellular matrix	Valentina R. Minciacchi (Frankfurt)
11:45-12:00	Modeling progression of CML using mutagenized patient-derived induced pluripotent stem cells (IPSCs)	Jusuf Imeri (Villejuif)
12:00-12:15	**JANET ROWLEY PRIZE PRESENTATION** **Presenter:** Michael Deininger (Milwaukee) **Awardee 2020:** Ravi Bhatia (Birmingham) **Awardee 2021:** Susan Branford (Adelaide) **Awardee 2022:** Oliver Hantschel (Marburg)	
12:15-12:35	**JANET ROWLEY PRIZE: SPECIAL LECTURE (2)** **Chair:** Michael Deininger (Milwaukee)	
12:15-12:30	Molecular mechanisms of BCR-ABL regulation and its inhibition by allosteric and orthosteric inhibitors	Oliver Hantschel (Marburg)
12:30-12:35	*Discussion*	
12:35-14:20	***Lunch and Poster Viewing***	

13:10-14:10	**SATELLITE SYMPOSIUM** **Mechanisms of resistance in CML: BCR::ABL1 mutations and beyond** **Chair:** Thomas Lion (Vienna) **Speakers:** Thomas Lion (Vienna), Simona Soverini (Bologna), Mhairi Copland (Glasgow) ***This symposium is organized and sponsored by Incyte***

14:20-14:40	**SPECIAL LECTURE (3):** **Chair:** Carsten Riether (Bern)	
14:20-14:35	Immunology aspects of cancer	Toni Ribas (Los Angeles) *(virtual)*
14:35-14:40	*Discussion*	
14:40-15:08	**BRIEF ORAL COMMUNICATIONS (BIOLOGY AND CLINICAL)** *(4 slides / 5' + 2' discussion)* **Chair:** Kendra Sweet (Tampa)	
14:40-14:47	Synthetic lethality in CML - targeting metabolism effectively complements TKI treatment	Lukas Häselbarth (Erlangen)
14:47-14:54	The rate of cellular energy production of muscle cells attenuated by carnitine intracellular deficiency was proved in vivo	Pavel Burda (Prague)
14:54-15:01	Restoration of Mir-185 in combination with BCR-ABL downregulation by therapeutic delivery of siRNA with polymeric carriers sensitizes drug resistant cells to TKIs	Athena Phoa (Vancouver)
15:01-15:08	Combined targeting of CML cells using tyrosine kinase and bone morphogenic protein inhibitors	Kudzai Nyamondo (Glasgow)
15:08-15:40	***Coffee Break***	
15:40-17:00	**SCIENTIFIC SESSION 3: METABOLISM AND NEW TARGETS** **Chair:** Tomasz Skorski (Philadelphia)	
15:40-15:55	***Keynote Presentation:*** Metabolomics in myeloid malignancies: DNA polymerase theta protects leukemia cells from metabolic-induced DNA damage	Tomasz Skorski (Philadelphia)
15:55-16:00	*Discussion*	
	Selected Abstracts: *(12' + 3' discussion)*	
16:00-16:15	Lomerizine blocks calcium ion influx to mitochondria and targets CML stem cells through inhibition of mitochondrial metabolism	Ahmed Khalaf (Glasgow)
16:15-16:30	High proportion of germline variants in pediatric CML	Manuela Krumbholz (Erlangen)
16:30-16:45	Combination of integrated stress response inhibitor with TKI has potential to eradicate leukemic cells with RAS/RAF/MAPK, STAT5 and PTPN11 mutation-mediated resistance	Katarzyna Piwocka (Warsaw)
16:45-17:00	Targeting a highly deregulated eIF4F translation initiation complex sensitizes IM-resistant cells to TKI and effectively suppresses BCR-ABL protein expression	Ryan Yen (Vancouver)

17:00-19:25	**MICHELE BACCARANI SPECIAL SYMPOSIUM** *(12' + 5' discussion)* **Chair:** Giuseppe Saglio (Turin)	
17:00-17:10	Introductory overview – concepts and challenges	
17:10-17:30	Champion in CML cooperative research	Rüdiger Hehlmann (Mannheim)
17:30-17:42	GIMEMA: past and ongoing contributions to CML research	Fausto Castagnetti (Bologna)
17:42-17:47	Discussion	
17:47-17:59	Current understanding mutation assessment and significance in CML	Simona Soverini (Bologna)
17:59-18:04	Discussion	
18:04-18:16	iCMLf Genomic Alliance – Goals and accomplishments through a global collaboration	Susan Branford (Adelaide)
18:16-18:21	Discussion	
18:21-18:33	Lessons learnt from EURO-Ski: where now	Francois Xavier Mahon (Bordeaux)
18:33-18:38	Discussion	
18:38-18:50	The LAST trial: the value of PRO after treatment discontinuation	Ehab Atallah (Milwaukee)
18:50-18:55	Discussion	
18:55 -19:25	General Discussion	

