20th Annual John Goldman Conference on Chronic Myeloid Leukemia: Biology and Therapy

celebrating 20 years

September 13-16, 2018
Loews Miami Beach Hotel, Miami, Florida, USA

Chairs: J. Cortes, T.P. Hughes, D.S. Krause


All scientific sessions will be held in the Americana 3 Ballroom on the 2nd level of the Loews Miami Beach Hotel, unless otherwise indicated below.

Thursday, September 13, 2018

08:00 AM - NOON  Board Meetings (by invitation)

10:00 AM - 12:30 PM  Poster Mounting

11:00 AM - 05:30 PM  Registration

12:30 PM - 12:40 PM  WELCOME TO MIAMI
Jorge Cortes (Houston)

12:40 PM - 12:50 PM  iCMLf - A REVIEW
Tim P. Hughes (Adelaide)

12:50 PM - 01:00 PM  JANET ROWLEY PRIZE PRESENTATION
Awardee 2018: Nick Cross (Southampton)
Andreas Hochhaus (Jena)

01:00 PM - 01:20 PM  JANET ROWLEY PRIZE: SPECIAL LECTURE (1)
Chair: Andreas Hochhaus (Jena)
Minimal, measurable, atypical
Nick Cross (Southampton)

01:20 PM - 03:05 PM  SCIENTIFIC SESSION 1: TOP SCORING ABSTRACTS 2018
Chairs: Mhairi Copland (Glasgow), Koji Sasaki (Houston)

01:20-01:35  Association of gene expression patterns in bone marrow cells with likelihood of treatment-free remission after TKI discontinuation
Jianbo He (Birmingham, USA)

01:35-01:50  Skeletal muscle toxicity associated with tyrosine kinase inhibitor therapy in patients with chronic myeloid leukemia
Lando Janssen (Nijmegen)

01:50-02:05  The role of ULK1-dependent autophagy in the survival of drug-resistant leukemic stem cells
Angela Ianniciello (Glasgow)
02:05-02:20 Nilotinib vs. nilotinib plus interferon α induction and nilotinib or interferon α maintenance therapy for newly diagnosed BCR-ABL positive chronic myeloid leukemia patients in chronic phase: interim analysis of the tiger (CML V) trial
Andreas Hochhaus (Jena)

02:20-02:35 The evaluation of residual disease by digital PCR and TKI duration are critical predictive factors for molecular recurrence after stopping imatinib first-line in chronic phase CML patients: results of the STIM2 study
François-Xavier Mahon (Bordeaux)

02:35-02:50 Somatic variants in epigenetic modifiers at CML diagnosis as predictive biomarkers for identifying high-risk CML-CP patients starting treatment with imatinib
Georgios Nteliopoulos (London)

02:50-03:05 Spirit 2: final analysis of an NCRI randomised study comparing dasatinib with imatinib in patients with newly diagnosed CML
Stephen O’Brien (Newcastle)

03:05 PM - 03:35 PM Coffee Break

03:35 PM - 05:20 PM SCIENTIFIC SESSION 2: STEM CELLS AND THE MICROENVIRONMENT
Chair: Vignir Helgason (Glasgow)

03:35-04:05 Keynote Debate
Why the fuss over CML stem cells? Because they matter!
Robert Peter Gale (London)
Ravi Bhatia (Birmingham, USA)

Selected Abstracts

04:05-04:20 TNFα-induced bone marrow stromal niche alterations enhance leukemic stem cell growth via CXCL1/CXCR2 signaling
Puneet Agarwal (Birmingham, USA)

04:20-04:35 Identification of metabolic vulnerabilities in leukemic stem cells using integrative omic approach
Zuzana Brabcova (Glasgow)

04:35-04:50 CML long-term repopulating stem cells are characterized by low levels of c-kit expression and reduced proliferative response to SCF stimulation
Mansi Shah (Birmingham, USA)

04:50-05:05 Modulation of components in dopamine signaling targets the eradication of leukemic stem cells in CML
Jake Ritchie (Glasgow)

05:05-05:20 Pharmacological stabilization of DYRK2 induces apoptosis and inhibits self-renewal in chronic myeloid leukemia stem cells, a novel approach to harness therapy with tyrosine kinase inhibitors
Daniel Lacorazza (Houston)

05:20 PM - 07:20 PM Welcome Reception Celebrating 20 Years!
Join us on the Americana Lawn for our 20 Year celebration with beverages and light hors d’oeuvres.
Friday, September 14, 2018

