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For patients with **HIGHER-RISK MDS**

**ISN’T IT TIME FOR TREATMENT INNOVATIONS?**

Newly diagnosed patients with higher-risk myelodysplastic syndromes (HR-MDS) face poor outcomes

- ~40\% will transform to AML

- 12.4 months mOS in a real-world study

A significant unmet need for the management of HR-MDS still exists

*Observed in adult patients with HR-MDS. Results are from an observational study that included 1,101 consecutive patients with higher-risk MDS (IPSS intermediate-2/high) and low-blast-count AML (21%-30% blasts) in Ontario, Canada from June 1, 2010 to March 2, 2016.*

AML=acute myeloid leukemia, HR-MDS=higher-risk myelodysplastic syndromes, IPSS=international prognostic scoring system, MDS=myelodysplastic syndromes, mOS=median overall survival.


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Deferiprone Tablets 500 mg

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INDICATIONS AND USAGE: Deferiprone is an iron chelator indicated for the treatment of patients with transfusional iron overload due to thalassemia syndromes when current chelation therapy is inadequate.

Limitation of Use: Safety and effectiveness have not been established for the treatment of transfusional iron overload in patients with other chronic anemias.

IMPORTANT SAFETY INFORMATION

WARNING: AGRANULOCYTOSIS/NEUTROPENIA
• Deferiprone can cause agranulocytosis that can lead to serious infections and death. Neutropenia may precede the development of agranulocytosis.
• Measure the absolute neutrophil count (ANC) before starting deferiprone therapy and monitor the ANC weekly on therapy. Interrupt deferiprone therapy if neutropenia develops.
• Interrupt deferiprone if infection develops, and monitor the ANC more frequently.
• Advise patients taking deferiprone to report immediately any symptoms indicative of infection.

WARNINGS AND PRECAUTIONS
If infection occurs while on deferiprone, interrupt therapy and monitor the absolute neutrophil count (ANC) more frequently. Deferiprone can cause fetal harm. Women should be advised of the potential hazard to the fetus and to avoid pregnancy while on this drug.

CONTRAINDICATIONS
Hypersensitivity to deferiprone or to any of the excipients in the formulation.

ADVERSE REACTIONS
The most common adverse reactions are (incidence ≥ 5%) chromaturia, nausea, vomiting and abdominal pain, alanine aminotransferase increased, arthralgia and neutropenia.

DRUG INTERACTIONS
Avoid concomitant use with other drugs known to be associated with neutropenia or agranulocytosis; however, if this is not possible, closely monitor the absolute neutrophil count.
Allow at least a 4-hour interval between deferiprone and mineral supplements, and antacids that contain polyvalent cations (e.g., iron, aluminum, and zinc).

USE IN SPECIFIC POPULATIONS
Safety and efficacy of deferiprone have not been established in pediatric patients, geriatric patients, or patients with severe hepatic impairment. Nursing mothers should discontinue use of deferiprone or discontinue nursing.

For more information on how to access the product, visit www.tarocares.com Click here for Full Prescribing Information.

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PROGRAM OF THE 62ND ANNUAL MEETING OF

AMERICAN SOCIETY OF HEMATOLOGY

December 5–8, 2020

(Preview Days December 2–4, 2020)
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## ERNEST BEUTLER LECTURE AND PRIZE

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ASH MENTOR AWARD

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</table>

ABSTRACT ACHIEVEMENT AWARDS

ASH OUTSTANDING ABSTRACT ACHIEVEMENT AWARDS

The American Society of Hematology is pleased to recognize the following abstract presenters who received the highest ranking in their categories of undergraduate student, medical student, graduate student, resident physician, and post-doctoral fellow.

UNDERGRADUATE STUDENT
Georgia Gregory, BS
University of California—San Francisco

MEDICAL STUDENT
Yuting Yan
Peking Union Medical College

GRADUATE STUDENT
Christian Marinaccio, MSc
Northwestern University

RESIDENT PHYSICIAN
Kylee Martens, MD
University of Washington School of Medicine

POST-DOCTORAL FELLOW
Xianjiang Lan, PhD
Children's Hospital of Philadelphia

ASH-BRITISH SOCIETY OF HEMATOLOGY ABSTRACT ACHIEVEMENT AWARD

This annual award in partnership with the British Society of Haematology (BSH) is granted to up to three British trainees (undergraduate student, medical student, graduate student, resident physician, or post-doctoral (MD or PhD) fellow) who are the first-or-senior author and presenter of the most meritorious submitted abstract. Recipients of this award must be a member of BSH and reside in the United Kingdom.

Deena Iskander, MD
Imperial College

Jayna Mistry, BSc
The University of East Anglia

Rebecca Shaw, MBChB
University of Liverpool
ASH-HEMATOLOGY SOCIETY OF AUSTRALIA AND NEW ZEALAND ABSTRACT ACHIEVEMENT AWARD

This annual award in partnership with the Haematology Society of Australia and New Zealand (HSANZ) is granted to up to two Australian or New Zealander trainees (undergraduate student, medical student, graduate student, resident physician, or post-doctoral (MD or PhD) fellow) who are the first or senior author and presenter of the most meritorious submitted abstract. Recipients of this award must be a member of HSANZ and reside in Australia or New Zealand.

Naranie Shanmuganathan, FRACP, FRCPA, MBBS
Royal Adelaide Hospital and SA Pathology

ASH-JAPANESE SOCIETY OF HEMATOLOGY ABSTRACT ACHIEVEMENT AWARD

This annual award in partnership with the Japanese Society of Hematology (JSH) is granted to up to three Japanese trainees (undergraduate student, medical student, graduate student, resident physician, or post-doctoral (MD or PhD) fellow) who are the first or senior author and presenter of the most meritorious submitted abstract. Recipients of this award must be members of JSH and reside in Japan.

Yasunori Kogure, MD, PhD
National Cancer Center Research Institute
Ryunosuke Saiki, MD
Kyoto University
Shunichiro Yasuda, MD
Tokyo Medical and Dental University

ASH-IPIG ABSTRACT ACHIEVEMENT AWARD FOR PAROXYSMAL NOCTURNAL HEMOGLOBINURIA (PNH)

This annual award in partnership with International Paroxysmal Nocturnal Hemoglobinuria (PNH) Interest Group (IPIG) is granted to up to two trainees (undergraduate student, medical student, graduate student, resident physician, or post-doctoral (MD or PhD) fellow) who are the first or senior author and presenter of the most meritorious PNH focused abstracts submitted in the fields of Red Cells and Erythropoiesis or Bone Marrow Failure.

Carmelo Gurnari, MD
Cleveland Clinic
Noriaki Tsuji, MD
Kanazawa University

ASH-SOCIETY ITALIANA DI EMATOLOGIA ABSTRACT ACHIEVEMENT AWARD

This annual award in partnership with the Society Italiana di Ematologia (SIE) is granted to up to Italian two trainees (undergraduate student, medical student, graduate student, resident physician, or post-doctoral (MD or PhD) fellow) who are the first or senior author and presenter of the most meritorious submitted abstract. Recipients of this award must be a member of SIE and reside in Italy.

Luca Bertimini, MD
GIMEMA
Raffaele Palmieri, MD
University of Rome Tor Vergata

JOANNE LEVY, MD, MEMORIAL AWARD FOR OUTSTANDING ACHIEVEMENT

This award was established in 2006 to recognize the current ASH Scholar with the highest scoring abstract for the ASH annual meeting. This award is given in honor of a past Scholar Award recipient and distinguished member of ASH, Joanne Levy, who passed away in 2004. This annual award is made possible by the Levy family to continue her legacy and promote excellence in hematology research.

Annamaria Gulla, MD
Dana-Farber Cancer Institute

MARY RODES GIBSON MEMORIAL AWARD IN HEMOSTASIS AND THROMBOSIS

This award was established to recognize the trainee (undergraduate student, medical student, graduate student, resident physician, or post-doctoral fellow) who is the first author and presenter of the highest-scoring abstract submitted in the field of hemostasis and thrombosis. This annual award is made possible by the Mary Rodes Gibson Hemostasis-Thrombosis Foundation to continue the legacy of Mary Rodes Gibson who suffered from severe, type 3 von Willebrand’s disease.

Dino Mehic, MD
Medical University of Vienna

MINORITY GRADUATE STUDENT ABSTRACT ACHIEVEMENT AWARD

Each year, the American Society of Hematology, offers merit-based Minority Graduate Student Abstract Achievement Awards to select graduate students to acknowledge the accomplishments of and recruit and retain minority graduate students in the field of hematology.

Tre Artis, BA
Harvard University
Mary Figueroa, BS
MD Anderson Cancer Center
Emaan Madany, BS
Cedars-Sinai Medical Center

Adedamola Elujoba-Bridenstine, MS
The University of Wisconsin, Madison
Marcus Florez, BS
Baylor College of Medicine
Zanshe Thompson, MS
University of South Carolina
Each year, the American Society of Hematology offers merit-based Abstract Achievement Awards (formerly Travel Awards) to select individuals to acknowledge the accomplishments of hematologists-in-training. This year’s Abstract Achievement Awards recognize undergraduate students, medical students, graduate students, resident physicians, and post-doctoral fellows who are both first author and presenter of an abstract.
| Katharina Waack                          | Metis Hasipek                        | Renee Cheng                      | Thomas Kuczmarski          |
| Katsuyoshi Takata                       | Miaoyan Zhang                        | Reona Sakemura                   | Tiffany Tran              |
| Kelly Olsen                             | Michael Slade                        | Richa Sharma                     | Ting Liu                 |
| Kelsey Temprine                         | Miguel Quijada Alamo                 | Richard Coffey                   | Tingting Hong            |
| Kenta Yamamoto                          | Min Xia                              | Robert Kraft                     | Tomasz Kaminski          |
| Kerstin Kaufmann                        | Minke Rab                            | Robert Puckrin                   | Tristan Lim              |
| Kevin Nuno                              | Minoru Kanaya                        | Roberta Azevedo                  | Tyce Keely               |
| Kimberly Johansson                      | Misam Zawit                         | Rosalinda Termini                | Uri Greenbaum            |
| Kishan Patel                            | Moayed Ibrahim                       | Rossella Marullo                 | Vaibhav Kumar            |
| Kiyomi Morita                           | Mohammed Al Nuaimi                   | Rucha Modak                      | Valentina Baez Sosa      |
| Klaudyna Fidyt                          | Momoko Nakamura                      | Ryan Thomas                      | Valentina Cordon'        |
| Koji Jimbo                              | Monika Kytma                         | Ryosuke Shirasaki                | Vanessa Furtado          |
| Koya Ono                                | Monique Chavez                       | Sagar Koduri                     | Vanessa Kennedy          |
| Kristin Larsen                          | Moriah Rabin                         | Samantha Hershfeld               | Vasu Babu Goli           |
| Kristine Karkoska                       | Moritz Binder                        | Samuel Yamshon                   | Verena Pfister           |
| Kylee Maclachlan                        | Muhammad Haroon Shaikh                | Sanjai Desai                     | Vickie Kwan              |
| Lakshmi Pottiuri                        | Muhned Alhumaid                      | Sapanja Jalanpurkar              | Victoria Brooks          |
| Lana Mucalo                             | Na Yoon Paik                         | Sara Rodriguez                   | Vinicius de Molla        |
| Larissa Doll                            | Nam Nguyen                           | Sara Rubin                       | Vinicius Molla           |
| Laura Eadie                             | Natalia Baran                        | Sarah Arthur                     | Vinodhini M              |
| Laura Notarfranchi                      | Nathan Eaton                         | Sarah Makhani                    | Violante Oliviari        |
| Lauren Merz                             | Nathan Radakovich                    | Sarah Shaner                     | Vitoria Cen              |
| Leonardo Rivadeneyra                    | Naveed Ali                            | Saul Kusinsky                    | Wei Zuo                  |
| Lia DeRoin                              | Nayan Jain                           | Savanah Gisriel                  | Wen Zhu                  |
| Line Lyngaard                           | Nicholas Tschemnja                   | Senthil Sukumar                  | Xi Chen                  |
| Ling Tian                               | Nick Anderson                        | Serine Avagyan                   | Xia Wu                   |
| Lin-Pierre Zhao                         | Nicole Lopez                         | Sha Li                           | Xiaomin Chen            |
| Linzi Hobbs                             | Nikoleta Bizymi                      | Shannon Murphy                   | Xiaomin Wang            |
| Lisa Marie Kaiser                       | Noemie Leblay                        | Shawn Lee                        | Xiaowei Xie              |
| Livius Penter                           | Nora Liebers                         | Shelley Meckstroth               | Xu Han                   |
| Lorena Fanaitle                         | Nunki Hassan                         | Shelley Herbrich                 | Xuan Cai                 |
| Luca Biavati                            | Olga Gavrilina                       | Shikha Gupta                     | Xueyan Sun               |
| Lucie Lanikova                          | Olubusola Oluwole                    | Shruti Shah                      | Ya Zhang                 |
| Mackenzie Parker                        | Omar Abughanimeh                     | Shuai Chen                       | Yan Su                   |
| Madhavi Lakharaja                       | Othman Al-Sawaf                      | Shuang Li                        | Yang Han                 |
| Madison Williams                        | Othmane Jadi                         | Shannon Murphy                   | Yang Liang Boo           |
| Madlen Jentzsch                         | Owais Mian                           | Shawn Lee                        | Yannis Valtis            |
| Mahir Khan                              | Pablo Mozas                          | Shelley Meckstroth               | Yao Yao                  |
| Malika Ahmad                            | Paige Dausinas                       | Shelley Herbrich                 | Yasmin Alwash            |
| Marco Basset                            | Paola Minetto                        | Siddharth Kunte                  | Yazan Migdady            |
| Mareike Rasche                          | Parmeshwar Amaty                     | Simona Pagliuca                  | Yazan Numan              |
| Marena Niewisch                         | Patrick Harrington                   | Siobhan Rice                     | Yazan Rouphail           |
| Maria Aivalioti                         | Patrick Johnson                      | Sobhika Agarwala                 | Yejun Wu                 |
| Maria Selvadurai                         | Patrizia Mondello                    | Solomon Johnson                  | Yi Zhao                  |
| Mariar Farrell                          | Paul Brockelmann                     | Sophie Herbst                    | Yiming Wu                |
| Mariateresa Pettinato                   | Pavithra Shyamsunder                 | Sossena Wood                     | Yiqing Cai               |
| Marina Martello                         | Peng Zhao                            | Srikanth Talluri                 | Yiwen Wang               |
| Marissa Li                              | Perla Colunga Pedraza                | Stephanie Forte                  | Yongxia Wu               |
| Martin Kliatt                           | Pietro Di Ciaccio                    | Stephanie Luff                   | Youjin Wang              |
| Martin Rodriguez                        | Poy Theprungsirikul                  | Stephen Boyle                    | Yuki Nisida              |
| Masahiro Ikeda                          | Prajish Iyer                         | Stephen Chong                    | Yusuke Ishikki           |
| Matteo Da Via’                          | Prashasti Agrawal                    | Sunil Joshi                      | Yusuke Ito               |
| Matthew Cross                           | Priyanka Pullarkat                   | Sunisa Kongkiatkamon              | Yuya Sasaki              |
| Maximilian Alexander Rohner              | Qi Wen                               | Susan DeWolf                     | Zaid Abdel Rahman        |
| Maximilian Stahl                        | Qiang Liu                            | Susree Modepalli                 | Zaria Williams           |
| Mazie Tsang                             | Qingqing Wu                          | Sve Mar Linn                     | Zeya Cao                 |
| McKensie Collins                        | Qiu-Sha Huang                        | Swetha Kambhampati               | Zhongbo Hu               |
| Megan Lee                               | Quan Gu                              | Sydney Fobare                    | Zhuangyi Zhang           |
| Meghan Pike                             | Radovan Vasic                        | Taehoon Shin                     | Zuzana Chyra             |
| Meghan Thompson                         | Rafael Alonso Fernandez               | Tan Sang                         |                        |
| Melissa Maltez                          | Raja Prince                          | Tanaya Shree                     |                        |
| Mengyang Di                             | RAM Nampoothiri                      | Tanzir Ahmed                     |                        |
| Meredith Larose                         | Raphael Lutz                         | Tengteng Yu                      |                        |
| Awards                                  |                                     | Thao Trinh                       |                        |
| ABSTRACT ACHIEVEMENT AWARDS             |                                     | Thiagaraj Mayuranathan            |                        |
|                                        |                                     |                                |                        |
Find the right opportunity for your needs.