19:30 **Poster Viewing and Welcome Get-Together**
Mentored Poster Walk 1
Biology Poster Walk Leaders: Daniela Krause (Frankfurt), Tomasz Skorski (Philadelphia)
Clinical Poster Walk Leaders: Carlo Gambacorti-Passerini (Monza), Franck Nicolini (Lyon)

19:30 – 20:30	**CONCURRENT MEET-THE-EXPERT SESSIONS (pre-registration required)**	
	Leukemic stem cell biology	Andreas Trumpp (Heidelberg)
	New frontiers in drug development in cancer	Stefan Knapp (Frankfurt)

Saturday, October 22, 2022

08:00-10:00	**WORKSHOP FOR NON-CLINICAL SCIENTISTS #1** **ONCOLOGY/HEMATOLOGY DEGRADERS - DEGRADATION AS A STRATEGY AGAINST CANCER** **Chairs:** Oliver Hantschel (Marburg), Vignir Helgason (Glasgow)	
08:00-08:05	Introduction	Oliver Hantschel (Marburg), Vignir Helgason (Glasgow)

08:05-08:30	Validation of PROTACs as chemical tools and expanding the tool box of new E3 ligands	Stefan Knapp (Frankfurt)
08:30-08:40	Discussion	
08:40-09:05	Targeted protein degradation as a tool to probe non-kinase roles in CML	George Burslem (Philadelphia)
09:05-09:15	Discussion	
09:15-09:40	Targeted protein degradation in Ph-like ALL	Charles Mullighan (Memphis)
09:40-09:50	Discussion	*(virtual)*
09:50-10:00	Conclusion	

09:00 – 10:00	**CONCURRENT MEET-THE-EXPERT SESSIONS (pre-registration required)**	
	Management of advance stage CML	Mhairi Copland (Glasgow)
	Challenging scenarios for TFR	Susanne Saussele (Mannheim)
	Management of TKI adverse event	Jeff Lipton (Toronto)

10:00-10:30	***Coffee Break***	
10:30-11:50	**SCIENTIFIC SESSION 4: GENOMICS** **Chair:** Bing Carter (Houston)	
10:30-10:45	***Keynote Presentation:*** A single-cell atlas identifies pretreatment features of primary imatinib resistance in chronic myeloid leukemia	Sin Tiong Ong (Singapore)
10:45-10:50	*Discussion*	
	Selected Abstracts: *(12' + 3' discussion)*	
10:50-11:05	Pediatric CML presenting in de novo or secondary blast-phase - a comparison of clinical and genetic characteristics	Stephanie Sembill (Erlangen)
11:05-11:20	Relationship between telomere length and clonal hematopoiesis of indeterminate potential in patients with CML at 1st diagnosis and during follow-up under TKI therapy	Anna D. Doleschall (Aachen)
11:20-11:35	Identification of key microRNAs as predictive biomarkers of nilotinib response in CML: a sub-analysis of the enestxtnd clinical trial	Andrew Wu (Vancouver)
11:35-11:50	Deciphering the cooperative mechanism between asciminib and orthosteric inhibitors in stabilizing the inactive conformation of BCR-ABL1 compound mutants	Milad Rouhimoghadam (Milwaukee)

11:50-12:10	**ESH INTERNATIONAL JOHN GOLDMAN RESEARCH AWARD CEREMONY 2022**	
11:50-12:00	**Presenter:** Hervé Dombret (Paris), ESH President	
12:00-12:10	**Announcing the Awardee 2022:** Comprehensive and sensitive genomic characterisation of diverse mutation types associated with treatment resistance for patients with CML using an RNA-based model	Naranie Shanmuganathan (Adelaide) *(virtual)*
12:10-12:20	**ESH SCHOLARSHIP FUND AWARD CEREMONY** **LEUKAEMIA UK INTERNATIONAL SCHOLARSHIP** **Chair:** Nick Cross (Southampton)	
12:20-14:20	***Lunch and Poster Viewing***	