07:00 AM - 08:00 AM  Continental Breakfast

08:00 AM - 10:00 AM  WORKSHOP FOR NON-CLINICAL SCIENTISTS #1: IMAGING TECHNIQUES – Poinciana 1 Room

Chairs: Daniela S. Krause (Frankfurt), César Nombela-Arrieta (Zurich)

08:00-08:05  Introduction
            Daniela S. Krause (Frankfurt)

08:05-08:30  Quantitative spatial analysis of the bone marrow microenvironment in health and disease using 3D microscopy
            César Nombela-Arrieta (Zurich)

08:30-08:40  Discussion

08:40-09:05  Distinct perivascular niches for hematopoietic stem cells and erythroid progenitors in the bone marrow
            Stefano Comazzetto (Dallas)

09:05-09:15  Discussion

09:15-09:40  Intravital microscopy of the tumor-stroma interface during invasion
            Michael Weiger (Houston)

09:40-09:50  Discussion

09:50-10:00  Conclusion

08:30 AM - 10:00 AM  SYMPOSIUM ON SOME EMERGING AND REMAINING CHALLENGES IN MPN’S

Chair: Giuseppe Saglio (Turin)

08:30-08:35  Welcome
            Giuseppe Saglio (Turin)

08:35-08:47  MDS/MPN: SENECTUS IPSA EST MORBUS?
            Michael Deininger (Salt Lake City)

08:47-08:50  Discussion

08:50-09:02  Novel therapies for MPN
            Jorge Cortes (Houston)

09:02-09:05  Discussion

09:05-09:17  ELN and real-world treatment algorithms for MPNs
            Giuseppe Saglio (Turin)

09:17-09:20  Discussion

09:20-09:32  Novel approaches to monitor MPN
            Jerry Radich (Seattle)

09:32-09:35  Discussion

09:35-09:47  Assessing physical and social needs of patients with MPN
            Daniel C. McFarland (New York)

09:47-09:50  Discussion

09:50-10:00  General discussion and conclusions

10:00 AM - 10:30 AM  Coffee Break
10:30 AM - 11:50 AM  SCIENTIFIC SESSION 3: THE MICROENVIRONMENT AND MECHANISMS OF TRANSFORMATION  
Chair: Danilo Perrotti (Baltimore)

10:30-10:50  Keynote Presentation  
The role of the microenvironment in myeloid malignancies  
Rob Welner (Birmingham, USA)

Selected Abstracts

10:50-11:05  The role of the growing bone marrow microenvironment in pediatric B-cell acute lymphoblastic and chronic myeloid leukemia  
Costanza Zanetti (Frankfurt)

11:05-11:20  The contribution of natural anticoagulants to chronic myeloid leukemia progression in the bone marrow microenvironment via remodeling of the extracellular matrix  
Valentina René Minciacchi (Frankfurt)

11:20-11:35  Loss of function of the SETD2 tumor suppressor is a recurrent event in advanced-phase chronic myeloid leukemia, is due to post-translational mechanisms and fosters genetic instability  
Manuela Mancini (Bologna)

11:35-11:50  CML hematopoietic stem cells expressing IL-1RAP may be targets of chimeric antigen receptor (CAR) - engineered T-cells  
Christophe Ferrand (Besançon)

11:50 AM - 12:10 PM  SPECIAL LECTURE (2):  
Chair: Giovanni Martinelli (Bologna)

Bcl-2 and its inhibition in leukemia  
Marina Konopleva (Houston)

12:10 PM - 12:20 PM  SESSION LEUKA-ESH: LEUKA INTERNATIONAL SCHOLARSHIP AWARD CEREMONY  
Chairs: Nick Cross (Southampton), Hervé Dombret (Paris)

12:20 PM - 01:50 PM  Lunch and Poster Viewing

01:50 PM - 03:10 PM  SCIENTIFIC SESSION 4: MECHANISMS OF RESISTANCE (1)  
Chair: Shinya Kimura (Saga)

01:50-02:10  Keynote Presentation  
Resistance and progression to TKI: not just mutations  
Jerry Radich (Seattle)

Selected Abstracts

02:10-02:25  The association of transposable elements with chronic myeloid leukemia supports an assumption that non-coding variable regions of the human genome may play a role in hematological malignancies  
Jitka Koblihova (Prague)

02:25-02:40  CIP2A alters energy metabolism in CML cells, thus likely to contribute to TKI resistance  
James Austin (Liverpool)