Apply for ASH® training programs and awards.

The American Society of Hematology (ASH) provides many awards and programs to support hematologists in all stages of their careers and to honor those who have helped advance the field of hematology.

Visit www.hematology.org/awards to find your next research opportunity.

Each year ASH provides more than $12 million in career development and training awards to early- and mid-career hematologists. Understanding the impact that the global COVID-19 pandemic response has had on the economy and on medical research, the Society continues to provide support and much-needed education and training to our members around the world, including maintaining funding for all 2020-2021 awards.
GUIDE TO NAVIGATING MEETING
American Society of Hematology
Self-Assessment Program (ASH®-SAP)

THE SEVENTH EDITION OF ASH®-SAP

The ASH-SAP encompasses both adult and pediatric hematology, including nonmalignant and malignant disorders.

25 NEW AND UPDATED CHAPTERS including additional sections on blood cell therapy, immunotherapy and application of CAR T cells

13 MULTIMEDIA MODULES including both digital and illustrated animation

258 NEW QUESTIONS in the Question and Answer Book allow for preparation for the CME or MOC tests

75 CME/MOC CREDITS FEATURING 6 TESTS

SPECIAL CONFERENCE PRICES

<table>
<thead>
<tr>
<th>Premier + CME/MOC</th>
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<td>Non-member</td>
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<tr>
<th>Digital + CME/MOC</th>
<th>20% Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online textbook and CME/MOC exam</td>
<td></td>
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<tr>
<td>Member – Active and International</td>
<td>$430-</td>
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<td>Member – Graduate/Medical Student/Resident</td>
<td>$180-</td>
</tr>
<tr>
<td>Non-member</td>
<td>$550-</td>
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PURCHASE YOUR COPY AT hematology.org/ASHSTORE
Beginning December 2, 2020, the ASH annual meeting will be live at annualmeeting.hematology.org. All times are in Pacific time. Duplication/recording is prohibited.

All registered attendees are encouraged to log in early to get acquainted with the site’s navigation and experience select meeting content as part of our meeting preview days.

To log into the platform, you will need your ASH username and password that you used to register for the meeting.

Who to Contact
If you are having difficulty accessing the virtual meeting platform, please contact the ASH Customer Relations Department by emailing customerservice@hematology.org or calling 866-828-1231 (U.S. toll free) or 001-202-776-0544 (for International callers), Monday through Friday, from 8:30 a.m. to 5:00 p.m. Eastern time.

If you have successfully accessed the platform but are having difficulty with one of its features, please use either the online Chatbot, Help, or Contact Us link features within the platform for technical assistance.
PREVIEW DAYS: December 2–4, 2020

Annual meeting “Preview Days” on the virtual meeting platform will begin on December 2, 2020.

Virtual Platform Orientation Video

A key feature of the preview will be an orientation video that is designed to provide an overview of the virtual environment so that participants will learn about the best ways to navigate the meeting platform. All participants are encouraged to watch this video in advance.

Session Content Available Starting December 2, 2020

On-Demand Education and Scientific Sessions

Select (pre-recorded) Education and Scientific Program sessions will be available for on-demand viewing starting Wednesday, December 2:

- Education Sessions
- Education Spotlight Sessions
- Scientific Committee Sessions
- Special Scientific Symposia
- Scientific Spotlight Sessions

Live Q&A Sessions

Live question-and-answer sessions to accompany the above pre-recorded presentations will be held from Saturday, December 5, through Monday, December 7. These sessions, designated with this icon, will consist of a brief summary of the full-length presentations followed by live interactions with the presenters. Attendees are encouraged to view the pre-recorded presentations during the Preview Days to prepare for the accompanying live Q&A sessions.

On-Demand Special Interest Sessions

- ASH Choosing Wisely® Campaign: 2020 ASH Choosing Wisely Champions (Live Q&A on December 6)
- How to Get Published in a Peer-Reviewed Journal
- How to Peer Review a Scientific Paper
- ASH Practice Partnership Lunch Program
- Grassroots Network Lunch

Sessions Held Live During Preview Days (see pages 37–39)

- Scientific Workshops @ ASH (December 2–4)
- ASH-a-Palooza (December 3–4)
- Special Symposium on Quality: Blood, Debt and Tears: Tackling Burnout in Hematology (December 3)
- Satellite Symposia (December 4)

CORE DAYS: December 5–8, 2020

The 62nd ASH Annual Meeting and Exposition officially begins at 7:00 a.m. Pacific time on Saturday, December 5, 2020.

The core meeting days and times are:

- Saturday, December 5
  7:00 a.m. – 3:30 p.m. Pacific time
- Sunday, December 6
  7:00 a.m. – 3:30 p.m. Pacific time
- Monday, December 7
  7:00 a.m. – 3:30 p.m. Pacific time
- Tuesday, December 8
  7:00 a.m. – 3:00 p.m. Pacific time

During the meeting and for the duration of your subscription to the platform, you will be able to access all annual meeting content including:

- Special-Interest Sessions with Live Q&A
- Education Program and Scientific Program On-Demand Presentations and Live Q&A Sessions
- Spotlight Sessions
- Oral Abstract Sessions with Live Q&A
- Poster Presentations
- Award Lectures
- Industry Solutions Center including the Exhibit Hall
- Product Theaters
Post-Meeting Events: December 9–11, 2020

Sessions Held Live Post Meeting (see page 49)
After the core dates of the annual meeting, additional sessions will be held Wednesday through Friday, December 9–11, including:

- ASH Poster Walks (December 9–10)
- Company Focus on Disease Posters (December 9–11)
- Satellite Symposia (December 9)

More events to be added! Check the mobile app and online for the latest schedule.

Binge Watching—Catch Up on Content
Participants will be able to watch presentation recordings on demand for sessions and posters that were presented earlier in the meeting.

Search For Sessions And Fill Your Calendar

Session Search and Filters
To help you navigate to the sessions you want to experience, the virtual meeting platform will feature detailed filters that will narrow down available sessions based on your desired areas of interest. Once on the sessions page, choose one or more filters to see all sessions on a specific topic (or topics).

To further narrow your search, use the search bar to look for a specific topic.

Adding Sessions to Calendar
Some sessions will be available live, while others will be available for on-demand viewing. When you identify a session of interest, select “Add to Calendar” to add the session to your personal Outlook, iCal, or Google Calendar. For live sessions the session’s pre-determined air date will populate in the calendar appointment, but for on-demand sessions you have the option of adjusting the session date and time so that you remember to come back and view the session at your convenience.

The annual meeting mobile application will also allow participants to add sessions to their calendar in the mobile application; these favorited sessions will automatically appear under a “My Sessions” filter within the meeting platform sessions page.
Networking

ASH understands that connecting with colleagues is one of the most important reasons that people love attending the ASH annual meeting. Fortunately, ASH’s virtual meeting provides several different options for connecting with friends and colleagues during the meeting.

ASH Community Collage

Take a break from the science and visit the ASH Community Collage to view and contribute to a real-time collection of attendee-generated photos, videos, and content posted to social media on a variety of fun topics. ASH will issue daily photo and video challenges for attendees to display live on the ASH Community Collage.

Hallway Conversations

Under normal conditions during an in-person meeting, there are very active conversations held in the hallways in between session times. This is intended to stimulate the same type of dialogue and exchanges in a virtual setting. To participate in casual discussion-board-style conversations with large groups of attendees, visit the Hallway Conversations page.

Connect with Participants

From the virtual meeting main page, visit the “Connect with Participants” page to find your friends and colleagues, engage in direct instant message chat with them or set up virtual video chats on a one-on-one basis, or organize group discussion for up to 50 people. The Connect with Participants feature can also use Artificial Intelligence (AI) matchmaking to find attendees whom you may want to meet.
There will be pre-set topics available for attendees to engage on a variety of scientific and clinical topics. Don’t see a topic that interests you? You can start your own conversations, too.

Watch with Friends and Colleagues

A feature unique to the ASH meeting is the ability to watch sessions with other attendees. Invite your mentees, collaborators, or friends to watch together so you can share your thoughts in real time.
ASH News Daily is the only official newspaper of the ASH Annual Meeting. Check in with ASHNewsDaily.org for regular coverage of this year’s virtual annual meeting, including:

- Previews of sessions, workshops, and special events you won’t want to miss
- Expert commentary and highlights from the Education and Scientific Programs
- Coverage from General Sessions, including this year’s Plenary Scientific Session, Ham-Wasserman Lecture, and more
- Handy how-to guides for social media and getting the most out of your virtual meeting experience
- Video coverage from ASH News TV
- A daily schedule to help you stay in the know.

Visit ASHNewsDaily.org, the official website of ASH News Daily

Start reading ASHNewsDaily.org beginning November 1!
GENERAL INFORMATION

All times are in Pacific time. Duplication/recording is prohibited.

PURPOSE OF ASH SCIENTIFIC AND EDUCATIONAL MEETINGS

The mission of the American Society of Hematology (ASH) is to further the understanding, diagnosis, treatment, and prevention of disorders affecting the blood, bone marrow, and the immunologic, hemostatic, and vascular systems, by promoting research, clinical care, education, training and advocacy in hematology. In accordance with this mission, the primary purpose of scientific meetings organized by ASH, including the Society’s annual meeting, is to facilitate the exchange of scientific information and clinical results related to the field of hematology. Another important goal of ASH-organized meetings is to assist physicians and scientists in developing and maintaining academic collaborations that will generate new knowledge, ultimately benefiting patients.

REGISTRATION

The American Society of Hematology is pleased to offer the 62nd ASH Annual Meeting and Exposition as an all-virtual experience. ASH looks forward to providing attendees with access to an innovative virtual meeting platform built for learning, collaboration, and networking.

ASH is offering new virtual meeting registration packages for members and non-members. The multiple registration options give attendees maximum flexibility with varying length of access to the virtual meeting platform to suit their individual needs. Each registration option provides attendees with access to the virtual meeting platform during the live, key dates of the meeting (December 5–8, 2020) to participate in live sessions, live Q&A, networking, CME/MOC, exhibit halls, and more. In addition, registrants will enjoy on-demand access to all sessions for the duration of their registration package. ASH suggests that you make your choice based upon how long you will access the on-demand content after the core meeting dates.

Registration is available now at hematology.org/meetings/annual-meeting/registration-information. Those who have previously registered may upgrade their subscription selection at any time by contacting the Registration Center.

Virtual Meeting Package Options

The virtual meeting packages were designed to give attendees maximum flexibility. Each option below provides access to the virtual meeting platform including Preview Days that will begin on December 2, 2020.