12:40-14:10	**SATELLITE SYMPOSIUM** **Tackling unmet needs in CML: What's next in the treatment algorithm?** **Chair:** Susanne Saussele (Mannheim) **Speakers:** Massimo Breccia (Rome), Valentin Garcia Gutiérrez (Madrid), Susanne Saussele (Mannheim) ***This symposium is organized and sponsored by touchIME***

14:20-14:40	**SPECIAL LECTURE (4):** **Chair:** Oliver Hantschel (Marburg)	
14:20-14:35	Cancer evolution ecosystems	Carlo Maley (Tempe)
14:35-14:40	*Discussion*	
14:40-16:00	**SCIENTIFIC SESSION 5: NEW DRUGS AND NEW STRATEGIES** **Chair:** Gianantonio Rosti (Meldola)	
14:40-14:55	***Keynote Presentation***: New drugs in CML: which, where and how	Valentin Garcia Gutiérrez (Madrid)
14:55-15:00	*Discussion*	
	Selected Abstracts**:** *(12' + 3' discussion)*	
15:00-15:15	Efficacy and safety results from ASCEMBL, a phase 3 study of asciminib vs bosutinib in patients with CML in chronic phase after ≥2 prior tyrosine kinase inhibitors: week 96 update	Andreas Hochhaus (Jena)
15:15-15:30	Post hoc analysis of responses to ponatinib in patients with chronic-phase CML by baseline BCR::ABL1 level and baseline mutation status in the optic trial	Philippe Rousselot (Le Chesnay)
15:30-15:45	Vodobatinib in chronic phase Ph+ CML - updated efficacy results	Jorge Cortes (Augusta)
15:45- 16:00	Dose modification dynamics of ponatinib in patients with chronic-phase CML from the PACE and optic trials	Gianantonio Rosti (Meldola)
16:00- 16:30	***Coffee Break***	

16:30-16:45	**JOHN GOLDMAN PRIZE PRESENTATION** **Presenter:** Robert Peter Gale (London) **Awardee 2020:** Jane Apperley (London) **Awardee 2021:** Giuseppe Saglio (Turin) **Awardee 2022:** Andreas Hochhaus (Jena)	
16:45-17:05	**JOHN GOLDMAN PRIZE: SPECIAL LECTURE (5)** **Chair:** Robert Peter Gale (London)	
16:45-17:00	Teamwork	Andreas Hochhaus (Jena)
17:00-17:05	*Discussion*	
17:05-18:25	**SCIENTIFIC SESSION 6: TFR AND PRO** **Chair:** David Ross (Adelaide)	
17:05-17:20	***Keynote Presentation:*** TFR and Pro: Where do we stand? Where to go?	Susanne Saussele (Mannheim)
17:20-17:25	*Discussion*	
	Selected Abstracts: *(12' + 3' discussion)*	
17:25-17:40	Final result of TKI discontinuation trial with dasatinib for 2nd attempt of TFR after failing 1st attempt with imatinib: TFR accomplished by dasatinib (TRAD) trial	Dennis Dong Hwan Kim (Toronto)
17:40-17:55	TFR after nilotinib or dasatinib 1st-line in chronic phase CML patients: characteristics and outcomes	Franck Nicolini (Lyon)
17:55-18:10	TFR in CML: ten years' experience in Bologna	Miriam Iezza (Bologna)
18:10-18:25	Long-term treatment outcome and health-related quality of life of patients with CML treated with TKIs: a single-center report	Hee Jeong Cho (Daegu)
18:25- 19:05	**DEBATE: WHAT IS MOST IMPORTANT FOR CML PERSISTENCE OF THE DISEASE? EXTRINSIC FACTORS OR INTRINSIC FACTORS?** **Chair:** Ravi Bhatia (Birmingham, USA)	
18:25-18:30	Introduction	
Audience votes		
18:30-18:40	Extrinsic	Daniela Krause (Frankfurt Am Main)
18:40-18:50	Intrinsic	Mirle Schemionek-Reinders (Aachen)
Audience votes again		
18:50-19:05	*Discussion*	
19:15	***Mentored Poster Walk 2*** **Biology Poster Walk Leaders:** Daniela Krause (Frankfurt), Tomasz Skorski (Philadelphia) **Clinical Poster Walk Leaders:** Carlo Gambacorti-Passerini (Monza), Franck Nicolini (Lyon)	

Sunday, October 23, 2022

07:00 - 08:00	**JMG CML FUN RUN** (Pre-registration required)	