02:40-02:55  STAT3 signaling pathway mediates the drug resistance signature in CML  
Sweta Patel (Birmingham, USA)

02:55-03:10  HMGCLL1 is a predictive germline biomarker for deep molecular response to imatinib therapy in chronic myeloid leukemia  
Dennis Kim (Toronto)
03:10 PM - 03:40 PM  Coffee Break

03:40 PM - 04:00 PM  SPECIAL LECTURE (3):
Chair: Xiaoyan Jiang (Vancouver)
Immunology of GVHD and GVL and implications in the treatment of leukemia  Pavan Reddy (Ann Arbor)

04:00 PM – 05:20PM  SCIENTIFIC SESSION 5: MECHANISMS OF RESISTANCE AND NEW TARGETS
Chair: Philippe Rousselot (Versailles)

04:00-04:20  Keynote Presentation
Novel differential targeting approaches for Bcr-Abl p210- and p190-driven leukemias using combined targeted and allosteric inhibitors  Oliver Hantschel (Lausanne)

Selected Abstracts

04:20-04:35 A genome-scale CRISPR knock-out screen in chronic myeloid leukemia identifies common drug resistance mechanisms implicating apoptotic and transcriptional machineries  Matthieu Lewis (Bordeaux)

04:35-04:50 Single-molecule sequencing reveals patterns of pre-existing drug resistance that suggest treatment strategies in Philadelphia-positive leukemias  Justin Pritchard (State College)

04:50-05:05 Rho kinase is a promising new target in CML  Leena Mukherjee (Glasgow)

05:05-05:20 Modulation of p53 with the MDM2 antagonist idasanutlin, in combination with nilotinib treatment, targets primitive CML cells in vitro and in vivo  David Vetrie (Glasgow)

05:30 PM - 07:00 PM  Mentored Poster Walk 1 and Refreshments – Americana 4 Ballroom

Biology Poster Walk Leaders: Tom O’Hare (Salt Lake City), Tomasz Skorski (Philadelphia)
Clinical Poster Walk Leaders: Ehab Atallah (Milwaukee), Susanne Saussele (Mannheim)

08:00 PM - 10:00 PM  Invited Faculty Reception (by invitation)
### SYMPOSIUM ON PHILADELPHIA POSITIVE ACUTE LYMPHOBLASTIC LEUKEMIA (Ph+ ALL)

**Chairs:** Jorge Cortes (Houston), Hervé Dombret (Paris)

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<td>08:30</td>
<td>Welcome and introduction</td>
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<td>08:40</td>
<td>New concepts in the biology of Ph+ ALL</td>
<td>Katia Georgopoulos (Boston)</td>
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<td>08:52</td>
<td>Low-intensity TKI-based therapy for Ph+ ALL</td>
<td>Hervé Dombret (Paris)</td>
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<td>09:14</td>
<td>Aim for the cure: TKI-based chemotherapy for Ph+ ALL</td>
<td>Elias Jabbour (Houston)</td>
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<td>09:30</td>
<td>How to identify and manage Ph-like ALL</td>
<td>Sarah Tasian (Philadelphia)</td>
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<td>09:48</td>
<td>New approaches for Ph+ ALL (monoclonal antibodies, CART cells, new TKI)</td>
<td>Giovanni Martinelli (Bologna)</td>
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<td>10:05</td>
<td>Stem cell transplant for Ph+ ALL: who, when, how</td>
<td>Federico Lussana (Bergamo)</td>
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<td>10:48</td>
<td>Concluding Remarks</td>
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### WORKSHOP FOR NON-CLINICAL SCIENTISTS #2: FUNCTIONAL GENOMIC EDITING – Cowrie 1 Room

**Chair:** Mike Deininger (Salt Lake City)

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<tr>
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<tr>
<td>09:00</td>
<td>Introduction</td>
<td>Mike Deininger (Salt Lake City)</td>
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<td>09:30</td>
<td>The past, present, and future of genome editing</td>
<td>Ross Wilson (Berkeley)</td>
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<td>09:40</td>
<td>In vivo genome editing in preclinical modeling: impact and future perspectives</td>
<td>Danilo Maddalo (Basel)</td>
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<td>10:05</td>
<td>Discussion</td>
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<td>10:15</td>
<td>CRISPR/CAS9: from genome editing, cell engineering to cancer drug discovery</td>
<td>Roderick Beijersbergen (Amsterdam)</td>
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<td>10:40</td>
<td>Discussion</td>
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<td>10:50</td>
<td>Concluding Remarks</td>
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11:00 AM - 11:30 AM  Coffee Break