- **Real-Time Experience**: Access for 7 Days, through December 11, 2020 Provides access during peak dates and hours of the meeting with the largest "live" audience at a given time, maximizing opportunities for interactions, networking, and earning CME/MOC credits, which are only available for attending live sessions.

- **Added Flexibility**: Access for 30 days, through January 4, 2021 Adds flexibility for you to continue watching on-demand sessions after the meeting ends; CME/MOC will be available only for participation in live sessions.

- **Best Value**: Access for 90 days, through March 5, 2021 Provides maximum flexibility: the ability to participate in all live sessions and networking events during the core dates of the meeting, plus extended access to on-demand content, at the best price per day of access; CME/MOC will be available only for participation in live sessions.
General Information

All times are in Pacific time. Duplication/recording is prohibited.

Late Purchase Registration Fees (Beginning November 6)

<table>
<thead>
<tr>
<th>Registration Category</th>
<th>Real-Time Experience (7-Day Access through December 11, 2020)</th>
<th>Added Flexibility (30-Day Access through January 4, 2021)</th>
<th>Best Value (90-Day Access through March 5, 2021)</th>
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<tr>
<td>Member (Active and International)</td>
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<td>$450</td>
<td>$550</td>
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<tr>
<td>Non-Member</td>
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<td>$175</td>
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<td>ASH Fundamentals for Hematology Fellows</td>
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<td>International Associate Member</td>
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<td>Graduate/Medical Student Member</td>
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</table>

CONFLICT-OF-INTEREST POLICY

ASH is committed to providing quality, objective, balanced, and scientifically rigorous continuing medical education activities that are free from commercial and non-commercial bias. In accordance with the rules of the Accreditation Council for Continuing Medical Education (ACCME), all meeting session chairs, speakers, and moderators are required to disclose in writing any conflicts they may have prior to the meeting. All poster presenters are required to disclose in writing any conflicts they may have prior to the meeting and display their disclosures as a part of their poster presentation. If bias, actual or perceived, occurs during the presentations, session attendees are encouraged to address such bias during the question-and-answer periods following the presentations.

CONTINUING MEDICAL EDUCATION INFORMATION

Educational Objectives

Upon completion of this educational activity, participants should be able to:

- Employ the knowledge gained regarding the diagnosis and treatment of benign and malignant hematologic disorders to improve patient care;
- Discuss state-of-the-art research in hematology; and
- Analyze the potential contribution of novel, not-yet-approved modalities of therapy to current evidence-based management of hematologic disorders.

Accreditation

The American Society of Hematology is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

All ASH annual meeting presenters (including chairs, speakers, and moderators) are asked to disclose any relationships of the following types: Employment, Consultancy, Equity Ownership, Research Funding, Honoraria, Patents & Royalties, Speakers Bureau, Membership on an entity's Board of Directors or advisory committee, and any other financial relationship.

Any questions about this policy or concerns regarding disclosures should be directed to CME@hematology.org.

CME Certificate Eligibility

ASH is accredited to provide AMA PRA Category 1 Credits™ to physicians only. The American Medical Association (AMA) defines physicians as those individuals who have obtained an MD, DO, or equivalent medical degree from another country.

Physicians not licensed in the United States who participate in this CME activity are also eligible for AMA PRA Category 1 Credits™.

How to Obtain a CME Certificate

A processing fee of $30 will be charged for CME certificates. Attendees may complete the Annual Meeting Evaluation Surveys to claim their CME credits and print their CME certificates through the ASH website (www.hematology.org) by clicking the CME link on the homepage. The online process for claiming CME credits and printing a CME certificate for the 62nd ASH Annual Meeting must be completed no later than April 16, 2021.
ABIM MOC

Participation in this CME activity enables the attendee to earn up to 25 Medical Knowledge MOC points in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program. Attendees will earn MOC points equivalent to the amount of CME credits claimed for the activity. You will be asked to submit a reflective statement on how you intend to change your practice based on the knowledge you gained from participation in the meeting. Upon review and approval, your points will be submitted to the ACCME by ASH and will appear in your ABIM Physician Portal within 24 hours. In order to receive ABIM MOC points for the 62nd ASH Annual Meeting, the online process for claiming CME/ABIM MOC credits must be completed by April 16, 2021.

Certificate of Attendance

Non-physicians and other health-care professionals attending the meeting can receive a Certificate of Attendance by completing the Annual Meeting Evaluation Surveys through the ASH website (www.hematology.org) beginning Saturday, December 5, 2020.

INDUSTRY SOLUTIONS CENTER

The Industry Solutions Center will provide participants with a starting point to access new and exciting industry content. From this area you will be able to find:

Exhibit Hall

Over 100 pharmaceutical companies, medical suppliers, clinical diagnostic and research-based companies, publishers, and nonprofit organizations will be participating in the 62nd ASH Annual Meeting and Exposition. The virtual exhibit hall will feature the latest technology and research as well as a wide range of products and services. Exhibits will be available beginning on Saturday, December 5, and will remain available for the duration of your registration subscription.

Satellite Symposia

On Friday, December 4, attendees are invited to participate in the Satellite Symposia. The Satellite Symposia are industry-supported, CME-certified symposia that are offered the day preceding the ASH annual meeting. These sessions are not part of the official ASH annual meeting program and are planned solely by the sponsoring company. Additional Satellite Symposia will be offered on Wednesday, December 9, as well.

New This Year: Company Focus on Disease Posters

Based on the success of the inaugural ASH Poster Walk session in 2019, ASH is excited to introduce an opportunity for exhibiting companies to feature a curated group of poster presentations. Each Company Focus on Disease Posters will showcase up to six highlighted annual meeting posters as chosen by the sponsoring company and will include a panel discussion with select poster presenters and company representatives. Each session will last one hour and will be held in the following windows:

Wednesday, December 9 . . . 8:00 a.m. – 2:00 p.m. Pacific time
Thursday, December 10 . . . 8:00 a.m. – 2:00 p.m. Pacific time
Friday, December 11 . . . . 8:00 a.m. – 2:00 p.m. Pacific time

The online process of filling our the annual meeting survey must be completed no later than April 16, 2021. There is no charge to meeting registrants for this service.

European Board of Accreditation in Hematology CME Credit

ASH is applying for accreditation with the European Board of Accreditation in Hematology (EBAH). If you plan to claim EBAH-CME credit for attending the meeting, please check the appropriate box during the registration process or after the meeting in the online evaluation site. There is no fee required in order to be eligible for EBAH-CME Credit Points. For additional information about EBAH-CME Credit points, visit the EBAH website (http://ebah.org). For information about claiming EBAH CME for the 62nd ASH Annual Meeting email cme@hematology.org.

New This Year: ASH Pharmaceutical Pipelines Directory and Clinical Trials Directories

The new ASH Pharmaceutical Pipelines and Clinical Trials Directories will provide health care professionals access to current information on the status of hematologic pharmaceuticals in development to encourage and stimulate meaningful dialogue with industry. The Pharmaceutical Pipelines Directory will serve as a resource providing health care providers with current information on the status of hematologic pharmaceuticals in development. This repository is searchable by hematologic disease state, phase, keyword, and company name. Listings will include compound name, compound type, indication, and phase.

The Clinical Trials Directories will be searchable by hematologic disease state, phase, recruitment status, location, company name, and keyword. Listings will include compound name, study title, NCT number with link to clinicaltrials.gov, study type, trial locations, and contact information.

Product Theaters

Product Theaters feature exhibitor presentations on new research findings and products to groups of annual meeting attendees. The Product Theater sessions offered at the times listed below will be solely informational in nature; therefore, continuing medical education credits will not be offered.

Saturday, December 5 . . . 11:00 a.m. – 12:00 noon Pacific time
Sunday, December 6 . . . 11:00 a.m. – 12:00 noon Pacific time
Monday, December 7 . . . 10:30 a.m. – 11:30 a.m. Pacific time

General Information
NEW POSTER FORMAT

New This Year: Poster presentations will be shared via a brief PowerPoint presentation with accompanying audio.

Poster Session I – Saturday, December 5
7:00 a.m. – 3:30 p.m. Pacific time

Poster Session II – Sunday, December 6
7:00 a.m. – 3:30 p.m. Pacific time

Poster Session III – Monday, December 7
7:00 a.m. – 3:00 p.m. Pacific time

POSTERCAST

ASH partners with PosterCast to enhance learning in the Poster Sessions at the ASH Annual Meeting. PosterCast is a free iPhone app that will allow meeting attendees to stream the recorded poster presentations in addition to the recording being presented on the ASH virtual meeting platform. This delivery method is ideal for times when participants are away from their computer and have access to their mobile phone or tablet.

ASH POSTER WALKS

Poster walks with content curated by ASH will highlight six posters on a specified topic. Poster authors and key opinion leaders will engage in a panel discussion on the significance of the research presented followed by a live Q&A.

ASH FOUNDATION RUN/WALK

The 2020 ASH Foundation Run/Walk has transitioned to a virtual event. Plan to run or walk your own 3K or 5K route between Friday, November 27, and Friday, December 11, 2020! Register at hematology.org/foundation/run-walk.

To get started, register for the 3K or 5K event. As you run or walk, use the free RaceJoy app or log into your run/walk account to upload your time and see your results appear on our live leaderboards. Proceeds from all individual and group registration fees, as well as additional individual donations will benefit the ASH Restart Award Fund. The RaceJoy app is available in the App Store or Google Play Store.

ASH-A-PALOOZA

The "Trainee Day" attendees may know from past annual meetings has been re-imagined as ASH-a-Palooza! What has emerged is a new educational experience that offers a relaxed, open learning environment for trainees with multiple opportunities for micro learning. All registered attendees are welcome but Trainees, especially, will not want to miss out on the fun. The virtual ASH-a-Palooza will be held from 7:00 a.m. – 12:00 noon Pacific time on Thursday, December 3, and Friday, December 4, and will feature traditional ASH-a-Palooza content in addition to some exciting new components including:

- ASH Talks: 20-minute TED-style talks
- Blood Drops: rapid-fire, micro-learning sessions covering a range of clinical and career issues of interest to hematology trainees
- Blood Buddies: one-on-one, ten-minute mentoring sessions (trainees only)
- NEW Blood Buddy Forums: virtual spaces where faculty will answer questions from a group of attendees (trainees only)
- Special Symposium on Quality: Blood, Debt and Tears: Tackling Burnout in Hematology
- Trainee Didactic Sessions

ASH WELLNESS STUDIO

Between sessions and throughout the day, ASH will feature informal micro-learning on various aspects of resiliency and wellness. We will also offer Daily Zen classes in yoga and tai chi to get you up and moving. Finally, ASH will close the day with a chance to relax with daily meditation classes.

ADDITIONAL RESOURCES

ASH Job Center

The ASH Job Center connects attendees to open hematology and hematology-oncology job opportunities throughout the world. This resource makes it easy to find available positions; search by job title, location, type of employment, or educational requirements. New features include the ability to post your resume and save job listings of interest. Access is available year-round on the ASH website, this service is always free for job seekers.

Mobile App

ASH’s mobile application will provide program and exhibitor information, messaging capability, and general information happening with the 2020 annual meeting. The application includes the full text of the abstracts and the articles available in Hematology 2020 (the ASH Education Program). The application will allow users to add a session to their device's calendar which will build their itinerary for the meeting. A login is no longer required to view application content; a login is only required to contact other attendees and view Education Program articles.

The following smartphones are supported: iPhone and Android; the application will also support the iPad and Google tablets.
GENERAL INFORMATION

All times are in Pacific time. Duplication/recording is prohibited.

MEETING RULES AND REGULATIONS

Participation Requirements and Behavior of All Attendees

False certification of individuals as paid ASH annual meeting attendees, any method of assisting unauthorized persons to gain access to the ASH annual meeting virtual platform, or inappropriate conduct, including but not limited to harassment, threatening actions, or disruptive conduct, will not be tolerated and will be just cause for revoking access to the virtual meeting platform and any related components. ASH reserves the right to expel all parties involved and has no obligation to refund registration fees paid.

All attendees will conduct themselves in a professional manner that is welcoming to all participants and free from any form of discrimination, harassment, or retaliation. Attendees will treat each other with respect and consideration to create an atmosphere of inclusiveness, professionalism, and collegiality. If you or anyone you know is being treated inappropriately, please contact customerservice@hematology.org as soon as possible.

Participation of Financial Professionals

Financial professionals and other individuals whose principal reason for attending the meeting is to seek business opportunities or obtain information affecting investment positions are welcome to register for the meeting. However, the educational and scientific aspects of the meeting are always top priority. Financial professionals are required to identify themselves when interacting with presenters, particularly when asking questions for which the answers may have implications for corporate valuation or positions in equity markets. Speakers and moderators are also asked to give preference to questioners with scientific or clinical inquiries.

Virtual Meeting Platform Data Collection

As a participant of the meeting, you have read and agreed to ASH's Privacy Policy (hematology.org/about/privacy-policy) and ASH's Terms of Service (hematology.org/about/terms-of-service) that are available on the ASH website. Attendees who have questions or concerns can contact ashregistration@spargoinc.com.

Photography and Recording of Copyrighted Material at the ASH Annual Meeting

A. General

Materials presented at the American Society of Hematology ("ASH") annual meeting, including all slides, written and oral presentations, posters, and other materials displayed, shown, or otherwise published during the ASH annual meeting (the "Meeting Materials"), are protected by copyright and may not be publicly displayed or republished without the express written consent of the copyright owner, except as expressly provided in this Policy.