09:00-11:00	**WORKSHOP FOR NON-CLINICAL SCIENTISTS #2** **3D GENOMICS AND NUCLEAR ORGANIZATION** **Chairs:** Michael Deininger (Milwaukee) and Jerry Radich (Seattle)	
09:00-09:05	Introduction	Michael Deininger (Milwaukee), Jerry Radich (Seattle) *(virtual)*
09:05-09:30	Next-generation cytogenomics in leukemia: opportunities for diagnosis and discovery	Steve Eacker (Seattle)
09:30-09:40	Discussion	
09:40-10:05	Evolution of the 3D chromatin architecture in acute leukemia	Aristotelis Tsirigos (New York)
10:05-10:15	Discussion	
10:15-10:40	Phase separation-based mechanisms underlying 3D chromatin structure reorganization and CML blast crisis	Greg Wang (Chapel Hill)
10:40-10:50	Discussion	
10:50-11:00	Conclusion	

09:00- 09:40	**DEBATE: PONATINIB VS ASCIMINIB:** **IS PONATONIB STILL THE DRUG OF CHOICE FOR 3RD LINE THERAPY?** **Chair:** Tim Hughes (Adelaide)	
09:00-09:05	Introduction	
Audience votes		
09:05-09:15	Ponatinib	Jorge Cortes (Augusta)
09:15-09:25	Asciminib	Delphine Réa (Paris)
Audience votes again		
09:25-09:40	*Discussion*	
09:40-10:00	**SPECIAL LECTURE (6):** **Chair**: Danilo Perrotti (Baltimore)	
09:40-09:55	Dissecting phylogenetic trees in hematopoiesis and myeloid malignancies	Jyoti Nangalia (Cambridge)
09:55-10:00	*Discussion*	
10:00-11:20	**SCIENTIFIC SESSION 7: REAL WORLD DATA** **Chair:** Carolina Pavlovsky (Buenos Aires)	
10:00-10:15	***Keynote Presentation****:* Clinical trials and the real world: how do they correlate	Dragana Milojkovic (London)
10:15-10:20	*Discussion*	

	Selected Abstracts: *(12' + 3' discussion)*	
10:20-10:40	Clinical outcome of asciminib treatment in a real-world multi-resistant CML patient population	Camille C.B. Kockerols (Dordrecht)
10:40-11:00	UK real world of experience of asciminib	Andrew Innes (London)
11:00-11:20	Therapy in patients with CML outside of clinical trials: results of the german CML-registry (CML-VI)	Katharina Kohlbrenner (Mannheim)
11:20-11:50	***Coffee Break (lunch boxes)***	
11:50-12:15	**ESH INTERNATIONAL JOHN GOLDMAN RESEARCH AWARD 2020: PRESENTATION OF RESULTS** **Chair:** Hervé Dombret (Paris)	
11:50-11:55	*Introduction*	
11:55-12:10	High dimensional single-cell profiling to predict TFR at CML diagnosis	Vaidehi Krishnan (Singapore)
12:10-12:15	*Discussion*	
12:15- 12:30	**iCMLf PRIZE PRESENTATION:** **Presenter:** Andreas Hochhaus (Jena) **Awardee 2020:** Sabira Kurtovic (Sarajevo) **Awardeee 2021:** Damira Bayzakova (Bishkek) – *posthumously* **Awardees 2022:** Jan Geissler (Munich), Giora Sharf (Netanya)	
12:30 12:50	**iCMLf PRIZE: SPECIAL LECTURE (7)** **Chair:** Andreas Hochhaus (Jena)	
	20 years of evidence-based patient advocacy in CML: a story of close collaboration with researchers	Jan Geissler (Munich)
	Patients perspective on cure in CML	Giora Sharf (Netanya)
12:50-13:50	**SCIENTIFIC SESSION 8: PEDIATRICS, BIOMARKERS AND COVID** **Chair:** Michael Mauro (New-York)	
	Selected Abstracts: *(12' + 3' discussion)*	
12:50-13:05	Treatment and long-term follow-up of children with CML in chronic phase in the TKI Era: more than 2 decades of experience from the Tata Memorial Hospital paediatric CML cohort	Nirmalya Roy Moulik (Mumbai)
13:05-13:20	Adverse impact of HMGCLL1 gene variant on treatment outcomes including response, failure and progression with imatinib can be abrogated by the use of 2nd generation tyrosine kinase inhibitor therapy in chronic myeloid leukemia	Dennis Dong Hwan Kim (Toronto)
13:20-13:35	Immunological response to sars-cov-2 after infection and/or vaccination among CML patients – a prospective study	Jorge Cortes (Augusta)
13:35	***Meeting Adjourned***	