11:30 AM - 11:50 AM  INAUGURAL TESSA HOLYOAKE MEMORIAL LECTURE: SPECIAL LECTURE (4)
Chair: Rick Van Etten (Irvine)

Genetic and epigenetic heterogeneity in AML: engines for progression and relapse
Tim Ley (St. Louis)

11:50 AM - 12:18 PM  BRIEF ORAL COMMUNICATIONS (BIOLOGY)
Chair: Bing Carter (Houston)

11:50- 11:57  Targeting PRC2 activity as a novel therapeutic strategy in advanced phase CML
Ross Kinstrie (Glasgow)

11:57- 12:04  Crosstalk between BCL6 and EZH2 in regulating CML stem cell survival
Jane Bugler (Glasgow)

12:04-12:11  Impact of kinase domain mutations on second line nilotinib therapy in CML chronic phase – Real world data from a developing country perspective
Shinto Francis Thekkudan (New Delhi)

12:11- 12:18  Aberrant methylation in promoter regions of CpG islands of multiple genes is associated with disease progression and molecular response in CML
Sameer Ahmad Guru (New Delhi)

12:18 PM - 01:00 PM  BRIEF ORAL COMMUNICATIONS (CLINICAL)
Chair: Michael Mauro (New York)

12:18-12:25  The technical decline in the rate of CML treatment-free remission in aging countries: the French experience
Marc Delord (Paris)

Gemlyn George (Milwaukee)

12:32-12:39  Long-term outcomes of early CP CML patients who have achieved CCyR but not MMR after 24 months on frontline imatinib therapy
Sung-Hyun Kim (Busan)

Qian Jiang (Beijing)

12:46-12:53  Adherence to tyrosine kinase inhibitor affects overall survival in 3,841 chronic myeloid leukemia patients
Jee Hyun Kong (Seoul)

12:53- 01:00  Cumulative incidence of treatment-free remission (TFR) for patients with chronic myeloid leukemia (CML): the Adelaide experience
Naranie Shanmuganathan (Adelaide)

01:00 PM - 02:15 PM  Lunch and Poster Viewing
02:15 PM - 03:20 PM  **SCIENTIFIC SESSION 6: THERAPEUTIC INTERVENTIONS**  
*Chair:* Javier Pinilla-Ibarz (Tampa)

02:15-02:35  **Keynote Presentation**  
Are TKI really safe?  
Carlo Gambacorti-Passerini (Monza)

**Selected Abstracts**

02:35-02:50  Long-term response, safety, and survival outcomes with frontline dasatinib therapy in chronic myeloid leukemia in early chronic phase: results of a phase II trial  
Abhishek Maiti (Houston)

02:50-03:05  Long-term impact of early and deeper molecular response in newly diagnosed CML-CP patients receiving radotinib: three years follow-up of rerise study  
Young Rok Do (Daegu)

03:05-03:20  Long-term results of a phase 2 trial of nilotinib 400 Mg twice daily in newly diagnosed patients with chronic phase of chronic myeloid leukemia  
Lucia Masarova (Houston)

03:20 PM - 03:50 PM  **Coffee Break**

03:50 PM - 04:05 PM  **ANNOUNCING THE JOHN GOLDMAN AWARD!**  
Hervé Dombret, ESH President (Paris)

04:05 PM - 05:25 PM  **SCIENTIFIC SESSION 7: TREATMENT-FREE REMISSION**  
*Chair:* Charles Schiffer (Detroit)

04:05-04:25  **Keynote Presentation**  
What prevents the disease from relapsing after TKI discontinuation  
Satu Mustjoki (Helsinki)

**Selected Abstracts**

04:25-04:40  Treatment-free remission in patients with chronic phase chronic myeloid leukemia and stable deep molecular response discontinuing dasatinib (DASFREE)  
Susanne Saussele (Mannheim)

04:40-04:55  ENESTop 144-week update: long-term treatment-free remission in patients with chronic myeloid leukemia in chronic phase after stopping second-line nilotinib  
François-Xavier Mahon (Bordeaux)

04:55-05:10  ENESTfreedom 144-week update: long-term treatment-free remission following frontline nilotinib in patients with chronic myeloid leukemia in chronic phase  
Andreas Hochhaus (Jena)