B. Photographs and Audio Recording

1. Limited Right to Share: Except as provided in Section B.2 of this Policy (hematology.org/meetings/annual-meeting/attendee-resources/photography-and-recording#b2), Attendees of the ASH annual meeting may take photographs, screen grabs, and make audio recordings (but no video recordings or live-streaming) of Meeting Materials for personal, non-commercial use, which are licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International license (available in its entirety at http://creativecommons.org/licenses/by-nc-nd/4.0/legalcode).

This means that, except as provided in Section B.2 of this Policy, Attendees may share a limited number of photographs, screen grabs, or short audio recordings of the Meeting Materials in a reasonable manner, as determined by ASH, in any medium or format subject to the following terms:

a. Attribution: an Attendee must give appropriate credit to the original author, and may not in any way suggest that the original author endorses the Attendee or his or her use;

b. Non-Commercial: an Attendee may not use the Meeting Materials for commercial purposes; and

c. No Derivatives: if an Attendee remixes, transforms, or builds upon the Meeting Material, he or she may not distribute or publish the modified material.

2. Poster and Exhibit Hall Presentations: Attendees of the ASH annual meeting may take photographs and screen grabs and make recordings of Meeting Materials associated with Poster and Exhibit Hall presentations and displays for personal, non-commercial use only. Attendees are strictly prohibited from sharing Meeting Materials associated with Poster Presentations or exhibit hall displays without the express consent of the presenter or exhibitor, respectively, and the copyright owner of such Meeting Materials.

C. No Video Recording, Live Audio, or Video Streaming

Sharing any recordings of Meeting Materials, including live streaming audio or video recordings, is strictly prohibited.

D. Violators

Violators of this Policy may have their access to the virtual meeting platform revoked.

E. Disclaimer

Portions of the ASH annual meeting will be recorded. Any photographs or recordings taken during the meeting may be used in future ASH publications, online, or in other ASH materials. Attendance or participation in the meeting constitutes an agreement with ASH by the registrant for the Society to use and distribute the registrant’s image or voice in photographs, videotapes, audiotapes, or other electronic media pertaining to the ASH annual meeting events and activities.
ASH is committed to continuously re-evaluating our policies and processes to ensure that they align with the Accreditation Council for Continuing Medical Education’s (ACCME) increasingly stringent standards. The ACCME defines pharmaceutical and biotechnology companies as commercial interests and categorically considers any presentation given by employees of industry to be promotional in nature.

This year ASH will offer a number of non-certified sessions in programs that are usually eligible for CME credit. These sessions contain one or more talks presented by an employee or owner of an ACCME-defined commercial interest.

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The following sessions (marked with ) with industry-employed presenters will not be offered for CME credit:

**General Sessions**
- Presidential Symposium

**Education Program**
- Aggressive Lymphomas: What Novel Approaches Are Ready for Prime Time? Live Q&A
- Understanding How to Manipulate the Immune System in Immunotherapy for Lymphoma Live Q&A

**Scientific Committee Sessions**
- Joint Session: Scientific Committee on Hematopathology and Clinical Laboratory Hematology & Scientific Committee on Lymphoid Neoplasia: Getting the Most from Minimal Residual Disease Live Q&A
- Scientific Committee on Epigenetics and Genomics: RNA in Normal and Malignant Hematopoiesis Live Q&A
- Scientific Committee on Thrombosis and Vascular Biology: Gut Microbiome and the Endothelium Live Q&A

**Special Scientific Symposia**
- Friend or Foe: The Microbiome, Antibiotics, and Death after Transplant Live Q&A
- Special Symposium on the Basic Science of Hemostasis and Thrombosis Live Q&A

In addition, all sessions in the following programs are not offered for CME credit:

- ASH-A-Palooza (except Special Symposium on Quality)
- ASH Poster Walks
- Company Focus on Disease Posters
- Satellite Symposia (accredited via third party)
- Poster Viewing Sessions
- Product Theaters
- Scientific Workshops @ ASH

**Non-CME Promotional Sessions**
- CME credit is not offered.
ASH STANDS AGAINST RACISM AND INEQUALITY.

As a global hematology community, ASH understands the importance of having individuals with diverse perspectives and experiences in all areas of the field. Through various ASH programs and committees, ASH continues its long-standing commitment to combating inequities in hematology, supporting scientists and clinicians from backgrounds underrepresented in medicine, and embracing diverse voices across the patient and health care communities.

How you can help:

- **Become a mentor.** Serve as a mentor to scientists of underrepresented backgrounds in the ASH Minority Recruitment Initiative.
- **Recognize exemplary colleagues.** Nominate colleagues who represent or reflect diverse experiences for leadership opportunities at ASH.
- **Recruit diverse populations for clinical trials.** The more we know about underrepresented communities, the more we can help. Work to recruit diverse participants in clinical trials through the ASH Research Collaborative.
- **Join the ASH Grassroots Network.** Stay up to date on all of ASH’s advocacy efforts, such as the ASH Sickle Cell Disease Initiative.
- **Donate.** Support the ASH Minority Recruitment Initiative or the ASH Sickle Cell Disease Initiative.
- **Research.** Apply for ASH funding to support your research on health disparities and the social determinants of health at your home institution.
- **Participate in a listening session.** Contribute your story and listen the experiences of others traditionally disadvantaged in medicine.

Learn more about ASH’s efforts to continue to build and nurture a global hematology community. Visit [www.hematology.org/DEI](http://www.hematology.org/DEI).
Amgen is contributing to the advancement of cancer treatment with the investigational BiTE® immuno-oncology platform. This versatile technology is engineered to deliver off-the-shelf therapies that direct patients’ own T cells to target tumor-associated antigens, activating their cytotoxic potential. Currently being investigated in multiple tumor types and extended half-life therapies, BiTE® technology is designed to close the space between patients’ T cells and tumors.

Visit amgenoncology.com to learn more.
# AMERICAN SOCIETY OF HEMATOLOGY
## 62ND ASH® ANNUAL MEETING AND EXPOSITION

### DAY-AT-A-GLANCE

**DECEMBER 2-11, 2020**

*All times are in Pacific time. Duplication/recording is prohibited.*

| WEDNESDAY, DECEMBER 2, 2020 |  
| --- | --- |
| **7:00 a.m. – 10:00 a.m.** Scientific Workshops @ ASH |  
| Scientific Workshop on Myeloid Development |  
| Scientific Workshop on Tumor Immune Interactions in Lymphoid Malignancies |  
| Scientific Workshop on Infectious Disease and Coagulation |  
| **THURSDAY, DECEMBER 3, 2020** |  
| **7:00 a.m. – 7:10 a.m.** ASH-a-Palooza |  
| Welcome Video and Opening Song |  
| **7:00 a.m. – 10:00 a.m.** Scientific Workshops @ ASH |  
| Scientific Workshop on Immune Profiling and Minimal Residual Disease Testing in Multiple Myeloma |  
| Scientific Workshop on Interplay between Coagulation and Malignancy |  
| **9:30 a.m. – 11:00 a.m.** ASH-a-Palooza |  
| Special Symposium on Quality: Blood, Debt and Tears: Tackling Burnout in Hematology |  
| **10:00 a.m. – 12:00 p.m.** ASH-a-Palooza (Open to Trainees Only) |  
| Blood Buddies: Adult Clinical Malignant Hematology |  
| Blood Buddies: Adult Clinical Non-Malignant Hematology |  
| Blood Buddies: Lab & Translational Hematology |  
| Blood Buddies: Pediatric and Adult BMT |  
| Blood Buddies: Pediatric Clinical Malignant Hematology |  
| Blood Buddies: Pediatric Clinical Non-Malignant Hematology |  
| Blood Buddies: PhD Careers |  
| Blood Buddies: Quality Improvement |  
| Blood Buddy Forum: Adult and Pediatric BMT |  
| Blood Buddy Forum: Adult Clinical Malignant Hematology |  
| Blood Buddy Forum: Adult Clinical Non-Malignant Hematology |  
| Blood Buddy Forum: Clinical Careers in Hematology (Private Practice) |  
| Blood Buddy Forum: Government Careers (NIH and FDA) |  
| Blood Buddy Forum: Industry Careers |  
| Blood Buddy Forum: Laboratory and Translational Hematology |  
| Blood Buddy Forum: Medical Educators in Hematology |  
| Blood Buddy Forum: Pediatric Clinical Malignant Hematology |  
| Blood Buddy Forum: Pediatric Clinical Non-Malignant Hematology |  
| Blood Buddy Forum: PhD Careers |  
| Blood Buddy Forum: Systems Based Hematology |  
| **2:00 p.m. – 5:00 p.m.** Scientific Workshops @ ASH |  
| Scientific Workshop on Epidemiology: Disparities in Hematologic Diseases: Risk, Outcomes and Care |  
| Scientific Workshop on Hematology & Aging: Exploring Biomarkers, CHIP, CAR-T and Clotting |  
| Scientific Workshop on Translational Molecular Diagnostics in Hematology |  

*presentations available on demand prior to live Q&A.*
<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>7:00 a.m. – 10:00 a.m.</td>
<td>Satellite Symposia</td>
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<tr>
<td>8:00 a.m. – 8:40 a.m.</td>
<td>ASH-a-Palooza</td>
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<tr>
<td>8:45 a.m. – 9:25 a.m.</td>
<td>ASH-a-Palooza</td>
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<tr>
<td>8:45 a.m. – 9:45 a.m.</td>
<td>ASH-a-Palooza</td>
</tr>
<tr>
<td>10:00 a.m. – 12:00 p.m.</td>
<td>ASH-a-Palooza (Open to Trainees Only)</td>
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**FRIDAY, DECEMBER 4, 2020**

- **7:00 a.m. – 10:00 a.m.** Satellite Symposia
  - A Case-based Workshop: Clinical and Laboratory Aspects of Hemophilia and Thrombosis
  - Acute Myeloid Leukemia: Using Available Evidence and Guidelines to Make Sense of a Rapidly Evolving Treatment Paradigm
  - Advances in Diagnosis and Management of Myelodysplastic Syndromes
  - An Optimized Approach to Sickle Cell Disease Care in a New Era of Treatment
  - Application of Individualized Treatment for CLL/SLL: Novel Agents, Combinations, and Sequencing Therapy
  - Consensus or Controversy? Investigators Discuss Clinical Practice Patterns and Available Research Data Guiding the Management of Patients with Multiple Myeloma (Part 1 of a 4-Part Series)
  - Exploring Antibody Therapy in ALL: How and Why to Integrate Antibody-Based Treatment Into Patient Management
  - How I Think, How I Treat in the New Age of AML Care: Personal Perspectives on New Evidence and Innovative Therapeutics
  - Managing Myeloma: Where We Are, Where We're Going, and Where WE SHOULD Be Going (Time to Choose Sides!)
  - Mapping the New Era in CLL Management: Precision Medicine, Optimized Therapeutic Sequencing, and Patient Perspectives in Treatment-Naive and Relapsed Disease
  - Mastering the Treatment of Myeloid Malignancies in the Era of Personalized Medicine
  - Preparing for Personalized Care in MDS: Integrating Innovative Treatments Into a Cohesive Patient Care Model
  - Understanding Cold Agglutinin Disease: How Do Emerging Treatment Options Have the Potential to Transform Patient Outcomes?

- **7:00 a.m. – 10:00 a.m.** Scientific Workshops @ ASH
  - Scientific Workshop on Germline Predisposition to Hematopoietic Malignancies and Bone Marrow Failure
  - Scientific Workshop on Hematology and Pregnancy
  - Scientific Workshop on What 'Omnics Are Telling Us About Molecular Mechanisms in Sickle Cell Disease

- **7:00 a.m. – 7:10 a.m.** ASH-a-Palooza
- **7:15 a.m. – 7:55 a.m.** ASH-a-Palooza

**Note:** Presentations available on demand prior to live Q&A.
4 Dec 2020  

**Friday**

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### 11:00 a.m. – 2:00 p.m. Satellite Symposia

- Accelerating Toward a Cure for Myeloma: Emerging Data, New Agents, and an Evolving Treatment Paradigm
- Advances in GvHD: Expert Guidance on the Current Treatment Landscape, Optimizing Prophylaxis, and Integrating Novel Therapies
- Advances in Therapy for Inherited Non-Malignant Blood Disorders: Focus on Sickle Cell Disease and Hemophilia
- Building New Management Models for NHL Care: Tumor Board Insights on Innovative Therapies in FL and DLBCL
- Clinical Advances in Immune Thrombocytopenia: Integrating New Therapies
- Consensus or Controversy? Investigators Discuss Clinical Practice Patterns and Available Research Data Guiding the Management of Patients with Chronic Lymphocytic Leukemia (Part 2 of a 4-Part Series)
- D is for Diagnosis: Detecting and Treating Rare Disorders in Hematologic Practice
- Individualizing Treatment Plans and Optimizing Outcomes for Patients with MF and PV: Stories Behind the Science
- Medical Crossfire®: Bridging Unmet Needs with Emerging Data in Relapsed/Refractory DLBCL to Improve Patient Outcomes
- Medical Crossfire®: Exploring the Modern Management of Acute Lymphoblastic Leukemia from AYA to Adult
- New Targets, New Data, New Guidelines: Assessing Treatment Options to Personalize Care in B-Cell Lymphomas
- Taking Action with Minimal Residual Disease: Technique, Role, and Utilization of MRD to Improve Outcomes in Patients with Hematologic Malignancies
- T-Cell Lymphoma Tumor Board: Application of Novel Agents for the Treatment of PTCL and CTCL
- The Evolving Role of PI3K Inhibitors for the Management of Hematologic Malignancies: Integration of Recent Data Sets into Clinical Practice

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### 3:00 p.m. – 6:00 p.m. Satellite Symposia

- A Fresh Look at CAR T-Cell Therapy: Recent Advances, New Evidence, and Evolving Paradigms to Improve Patient Care
- Addressing the Medical Need in CLL: How BTK Inhibitors Are Improving Outcomes

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### 7:00 p.m. – 10:00 p.m. Satellite Symposia

- Adopting New Approaches for Relapsed/Refractory Follicular Lymphoma
- Advances in CAR T-Cell Therapy: What Does the Future Look Like?
- Applying Data to Practice: The Role of BTK Inhibitors for the Treatment of CLL
- Consensus or Controversy? Investigators Discuss Clinical Practice Patterns and Available Research Data Guiding the Management of Patients with Acute Myeloid Leukemia (Part 3 of a 4-Part Series)
- Contemporary Management of Hemophilia A: Expert Guidance to Improve Patient Outcomes
- Evolving the Standard of Care: Rethinking the Treatment Paradigm for Iron Deficiency Anemia
- Experts Debate Optimal Approaches to the Treatment of Multiple Myeloma
- How to Do It™ Interactive Workshop: Taking Action with Clinical Advances in Chronic Lymphocytic Leukemia
- Key Considerations: Advances in Gene Therapy for Hemophilia
- New Agents and Therapeutic Strategies in Beta-Thalassemia
- Sickle Cell Disease: Targeting Complications to Improve Long-term Implications
- Transforming the Treatment Paradigm for Patients With MDS

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_presentsations available on demand prior to live Q&A._
PRESENTATIONS AVAILABLE ON DEMAND PRIOR TO LIVE Q&A.
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<tr>
<td>9:30 a.m.</td>
<td>Diagnostic and Prognostic Models in VTE Management: Ready for Primetime? - Live Q&amp;A</td>
</tr>
<tr>
<td>9:30 a.m.</td>
<td>Myelodysplastic Syndromes: What We Have and What We Want - Live Q&amp;A</td>
</tr>
<tr>
<td>9:00 a.m.</td>
<td>A Map for the Changing Landscape of CLL - Live Q&amp;A</td>
</tr>
<tr>
<td>8:15 a.m.</td>
<td>Advances in the Laboratory Assessment of Hemostatic and Thrombotic Disorders - Live Q&amp;A</td>
</tr>
<tr>
<td>7:30 a.m.</td>
<td>Scientific Committee on Stem Cells and Regenerative Medicine: Extrinsic Regulation of Hematopoietic Stem Cell Emergence and Homeostasis - Live Q&amp;A</td>
</tr>
<tr>
<td>7:30 a.m.</td>
<td>Oral Abstract Sessions</td>
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<tr>
<td>10:15 a.m.</td>
<td>Joint Session: Scientific Committee on Myeloid Biology &amp; Scientific Committee on Myeloid Neoplasia: Single Cell Analysis of Hematopoietic Development and Clonal Complexity of Malignant Hematopoiesis - Live Q&amp;A</td>
</tr>
<tr>
<td>11:00 a.m.</td>
<td>Scientific Committee on Transplantation Biology and Cellular Therapies: Challenges in Cell Therapy: Relapse and Toxicities - Live Q&amp;A</td>
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<tr>
<td>10:15 a.m.</td>
<td>Education Program</td>
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<tr>
<td>11:00 a.m.</td>
<td>Oral Abstract Sessions</td>
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<tr>
<td>10:15 a.m.</td>
<td>ASH Wellness Studio</td>
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<tr>
<td>11:00 a.m.</td>
<td>Learn from Industry by Visiting the Industry Solutions Center</td>
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A Discussion of Efficacy and Safety on a Treatment Option for Adults With Relapsed or Refractory (R/R) Acute Lymphoblastic Leukemia (ALL)
Advances in the Treatment of Cold Agglutinin Disease
A New Treatment Option for Patients with Acute Myeloid Leukemia
Introducing BLENREP (belantamab mafodotin-blmf) for Injection, for Intravenous Use

NGS Solutions That Help Simplify Your Journey to Answers in Hemato-oncology Research

POLIVY+BR: Advance the Possibilities in R/R DLBCL, NOS, After at Least 2 Prior Therapies

12:00 p.m. – 12:15 p.m.  ASH Wellness Studio

12:00 p.m. – 12:45 p.m.  Education Program

Anxiety Provoking Hematology Consults, Second Edition - Live Q&A

Beyond the Marrow: Major Non-Hematologic Complications of Inherited Bone Marrow Failure Syndromes - Live Q&A

Handling Challenging Questions in the Management of CML - Live Q&A

12:00 p.m. – 12:45 p.m.  Scientific Program

Scientific Committee on Epigenetics and Genomics: RNA in Normal and Malignant Hematopoiesis - Live Q&A

12:00 p.m. – 12:45 p.m.  Education Spotlight Sessions

Appropriate Use of Imaging in Patients with Lymphoma - Live Q&A

Emicizumab’s Impact on the Landscape of Hemophilia A Treatment: Two Artists Debate the View - Live Q&A

12:00 p.m. – 1:30 p.m.  Oral Abstract Sessions

112. Thalassemia and Globin Gene Regulation (153–158)

614. Acute Lymphoblastic Leukemia: Therapy, excluding Transplantation: Chimeric Antigen Receptor T Cell Therapy (159–164)

616. Acute Myeloid Leukemia: Novel Therapy, excluding Transplantation: Advances in immunotherapeutics for management of AML (165–170)

625. Lymphoma: Pre-Clinical—Chemotherapy and Biologic Agents: Novel Approaches to Overcome Resistance (171–176)

653. Myeloma/Amyloidosis: Therapy, excluding Transplantation: Novel Therapies Targeting B Cell Maturation Antigen in Relapsed/Refractory Multiple Myeloma (177–182)

711. Cell Collection and Processing (183–188)


803. Emerging Diagnostic Tools and Techniques II (195–200)

904. Outcomes Research - Non-Malignant Conditions: Venous Thromboembolism Associated with Cancer and/or COVID-19 (201–206)

905. Outcomes Research—Malignant Conditions (Lymphoid Disease): Outcomes Research Real World Data Healthcare Disparities (207–212)

906. Outcomes Research—Malignant Conditions (Myeloid Disease): Real World Management And Outcome (213–218)

12:00 p.m. – 1:30 p.m.  Special Interest Session

Special Scientific Session on Race and Science

1:30 p.m. – 2:00 p.m.  ASH Wellness Studio

1:30 p.m. – 2:00 p.m.  Learn from Industry by Visiting the Industry Solutions Center

2:00 p.m. – 2:45 p.m.  Education Program

Challenging Situations for Patients with Aggressive Lymphomas - Live Q&A

Managing Toxicities of Targeted Therapies in CLL - Live Q&A

The Emerging Role of Targeted Therapies and Cell Therapy in Transplant - Live Q&A

2:00 p.m. – 3:00 p.m.  General Sessions

Ham-Wasserman Lecture: Therapeutic Development and Current Uses of BCL-2 Inhibition

2:00 p.m. – 3:30 p.m.  Oral Abstract Sessions

102. Regulation of Iron Metabolism (219–223)


322. Disorders of Coagulation or Fibrinolysis: Hemophilia: Genes, Joints, and PK (230–235)

332. Anticoagulation and Antithrombotic Therapy: Novel Agents, Reversal Drugs and Indications (236–241)


508. Bone Marrow Failure: Advancing Our Biologic Understanding in Inherited and Acquired Bone Marrow Failure Disorders (254–259)

604. Molecular Pharmacology and Drug Resistance in Myeloid Diseases (260–265)

612. Acute Lymphoblastic Leukemia: Clinical Studies: Innovative Chemotherapy and Immunotherapy Strategies in Frontline and Relapsed Disease (266–271)

617. Acute Myeloid Leukemia: Biology, Cytogenetics, and Molecular Markers in Diagnosis and Prognosis: MRD and Novel molecular Markers (272–277)

621. Lymphoma—Genetic/Epigenetic Biology: Genetic and epigenetic profiling of malignant lymphomas (278–283)

636. Myelodysplastic Syndromes—Basic and Translational Studies (284–289)


732. Clinical Allogeneic Transplantation Results III (296–301)

901. Health Services Research—Non-Malignant Conditions I (302–305)

902. Health Services Research—Malignant Conditions (Lymphoid Disease) I (306–311)

2:45 p.m. – 3:00 p.m.  ASH Wellness Studio

3:30 p.m. – 4:30 p.m.  General Sessions

ASH Awards Presentation
## SUNDAY, DECEMBER 6, 2020

<table>
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<tr>
<th>Time</th>
<th>Location/Activity</th>
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<tr>
<td>6:30 a.m. – 7:00 a.m.</td>
<td>ASH Wellness Studio</td>
</tr>
<tr>
<td>7:00 a.m. – 3:30 p.m.</td>
<td>Visit the Industry Solutions Center (Exhibits and Other Learning)</td>
</tr>
<tr>
<td>7:00 a.m. – 3:30 p.m.</td>
<td>Poster Session II – Presentations</td>
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### 101. Red Cells and Erythropoiesis
- Structure and Function
- Metabolism
- Survival
- Excluding Iron: Poster II (1671–1687)

### 112. Thalassemia and Globin Gene Regulation
- Poster II (1969–1970)

### 113. Hemoglobinopathies, Excluding Thalassemia
- Basic and Translational Science: Poster II (1703–1713)

### 114. Hemoglobinopathies, Excluding Thalassemia
- Clinical: Poster II (1714–1733)

### 201. Granulocytes, Monocytes, and Macrophages
- Poster II (1734–1741)

### 203. Lymphocytes, Lymphocyte Activation, and Immunodeficiency
- Including HIV and Other Infections: Poster II (1742–1749)

### 301. Vascular Wall Biology
- Endothelial Progenitor Cells, and Platelet Adhesion, Activation, and Biochemistry: Poster II (1750–1753)

### 311. Disorders of Platelet Number or Function
- Poster II (1754–1771)

### 321. Blood Coagulation and Fibrinolytic Factors
- Poster II (1772–1779)

### 322. Disorders of Coagulation or Fibrinolysis
- Poster II (1780–1800)

### 331. Pathophysiology of Thrombosis
- Poster II (1801–1808)

### 332. Anticoagulation and Antithrombotic Therapy
- Poster II (1809–1819)

### 401. Basic Science and Clinical Practice in Blood Transfusion
- Poster II (1820–1828)

### 501. Hematopoietic Stem and Progenitor Biology
- Poster II (1829–1836)

### 502. Hematopoiesis: Regulation of Gene Transcription, Cytokines, Signal Transduction, Apoptosis, and Cell Cycle Regulation
- Poster II (1837–1841)

### 503. Clonal Hematopoiesis
- Aging and Inflammation: Poster II (1842–1845)

### 504. Molecular Pharmacology and Drug Resistance in Myeloid Diseases
- Poster II (1878–1886)

### 505. Bone Marrow Failure: Poster II (1849–1861)

### 508. Disordered Gene Expression in Hematologic Malignancy, including Disordered Epigenetic Regulation
- Poster II (1862–1870)

### 603. Oncogenes and Tumor Suppressors
- Poster II (1871–1877)

### 604. Molecular Pharmacology and Drug Resistance in Myeloid Diseases
- Poster II (1878–1886)

### 605. Molecular Pharmacology, Drug Resistance—Lymphoid and Other Diseases
- Poster II (1887–1893)

### 612. Acute Lymphoblastic Leukemia
- Clinical Studies: Poster II (1894–1903)

### 613. Acute Myeloid Leukemia
- Clinical Studies: Poster II (1904–1931)

### 614. Acute Lymphoblastic Leukemia
- Therapy, excluding Transplantation: Poster II (1932–1942)

### 615. Acute Myeloid Leukemia
- Commercially Available Therapy, excluding Transplantation: Poster II (1943–1953)

### 616. Acute Myeloid Leukemia

### 617. Acute Myeloid Leukemia
- Biology, Cytogenetics, and Molecular Markers in Diagnosis and Prognosis: Poster II (1978–2006)

### 618. Acute Lymphoblastic Leukemia
- Biology, Cytogenetics, and Molecular Markers in Diagnosis and Prognosis: Poster II (2007–2016)

### 621. Lymphoma
- Genetic/Epigenetic Biology: Poster II (2017–2027)

### 622. Lymphoma
- Biology—Non-Genetic Studies: Poster II (2028–2035)

### 623. Mantle Cell, Follicular, and Other Indolent B-Cell Lymphoma
- Clinical Studies: Poster II (2036–2064)

### 624. Hodgkin Lymphoma and T/NK Cell Lymphoma
- Clinical Studies: Poster II (2065–2086)

### 625. Lymphoma
- Pre-Clinical—Chemotherapy and Biologic Agents: Poster II (2087–2095)

### 626. Aggressive Lymphoma (Diffuse Large B-Cell and Other Aggressive B-Cell Non-Hodgkin Lymphomas)
- Results from Prospective Clinical Trials: Poster II (2096–2114)

### 627. Aggressive Lymphoma (Diffuse Large B-Cell and Other Aggressive B-Cell Non-Hodgkin Lymphomas)
- Results from Retrospective/Observational Studies: Poster II (2115–2143)