05:10-05:25  Molecular milestones using the BCR-ABL1 qPCR level and doubling time after imatinib discontinuation to predict successful treatment-free remission: treatment-free remission accomplished by dasatinib (TRAD) trial  
Dennis Kim (Toronto)
Sunday, September 16, 2018

05:25 PM - 05:35 PM  JOHN GOLDMAN PRIZE PRESENTATION  
Awardee 2018: Jorge Cortes (Houston)  
Tim P. Hughes (Adelaide)

05:35 PM - 05:55 PM  JOHN GOLDMAN PRIZE: SPECIAL LECTURE (5)  
Chair: Tim P. Hughes (Adelaide)  
20 years of CML research: a few things I have learned and many I have not  
Jorge Cortes (Houston)

06:00 PM - 07:00 PM  Mentored Poster Walk 2 and Refreshments – Americana 4 Ballroom  
Biology Poster Walk Leaders: Tom O’Hare (Salt Lake City), Tomasz Skorski (Philadelphia)  
Clinical Poster Walk Leaders: Ehab Atallah (Milwaukee), Susanne Saussele (Mannheim)

07:45 PM - 10:45 PM  JMG CML Dinner Party on the Beach - Celebrating 20 Years!  
Have you reserved your seat for dinner, beverages and music under the Florida stars at the historic Nikki Beach, to celebrate the 20th Anniversary of the John Goldman Conference on CML? Transportation will leave the Loews Miami Beach Hotel for Nikki Beach at 7:45 PM and start to shuttle back to the Hotel starting at 9:15 PM. Or, you may wish to stroll back with colleagues and friends, along the exciting Collins Avenue, to enjoy the nightlife of South Beach after dinner (about 1.5 miles).

07:00 AM - 08:00 AM  JMG CML FUN RUN  (Pre-registration required) – Meet at the Palm Court Fountain  
Get your Sunday going strong when you join us for an early 5km run, along Miami’s South Beach!

07:30 AM - 08:30 AM  Continental Breakfast

08:30 AM - 08:50 AM  SPECIAL LECTURE (6):  
Chair: Oliver Hantschel (Lausanne)  
Clonal hematopoiesis/CHIP and its implications in leukemogenesis  
David Steensma (Boston)

08:50 AM - 10:05 AM  SCIENTIFIC SESSION 8: MONITORING, BIOMARKERS AND OTHER APPROACHES  
Chair: Doug Smith (Baltimore)  
Selected Abstracts

08:50- 09:05  NGS-based prospective assessment of low burden mutation dynamics in chronic myeloid leukemia patients with failure and warning responses: the 'next-in-CML' study  
Simona Soverini (Bologna)

09:05- 09:20  An international control round for deep sequencing analysis of BCR-ABL kinase domain mutations in 12 laboratories from 7 European countries  
Thomas Ernst (Jena)
09:20- 09:35  Kinetics of BCR-ABL after TKI interruption during pregnancy in CML
   Jeong-Ok Lee (Seongnam)

09:35-09:50  BCR-ABL+ AML or primary myeloid CML blast crisis? A practical approach to the revised WHO classification of myeloid malignancies and its pitfalls
   Nina Rosa Neuendorff (Heidelberg)

09:50-10:05  Long-term survival of patients with chronic phase chronic myeloid leukemia who received autologous stem cell transplantation and further exposed to tyrosine kinase inhibitors
   Mauricette Michallet (Lyon)

10:05 AM - 10:15 AM  iCMLf PRIZE PRESENTATION:
   2018 Awardee: Hemant Malhotra (Jaipur)
   Jerry Radich (Seattle)

10:15 AM - 10:35 AM  iCMLf PRIZE: SPECIAL LECTURE (7)
   Chair: Jerry Radich (Seattle)
   Managing CML in emerging regions: some problems and perspectives
   Hemant Malhotra (Jaipur)

10:35 AM - 11:35 AM  CONCURRENT MEET-THE-EXPERT SESSIONS (Pre-registration required)
   Stem cell biology
      Crown Conch Room
       Mhairi Copland (Glasgow)
   Clonal hematopoiesis: what we know and what we do not know
      Moon Room
       David Steensma (Boston)
   How I treat CML
      Lucina Room
       Giuseppe Saglio (Torino), Deb White (Adelaide)
   Pregnancy and CML
      Sunrise Tellin Room
       Dragana Milojkovic (London)
   How I stop treating CML
      Venus Room
       Susanne Saussele (Mannheim), Delphine Réa (Paris)

11:35 AM  Meeting Adjourned