### 631. Chronic Myeloid Leukemia
- Biology and Pathophysiology, excluding Therapy: Poster II (2144–2145)

### 632. Chronic Myeloid Leukemia
- Therapy: Poster II (2146–2158)

### 633. Myeloproliferative Syndromes
- Clinical: Poster II (2159–2172)

### 635. Myeloproliferative Syndromes
- Basic Science: Poster II (2173–2178)

### 636. Myelodysplastic Syndromes
- Basic and Translational Studies: Poster II (2179–2187)

### 637. Myelodysplastic Syndromes—Clinical Studies
- Poster II (2188–2205)

### 641. CLL
- Biology and Pathophysiology, excluding Therapy: Poster II (2206–2215)

### 642. CLL
- Therapy, excluding Transplantation: Poster II (2216–2232)

### 651. Myeloma
- Biology and Pathophysiology, excluding Therapy: Poster II (2233–2267)

### 652. Myeloma
- Pathophysiology and Pre-Clinical Studies, excluding Therapy: Poster II (2268–2275)

### 653. Myeloma
- Therapy, excluding Transplantation: Poster II (2276–2328)

### 701. Experimental Transplantation
- Basic Biology, Pre-Clinical Models: Poster II (2329–2332)

### 703. Adoptive Immunotherapy
- Mechanisms and New Approaches: Poster II (2333–2344)

### 704. Immunotherapies
- Poster II (2345–2357)

### 711. Cell Collection and Processing
- Poster II (2358–2362)

### 721. Clinical Allogeneic Transplantation
- Conditioning Regimens, Engraftment, and Acute Transplant Toxicities: Poster II (2363–2387)

### 722. Clinical Allogeneic Transplantation
- Acute and Chronic GVHD, Immune Reconstitution: Poster II (2388–2400)

### 723. Clinical Allogeneic and Autologous Transplantation
- Late Complications and Approaches to Disease Recurrence: Poster II (2401–2411)

### 731. Clinical Autologous Transplantation
- Results: Poster II (2412–2424)

### 732. Clinical Allogeneic Transplantation
- Results: Poster II (2425–2445)

### 801. Gene Editing, Therapy and Transfer
- Poster II (2446–2453)

### 802. Chemical Biology and Experimental Therapeutics
- Poster II (2454–2458)

### 803. Emerging Diagnostic Tools and Techniques
- Poster II (2459–2470)

### 901. Health Services Research—Non-Malignant Conditions
- Poster II (2471–2497)

### 902. Health Services Research—Malignant Conditions
- Lymphoid Disease: Poster II (2498–2517)
903. Health Services Research—Malignant Conditions (Myeloid Disease): Poster II (2518–2527)
904. Outcomes Research—Non-Malignant Conditions: Poster II (2528–2545)
905. Outcomes Research—Malignant Conditions (Lymphoid Disease): Poster II (2546–2566)
906. Outcomes Research—Malignant Conditions (Myeloid Disease): Poster II (2567–2574)

7:00 a.m. – 9:00 a.m.  General Sessions

Plenary Scientific Session

8:00 a.m. – 8:15 a.m.  ASH Wellness Studio

9:00 a.m. – 9:30 a.m. Learn from Industry by Visiting the Industry Solutions Center

9:00 a.m. – 9:30 a.m.  ASH Wellness Studio

9:30 a.m. – 10:15 a.m.  Education Program
Immunotherapy in Multiple Myeloma - Live Q&A
Platelet Transfusions for Hematology / Oncology Patients: Taking a More Granular Look - Live Q&A

9:30 a.m. – 10:15 a.m.  Scientific Program
Scientific Committee on Red Cell Biology: Location, Location, Location - Live Q&A

9:30 a.m. – 10:15 a.m.  Special Scientific Symposia
Friend or Foe: The Microbiome, Antibiotics and Death After Transplant - Live Q&A

9:30 a.m. – 10:30 a.m.  General Sessions


9:30 a.m. – 11:00 a.m.  Special Interest Session
The 2020 Pandemic: Latest Insights on COVID-19

9:30 a.m. – 11:00 a.m.  Oral Abstract Sessions

203. Lymphocytes, Lymphocyte Activation, and Immunodeficiency, including HIV and Other Infections: Hematologic Malignancies and COVID-19 (312–317)
301. Vascular Wall Biology, Endothelial Progenitor Cells, and Platelet Adhesion, Activation, and Biochemistry (318–323)
613. Acute Myeloid Leukemia: Novel Therapies and Treatment Approaches (330–335)
623. Mantle Cell, Follicular, and Other Indolent B-Cell Lymphoma—Clinical Studies: Clinical studies in Waldenstrom's Macroglobulinemia, Marginal Zone Lymphoma and Hairy Cell Leukemia (336–341)
634. Myeloproliferative Syndromes: Clinical: Translational Science in MPN—Hitting the Mark (342–347)

641. CLL: Biology and Pathophysiology, excluding Therapy: Treatment Resistance and Prognosis (348–352)
803. Emerging Diagnostic Tools and Techniques I (359–363)
904. Outcomes Research - Non-Malignant Conditions: Sickle Cell Disease and Beta Thalassemia (364–369)
905. Outcomes Research—Malignant Conditions (Lymphoid Disease): Outcomes Research Real World Data Lymphoma (370–375)

10:15 a.m. – 10:30 a.m.  ASH Wellness Studio

11:00 a.m. – 12:00 p.m. Learn from Industry by Visiting the Industry Solutions Center

11:00 a.m. – 12:00 p.m.  Product Theaters
An Anti-CD38 Directed Antibody for the Treatment for Appropriate Patients with Relapsed Refractory Multiple Myeloma
A Targeted Therapeutic Approach for Relapsed or Refractory FLT3m+ AML Patients
A Treatment Option for Adult Patients With Newly Diagnosed CP Ph+ CML or Patients With CML Resistant/Intolerant to Prior TKI Therapy
Bristol Myers Squibb Product Theater
Developing the Future of CAR-T Cell Therapy Today
Redefining Approaches in Early-Line Multiple Myeloma Treatment
Review of Efficacy and Safety of Monjuvi (tafasitamab-cixix): FDA-Approved Monoclonal Antibody in Combination with Lenalidomide for Adult Patients with R/R DLBCL Who Have Received at Least One Prior Therapy

12:00 p.m. – 12:15 p.m.  ASH Wellness Studio

12:00 p.m. – 12:45 p.m.  Education Program
Indolent Lymphomas: Answers to Smoldering Questions - Live Q&A
Selected Hemostasis and Thrombosis Topics in Women - Live Q&A

12:00 p.m. – 12:45 p.m.  Scientific Program
Joint Session: Scientific Committee on Blood Disorders in Childhood & Scientific Committee on Immunology and Host Defense: What the Children Can Teach Us: Congenital Immunodeficiencies Shed Light on Immunity, Hematopoiesis, and Cancer - Live Q&A

12:00 p.m. – 12:45 p.m.  Special Interest Session
ASH Choosing Wisely® Campaign: 2020 ASH Choosing Wisely Champions - Live Q&A

12:00 p.m. – 12:45 p.m.  Scientific Spotlight Sessions
Cellular Breakups: Transfusion and Hyperhemolysis in Sickle Cell Disease - Live Q&A
Checkpoint Blockade: Defining A New Treatment Paradigm in Hodgkin Lymphoma and Allogeneic Transplantation - Live Q&A

12:00 p.m. – 1:30 p.m.  Oral Abstract Sessions

311. Disorders of Platelet Number or Function: Thrombotic Thrombocytopenic Purpura and Platelet Dysfunction (376–381)
503. Clonal Hematopoiesis: Aging and Inflammation (382–387)
613. Acute Myeloid Leukemia: Molecular Mutations and Their Prognostic Implications (388–393)
618. Acute Lymphoblastic Leukemia: Biology, Cytogenetics, and Molecular Markers in Diagnosis and Prognosis II (394–399)
626. Aggressive Lymphoma (Diffuse Large B-Cell and Other Aggressive B-Cell Non-Hodgkin Lymphomas)—Results from Prospective Clinical Trials: Updates and advances in bispecific antibody therapies and autologous CAR-T approaches (400–405)
636. Myelodysplastic Syndromes – Basic and Translational Studies (406–411)
653. Myeloma/Amyloidosis: Therapy, excluding Transplantation: Relapsed/Refractory Multiple Myeloma (412–417)
901. Health Services Research—Non-Malignant Conditions II (424–429)
903. Health Services Research—Malignant Conditions (Myeloid Disease): Barriers to Cancer Care Delivery in Myeloid Malignancies (430–435)
905. Outcomes Research—Malignant Conditions (Lymphoid Disease): Outcomes Research Real World Data Myeloma (436–441)

1:30 p.m. – 2:00 p.m.  ASH Wellness Studio

1:30 p.m. – 2:00 p.m. Learn from Industry by Visiting the Industry Solutions Center

2:00 p.m. – 2:45 p.m.  Education Program
Caring for Patients with Acute Leukemia in Community Hospitals: Who, What, and When to Refer? - Live Q&A
Monoclonal Gammopathies of Determined Significance - Live Q&A
The Brain and Pain in Sickle Cell Disease: Understanding the Role of Sensory, Cognition and Neuropathic Pathways in the SCD Chronic Pain Experience - Live Q&A

2:00 p.m. – 2:45 p.m.  Scientific Program
Joint Session: Scientific Committee on Hematopathology and Clinical Laboratory Hematology & Scientific Committee on Lymphoid Neoplasia: Getting the Most from Minimal Residual Disease - Live Q&A
Scientific Committee on Megakaryocytes and Platelets: Molecular Basis of Platelet/Megakaryocyte Dysfunction: Novel Approaches - Live Q&A

2:45 p.m. – 3:00 p.m. ASH Wellness Studio
### MONDAY, DECEMBER 7, 2020

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<td>ASH Wellness Studio</td>
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<tr>
<td>7:00 a.m. – 3:30 p.m.</td>
<td>Visit the Industry Solutions Center (Exhibits and Other Learning)</td>
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<tr>
<td>7:00 a.m. – 3:00 p.m.</td>
<td>Poster Session III – Presentations</td>
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1. **Red Cells and Erythropoiesis, Structure and Function, Metabolism, and Survival, Excluding Iron:** Poster III (2575–2591)
2. **Regulation of Iron Metabolism:** Poster III (2592–2599)
3. **Thalassemia and Globin Gene Regulation:** Poster III (2600–2607)
4. **Hemoglobinopathies, Excluding Thalassemia—Basic and Translational Science:** Poster III (2608–2618)
5. **Hemoglobinopathies, Excluding Thalassemia—Clinical:** Poster III (2619–2638)
6. **Granulocytes, Monocytes, and Macrophages:** Poster III (2639–2646)
7. **Lymphocytes, Lymphocyte Activation, and Immunodeficiency, including HIV and Other Infections:** Poster III (2647–2653)
8. **Vascular Wall Biology, Endothelial Progenitor Cells, and Platelet Adhesion, Activation, and Biochemistry:** Poster III (2654–2658)
9. **Disorders of Platelet Number or Function:** Poster III (2659–2677)
10. **Blood Coagulation and Fibrinolytic Factors:** Poster III (2678–2684)
11. **Disorders of Coagulation or Fibrinolysis:** Poster III (2685–2704)
12. **Pathophysiology of Thrombosis:** Poster III (2705–2711)
13. **Anticoagulation and Antithrombotic Therapy:** Poster III (2712–2721)
14. **Basic Science and Clinical Practice in Blood Transfusion:** Poster III (2722–2729)
15. **Hematopoietic Stem and Progenitor Biology:** Poster III (2730–2737)
16. **Hematopoiesis: Regulation of Gene Transcription, Cytokines, Signal Transduction, Apoptosis, and Cell Cycle Regulation:** Poster III (2738–2742)
17. **Clonal Hematopoiesis: Aging and Inflammation:** Poster III (2743–2746)
18. **Hematopoiesis and Stem Cells: Microenvironment, Cell Adhesion, and Stromal Stem Cells:** Poster III (2747–2748)
19. **Bone Marrow Failure:** Poster III (2749–2761)
20. **Disordered Gene Expression in Hematologic Malignancy, including Disordered Epigenetic Regulation:** Poster III (2762–2769)
21. **Oncogenes and Tumor Suppressors:** Poster III (2770–2776)
22. **Molecular Pharmacology and Drug Resistance in Myeloid Diseases:** Poster III (2777–2785)
23. **Molecular Pharmacology, Drug Resistance—Lymphoid and Other Diseases:** Poster III (2786–2792)
24. **Acute Lymphoblastic Leukemia: Clinical Studies:** Poster III (2793–2803)
25. **Acute Myeloid Leukemia: Clinical Studies:** Poster III (2804–2832)
26. **Acute Lymphoblastic Leukemia: Therapy, excluding Transplantation:** Poster III (2833–2842)
27. **Acute Myeloid Leukemia: Commerially Available Therapy, excluding Transplantation:** Poster III (2843–2853)
28. **Acute Myeloid Leukemia: Novel Therapy, excluding Transplantation:** Poster III (2854–2877)
29. **Acute Myeloid Leukemia: Biology, Cytogenetics, and Molecular Markers in Diagnosis and Prognosis:** Poster III (2878–2906)
30. **Acute Myeloid Leukemia: Biology, Cytogenetics, and Molecular Markers in Diagnosis and Prognosis:** Poster III (2907–2915)
31. **Lymphoma—Genetic/Epigenetic Biology:** Poster III (2916–2926)
32. **Lymphoma Biology—Non-Clinical Studies:** Poster III (2927–2933)
33. **Mantle Cell, Follicular, and Other Indolent B-Cell Lymphoma—Clinical Studies:** Poster III (2934–2963)
34. **Hodgkin Lymphoma and T/NK Cell Lymphoma—Clinical Studies:** Poster III (2964–3006)
35. **Lymphoma: Pre-Clinical—Chemotherapy and Biologic Agents:** Poster III (3007–3015)
36. **Aggressive Lymphoma (Diffuse Large B-Cell and Other Aggressive B-Cell Non-Hodgkin Lymphomas)—Results from Prospective Clinical Trials:** Poster III (3016–3034)
37. **Aggressive Lymphoma (Diffuse Large B-Cell and Other Aggressive B-Cell Non-Hodgkin Lymphomas)—Results from Retrospective/Observational Studies:** Poster III (3035–3063)
38. **Chronic Myeloid Leukemia: Biology and Pathophysiology, excluding Therapy:** Poster III (3064–3064)
39. **Chronic Myeloid Leukemia: Therapy:** Poster III (3065–3078)
40. **Myeloproliferative Syndromes: Clinical:** Poster III (3079–3092)
41. **Myeloproliferative Syndromes: Basic Science:** Poster III (3093–3098)
42. **Myelodysplastic Syndromes—Basic and Translational Studies:** Poster III (3099–3107)
43. **Myelodysplastic Syndromes—Clinical Studies:** Poster III (3108–3125)
44. **CLL: Biology and Pathophysiology, excluding Therapy:** Poster III (3126–3135)
45. **CLL: Therapy, excluding Transplantation:** Poster III (3136–3152)
46. **Myeloma: Biology and Pathophysiology, excluding Therapy:** Poster III (3153–3187)
47. **Myeloma: Pathophysiology and Pre-Clinical Studies, excluding Therapy:** Poster III (3188–3195)
48. **Myeloma: Therapy, excluding Transplantation:** Poster III (3196–3248)
49. **Experimental Transplantation: Basic Biology, Pre-Clinical Models:** Poster III (3249–3254)
50. **Adaptive Immunotherapy: Mechanisms and New Approaches:** Poster III (3255–3265)
51. **Immunotherapies:** Poster III (3266–3278)
52. **Cell Collection and Processing:** Poster III (3279–3283)
53. **Clinical Allogeneic Transplantation: Conditioning Regimens, Engraftment, and Acute Transplant Toxicities:** Poster III (3284–3308)
54. **Clinical Allogeneic Transplantation: Acute and Chronic GVHD, Immune Reconstitution:** Poster III (3309–3320)
55. **Clinical Allogeneic and Autologous Transplantation: Late Complications and Approaches to Disease Recurrence:** Poster III (3321–3330)
56. **Clinical Autologous Transplantation: Results:** Poster III (3331–3343)
57. **Clinical Allogeneic Transplantation: Results:** Poster III (3344–3365)
58. **Gene Editing, Therapy and Transfer:** Poster III (3366–3373)
59. **Chemical Biology and Experimental Therapeutics:** Poster III (3374–3378)
60. **Emerging Diagnostic Tools and Techniques:** Poster III (3379–3389)
61. **Health Services Research—Non-Malignant Conditions:** Poster III (3390–3416)
62. **Health Services Research—Malignant Conditions (Lymphoid Disease):** Poster III (3417–3436)
## DAY-AT-A-GLANCE

### Monday

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<td>7:00 a.m. – 7:45 a.m.</td>
<td><strong>Education Program</strong>&lt;br&gt;Acute Myeloid Leukemia - So Many Treatment Options; How Do You Decide? - Live Q&amp;A&lt;br&gt;Improving Symptom Control for Children with Hematological Malignancies - Live Q&amp;A&lt;br&gt;Infection Risk, Immunization Recommendations, and Antimicrobial Prophylaxis Needs when Treating Non-Malignant Hematologic Disorders - Wash Your Hands and What Else? - Live Q&amp;A&lt;br&gt;Understanding How to Manipulate the Immune System in Immunotherapy for Lymphoma - Live Q&amp;A&lt;br&gt;What Hematologists Need to Know About Giving and Stopping Aspirin - Live Q&amp;A</td>
</tr>
<tr>
<td>7:45 a.m. – 8:00 a.m.</td>
<td>ASH Wellness Studio</td>
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<tr>
<td>8:00 a.m. – 9:00 a.m.</td>
<td>Learn from Industry by Visiting the Industry Solutions Center</td>
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<tr>
<td>9:00 a.m. – 9:45 a.m.</td>
<td><strong>Education Program</strong>&lt;br&gt;Myeloproliferative Disorders: Too Many Cells, Too Few Therapies - How Do We Choose? - Live Q&amp;A&lt;br&gt;Updates on the Role of Non-Anticoagulant Interventions in Venous Thromboembolism - Live Q&amp;A&lt;br&gt;Yin and Yang of Autoimmunity and Immunodeficiencies in Hematology - Live Q&amp;A</td>
</tr>
<tr>
<td>9:45 a.m. – 10:00 a.m.</td>
<td><strong>Scientific Program</strong>&lt;br&gt;Scientific Committee on Hematopoiesis: Hematopoietic Aging: Mechanisms and Consequences - Live Q&amp;A&lt;br&gt;Scientific Committee on Hemostasis: Mechanisms and Modifiers of Bleeding - Live Q&amp;A&lt;br&gt;Scientific Committee on Thrombosis and Vascular Biology: Gut Microbiome and the Endothelium - Live Q&amp;A</td>
</tr>
<tr>
<td>10:00 a.m. – 10:30 a.m.</td>
<td><strong>Education Spotlight Sessions</strong>&lt;br&gt;How to Manage Common Challenging Situations in Patients with Multiple Myeloma - Live Q&amp;A&lt;br&gt;Transfusion and Anemia in Global Health - Live Q&amp;A</td>
</tr>
<tr>
<td>10:30 a.m. – 10:45 a.m.</td>
<td><strong>General Sessions</strong>&lt;br&gt;Ernest Beutler Lecture and Prize: Targeting the Aberrant Leukemia Epigenome</td>
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<td>10:45 a.m. – 11:00 a.m.</td>
<td>Oral Abstract Sessions</td>
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<td>11:00 a.m. – 11:30 a.m.</td>
<td><strong>Education Spotlight Sessions</strong>&lt;br&gt;Hemoglobinopathies, Excluding Thalassemia—Clinical: Assessment and Prevention of End-Organ Injury in Sickle Cell Disease (502–506)</td>
</tr>
<tr>
<td>11:30 a.m. – 12:00 p.m.</td>
<td><strong>General Sessions</strong>&lt;br&gt;Disorders of Coagulation or Fibrinolysis: Hemothilia: Treatment and Inhibitors (507–511)</td>
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<tr>
<td>12:00 p.m. – 1:00 p.m.</td>
<td><strong>Education Spotlight Sessions</strong>&lt;br&gt;Pathophysiology of Thrombosis II (512–517)</td>
</tr>
<tr>
<td>1:00 p.m. – 2:00 p.m.</td>
<td><strong>General Sessions</strong>&lt;br&gt;Oncogenes and Tumor suppressors: Pre-clinical models and Novel Targets (518–523)</td>
</tr>
<tr>
<td>2:00 p.m. – 3:00 p.m.</td>
<td><strong>General Sessions</strong>&lt;br&gt;Molecular Pharmacology, Drug Resistance—Lymphoid and Other Diseases: Molecular pharmacology and drug resistance mechanisms in lymphoproliferative disorders (524–529)</td>
</tr>
<tr>
<td>3:00 p.m. – 4:00 p.m.</td>
<td><strong>General Sessions</strong>&lt;br&gt;Aggressive Lymphoma (Diffuse Large B-Cell and Other Aggressive B-Cell Non-Hodgkin Lymphomas)—Results from Retrospective/Observational Studies: Biomarkers and Prognostication in Aggressive B-Cell Non-Hodgkin Lymphomas (530–535)</td>
</tr>
<tr>
<td>4:00 p.m. – 5:00 p.m.</td>
<td><strong>General Sessions</strong>&lt;br&gt;Myelodysplastic Syndromes—Clinical Studies: Personalized Clinical-Decision Tools and treatment of lower risk MDS (536–541)</td>
</tr>
<tr>
<td>5:00 p.m. – 6:00 p.m.</td>
<td><strong>General Sessions</strong>&lt;br&gt;C. L.L. Therapy, excluding Transplantation (542–547)</td>
</tr>
<tr>
<td>6:00 p.m. – 7:00 p.m.</td>
<td><strong>General Sessions</strong>&lt;br&gt;Myeloma/Amyloidosis: Therapy, excluding Transplantation: Initial Therapy (548–553)</td>
</tr>
<tr>
<td>7:00 p.m. – 8:00 p.m.</td>
<td><strong>General Sessions</strong>&lt;br&gt;Adoptive Immunotherapy: Mechanisms and New Approaches: Optimizing CAR T cells for Improved Outcomes (554–558)</td>
</tr>
<tr>
<td>8:00 p.m. – 9:00 p.m.</td>
<td><strong>General Sessions</strong>&lt;br&gt;Clinical Allogeneic Transplantation Results II (559–564)</td>
</tr>
<tr>
<td>9:00 p.m. – 10:00 p.m.</td>
<td><strong>General Sessions</strong>&lt;br&gt;Chemical Biology and Experimental Therapeutics: Innovations in Therapy and Drug Screening (565–570)</td>
</tr>
</tbody>
</table>

*All times are in Pacific time. Duplication/recording is prohibited.*

**Presentations available on demand prior to live Q&A.**
<table>
<thead>
<tr>
<th>Time</th>
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<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:45 a.m. – 10:00 a.m.</td>
<td>ASH Wellness Studio</td>
<td>clonoSEQ and The Future of MRD</td>
</tr>
<tr>
<td>10:30 a.m. – 11:30 a.m.</td>
<td>Learn from Industry by Visiting the Industry Solutions Center</td>
<td>Epcoritamab, a Novel Subcutaneous Bi-specific CD3xCD20 Antibody for the Treatment of Patients with B-NHL: From Bench to Bedside and Beyond Exploring Outcomes With Fixed-Duration Treatment in CLL and New Evidence in First-Line AML Pivotal Clinical Trial Data That Supports Treatment Decisions and Patient Care PNH: Key Clinical Considerations for a Terminal Complement-Mediated Disease Scientific Exploration of Novel Targets for AML, MM, and NHL: A Glimpse into Areas of Research and Development Trust the Experience of a rFVIIa Product Used for a Wide Range of Indications</td>
</tr>
<tr>
<td>10:30 a.m. – 11:30 a.m.</td>
<td>Product Theaters</td>
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</tr>
<tr>
<td>11:30 a.m. – 12:15 p.m.</td>
<td>Education Program</td>
<td>Aggressive Lymphomas: What Novel Approaches Are Ready for Prime Time? - Live Q&amp;A Chronic Transfusion Support: Challenging Cases - Live Q&amp;A Junior Faculty Career Development Education Session - Live Q&amp;A Pediatric Hematological Malignancies: CARs for Kids - Live Q&amp;A</td>
</tr>
<tr>
<td>11:30 a.m. – 12:15 p.m.</td>
<td>Scientific Program</td>
<td>Scientific Committee on Bone Marrow Failure: Precision Medicine Approaches to Leukemia Predisposition in Bone Marrow Failure - Live Q&amp;A Scientific Committee on Iron and Heme: Well-Regulated vs Malfunctioning Mechanisms of Iron Metabolism - Live Q&amp;A Scientific Committee on Plasma Cell Neoplasia: The Immune System in Multiple Myeloma - Live Q&amp;A</td>
</tr>
<tr>
<td>12:15 p.m. – 12:30 p.m.</td>
<td>ASH Wellness Studio</td>
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<td>1:00 p.m. – 1:30 p.m.</td>
<td>ASH Wellness Studio</td>
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<tr>
<td>1:00 p.m. – 1:30 p.m.</td>
<td>Learn from Industry by Visiting the Industry Solutions Center</td>
<td></td>
</tr>
<tr>
<td>1:30 p.m. – 2:15 p.m.</td>
<td>Education Program</td>
<td>Genetic Testing for Heritable Hematologic Disorders 101 - Live Q&amp;A Out of Balance: Anemias Due to Disordered Iron Homeostasis - Live Q&amp;A</td>
</tr>
<tr>
<td>1:30 p.m. – 2:15 p.m.</td>
<td>Special Scientific Symposia</td>
<td>Special Symposium on the Basic Science of Hemostasis and Thrombosis - Live Q&amp;A</td>
</tr>
<tr>
<td>1:30 p.m. – 2:30 p.m.</td>
<td>General Sessions</td>
<td>E. Donnall Thomas Lecture and Prize: Quiescence and Cell Metabolism in Hematopoietic Stem Cells</td>
</tr>
<tr>
<td>2:15 p.m. – 2:30 p.m.</td>
<td>ASH Wellness Studio</td>
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</table>
## TUESDAY, DECEMBER 8, 2020

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Event Details</th>
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<tbody>
<tr>
<td>6:30 a.m. – 7:00 a.m.</td>
<td>ASH Wellness Studio</td>
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</tr>
<tr>
<td>7:00 a.m. – 3:00 p.m.</td>
<td>Visit the Industry Solutions Center (Exhibits and Other Learning)</td>
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</tr>
<tr>
<td>7:00 a.m. – 9:00 a.m.</td>
<td>General Sessions</td>
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<tr>
<td>8:00 a.m. – 8:15 a.m.</td>
<td>ASH Wellness Studio</td>
<td>Late-Breaking Abstracts Session</td>
</tr>
<tr>
<td>9:00 a.m. – 9:15 a.m.</td>
<td>ASH Wellness Studio</td>
<td>9:30 a.m. – 11:00 a.m. General Sessions</td>
</tr>
<tr>
<td>9:30 a.m. – 11:00 a.m.</td>
<td>ASH Wellness Studio</td>
<td>Presidential Symposium: Universal Donor Solutions in Hematology</td>
</tr>
<tr>
<td>11:00 a.m. – 11:15 a.m.</td>
<td>ASH Wellness Studio</td>
<td>11:15 a.m. – 11:30 a.m. General Sessions</td>
</tr>
<tr>
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<td>Business Meeting</td>
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<tr>
<td>11:30 a.m. – 1:00 p.m.</td>
<td>ASH Wellness Studio</td>
<td>Special Interest Session</td>
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<td>Modeling COVID-19: From the Lab to the World</td>
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<tr>
<td>1:00 p.m. – 1:30 p.m.</td>
<td>ASH Wellness Studio</td>
<td>1:30 p.m. – 3:00 p.m. General Sessions</td>
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<td>Best of ASH</td>
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<tr>
<td>1:30 p.m. – 3:00 p.m.</td>
<td>ASH Wellness Studio</td>
<td>2:00 p.m. – 2:15 p.m. ASH Wellness Studio</td>
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<tr>
<td></td>
<td></td>
<td>3:00 p.m. – 3:30 p.m. ASH Wellness Studio</td>
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</tbody>
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## WEDNESDAY, DECEMBER 9, 2020

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Event Details</th>
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<tbody>
<tr>
<td>7:00 a.m. – 8:00 a.m.</td>
<td>ASH Poster Walks</td>
<td>Current Challenges in Treating Hematologic Malignancies</td>
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<tr>
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<td>Germ line Predisposition to Hematopoietic Malignancies and Bone Marrow Failure</td>
</tr>
<tr>
<td>8:00 a.m. – 9:00 a.m.</td>
<td>Company Focus on Disease Posters</td>
<td>AstraZeneca's Focus on B-Cell Malignancy Posters</td>
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## THURSDAY, DECEMBER 10, 2020

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Event Details</th>
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<tbody>
<tr>
<td>7:00 a.m. – 8:00 a.m.</td>
<td>ASH Poster Walks</td>
<td>A Walk Down Immunotherapy Lane: Watch out for the CARs</td>
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<td>Blood and Bone—From Hematopoiesis to Hemostasis</td>
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<td>Clinical Trials in Progress</td>
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<td>Hematology and Aging</td>
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<td>Novel Diagnostics and Treatments for Sickle Cell Disease: A New Era</td>
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<td>Quality Improvement Poster Walk</td>
</tr>
<tr>
<td>2:00 p.m. – 3:00 p.m.</td>
<td>ASH Poster Walks</td>
<td>Hemostasis &amp; Thrombosis</td>
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<td>Health Care Equity Matters</td>
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## FRIDAY, DECEMBER 11, 2020

More events to be added! Check the mobile app and online for the latest schedule.
Medical Mistakes and Miracles: Surviving Hemophilia, HIV and Hepatitis C

Medicine demands an engagement in clinical science that can lead physicians to lose sight of the impact of disease on patients and their families. This session will showcase the personal journey of one patient and shines a unique light on the intersection of medicine and humanity.

Bob Massie was born with severe classic hemophilia. Because of his childhood health issues, Massie spent ages six through twelve in leg braces and a wheelchair. His family spent a few years living in France, where Massie’s healthcare was covered by the French government, and he was able to regain the ability to walk. In this talk, Massie chronicles his story in five moving and compelling parts that illuminate the progress, as well as the tragic mistakes, that have transformed the care of patients with hemophilia.

GUEST SPEAKER

Featuring:
Robert K. Massie, MA, PhD
Activist, Author, Politician
Boston, MA

SUNDAY, DECEMBER 6*
2:00 P.M. - 3:30 P.M.

* This session is part of the ASH Annual Meeting program and requires a meeting subscription to access this session.

hematology.org | bloodjournal.org
INVITED SESSIONS
Blood® Podcast
Weekly highlights of select articles in each issue
GENERAL SESSIONS

These signature sessions are designed to be of interest to a broad and diverse audience and include the prestigious Plenary Scientific Session, Best of ASH, and the Presidential Symposium. Many of the General Sessions also honor distinguished leaders in the field through awards and special lectures.

All times are in Pacific time. Duplication/recording is prohibited.

SATURDAY

Fireside Chat with Dr. Anthony Fauci

Sat 7:00 a.m. – 7:30 a.m.

Chair: Stéphanie J. Lee, MD, MPH, President, American Society of Hematology, Clinical Research Division, Fred Hutchinson Cancer Research Center, Seattle, WA

Moderator: Stéphanie J. Lee, MD, MPH, President, American Society of Hematology, Clinical Research Division, Fred Hutchinson Cancer Research Center, Seattle, WA

Speaker: Anthony S. Fauci, MD, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD

Ham-Wasserman Lecture

Sat 2:00 p.m. – 3:00 p.m.

Therapeutic Development and Current Uses of BCL-2 Inhibition

ASH Awards Presentation

Sat 3:30 p.m. – 4:30 p.m.

Chair: Stéphanie J. Lee, MD, MPH, President, American Society of Hematology, Clinical Research Division, Fred Hutchinson Cancer Research Center, Seattle, WA

SUNDAY

Plenary Scientific Session

Sun 7:00 a.m. – 9:00 a.m.

Chair: Stéphanie J. Lee, MD, MPH, President, American Society of Hematology, Clinical Research Division, Fred Hutchinson Cancer Research Center, Seattle, WA


Sun 9:30 a.m. – 10:30 a.m.

Chair: Stéphanie J. Lee, MD, MPH, President, American Society of Hematology, Clinical Research Division, Fred Hutchinson Cancer Research Center, Seattle, WA

Co-Chairs: John G. Gribben, MD, DSc, FRCP, FRCPATH, FMedSci, Barts Cancer Institute, London, United Kingdom

Speakers: Crystal L. Mackall, MD, Stanford University School of Medicine, Stanford, CA

North American Perspective: Targeted Cellular Immunotherapy

Luca Vago, MD, PhD, IRCCS San Raffaele Scientific Institute, Milano, Italy

European Perspective: Hematopoietic Cell Transplant

Of interest to PhD attendees. CME credit is not offered.
### GENERAL SESSIONS

**MONDAY**

**Ernest Beutler Lecture and Prize**

<table>
<thead>
<tr>
<th>Monday</th>
<th>9:00 a.m. – 10:00 a.m.</th>
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</table>

**Targeting the Aberrant Leukemia Epigenome**

**Chair:**  
STEPHANIE J. LEE, MD, MPH, President, American Society of Hematology, Clinical Research Division, Fred Hutchinson Cancer Research Center, Seattle, WA

**Speakers:**  
ARI MELNICK, MD, Weill Cornell Medical College, New York, NY  
**Basic Science**  
COURTNEY D. DINARDO, MD, MSc, University of Texas MD Anderson Cancer Center, Houston, TX  
**Clinical Science/Translational Research**

### TUESDAY

**Late-Breaking Abstracts Session**

<table>
<thead>
<tr>
<th>Tuesday</th>
<th>7:00 a.m. – 9:00 a.m.</th>
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</table>

**Co-Chairs:**  
CHRISTOPHER R. FLOWERS, MD, MS, University of Texas MD Anderson Cancer Center, Houston, TX  
SIOBAN KEEL, MD, University of Washington, Seattle, WA

**Presidential Symposium: Universal Donor Solutions in Hematology**

<table>
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<tr>
<th>Tuesday</th>
<th>9:30 a.m. – 11:00 a.m.</th>
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</table>

**Chair:**  
STEPHANIE J. LEE, MD, MPH, President, American Society of Hematology, Clinical Research Division, Fred Hutchinson Cancer Research Center, Seattle, WA

**Speakers:**  
GAY M. CROOKS, MB, BS, University of California–Los Angeles, Los Angeles, CA  
**Off-the-Shelf Cellular Immunotherapy**  
BRONWEN E. SHAW, PhD, MRCP, FRCPATH, Medical College of Wisconsin, Milwaukee, WI  
**A Stem Cell Donor for Every Patient**

**E. Donnall Thomas Lecture and Prize**

<table>
<thead>
<tr>
<th>Monday</th>
<th>1:30 p.m. – 2:30 p.m.</th>
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</table>

**Quiescence and Cell Metabolism in Hematopoietic Stem Cells**

**Chair:**  
STEPHANIE J. LEE, MD, MPH, President, American Society of Hematology, Clinical Research Division, Fred Hutchinson Cancer Research Center, Seattle, WA

**Speaker:**  
TOSHI SUDA, MD, PhD, National University of Singapore, Singapore

**Stella P. Chou, MD, Boston Children's Hospital, Boston, MA**

**Universal Platelets and Red Cells**

**Business Meeting**

<table>
<thead>
<tr>
<th>Tuesday</th>
<th>11:15 a.m. – 11:30 a.m.</th>
</tr>
</thead>
</table>

**Chair:**  
STEPHANIE J. LEE, MD, MPH, President, American Society of Hematology, Clinical Research Division, Fred Hutchinson Cancer Research Center, Seattle, WA

**Best of ASH**

<table>
<thead>
<tr>
<th>Tuesday</th>
<th>1:30 p.m. – 3:00 p.m.</th>
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</table>

**Co-Chairs:**  
ALISA S. WOLBERG, PHD, University of North Carolina at Chapel Hill, Chapel Hill, NC  
LESLEY KEAN, MD, PhD, Boston Children’s Hospital, Boston, MA
SPECIAL INTEREST SESSIONS

These smaller sessions provide the opportunity for ASH’s various communities to focus on specific topics of interest.

All times are in Pacific time. Duplication/recording is prohibited.

THURSDAY

Special Symposium on Quality: Blood, Debt and Tears: Tackling Burnout in Hematology

Thursday 9:30 a.m. – 11:00 a.m.

Co-Chairs:
Sarah H. O’Brien, MD, Nationwide Children’s Hospital, Columbus, OH
Nathan T. Connell, MD, MPH, Brigham and Women’s Hospital, Boston, MA

Speaker:
Shelly DeV, Sunnybrook Health Sciences Center, Toronto, Ontario, Canada

Trainee Competitors:
Amar H. Kelkar, MD, University of Florida Health Shands Hospital, Gainesville, FL
Wilson Andres Vasconez, MD, University of Miami/Jackson Memorial Hospital, Miami, FL
Jafar Al-Mondhiry, MD, MA, University of California—Los Angeles, Los Angeles, CA
Andrea Anampa-Guzmán, Universidad Nacional Mayor de San Marcos, Lima, Peru

SUNDAY

The 2020 Pandemic: Latest Insights on COVID-19

Sunday 9:30 a.m. – 11:00 a.m.

ASH Choosing Wisely® Campaign: 2020
ASH Choosing Wisely Champions - Live Q&A

Sunday 12:00 p.m. – 12:45 p.m.

Chair:
Anita Rajasekhar, MD, University of Florida – Shands Hospital, Gainesville, FL

Panelists:
Sriman Swarup, MD, MBBS, Texas Tech University Health Science Center, Lubbock, TX
Hind Salama, King Abdulaziz Medical City, Riyadh, Saudi Arabia
Arielle L. Langer, MD, MPH, Brigham and Women’s Hospital, Wellesley, MA

Blood & Beyond

Sunday 2:00 p.m. – 3:30 p.m.

Medical Mistakes and Miracles: Surviving Hemophilia, HIV and Hepatitis C

Chair:
Nancy Berliner, MD, Editor-in-Chief, Blood, Brigham and Women’s Hospital, Boston, MA

Speaker:
Robert K. Massie, MA, PhD
TUESDAY

Modeling COVID-19: From the Lab to the World

Tuesday 11:30 a.m. – 1:00 p.m.
The “Trainee Day” attendees may know from past annual meetings has been re-imagined as ASH-a-Palooza! What has emerged is a new educational experience that will offer a relaxed, open learning environment for trainees with multiple opportunities for micro learning. Trainees won’t want to miss this fun, interactive, two-day event, complete with engaging ASH Talks, “speed mentoring,” and more!

ASH-a-Palooza is open for all registered attendees, but Blood Buddies and Blood Buddy Forums are reserved for trainee attendees only.

**All times are in Pacific time. Duplication/recording is prohibited.**

### THURSDAY

#### Welcome Video and Opening Song

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Thursday</td>
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#### Blood Drops: 💢

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<tr>
<td>Thursday</td>
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<td>8:45 a.m. – 9:25 a.m.</td>
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</table>

These micro-learning sessions will be presented with one-, two-, or three-speaker panels. Each Blood Drop will be presented twice.

- ASH MEI
- CRTI
- Health Disparities
- HONORS
- MMSAP
- PhD
- Phy-Sci
- Sickle Cell Disease
- Special Interest

#### ASH Talk 1: Leadership 💢

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#### Special Symposium on Quality: Blood, Debt and Tears: Tackling Burnout in Hematology

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</table>

**Speaker:**

**Shelly DeV,** Sunnybrook Health Sciences Center, Toronto, Ontario, Canada  
*Physician Burnout*

**Trainee Competitors:**

- **Amar H. Kelkar,** MD, University of Florida Health Shands Hospital, Gainesville, FL  
- **Wilson Andres Vascione,** MD, University of Miami/Jackson Memorial Hospital, Miami, FL  
- **Jafar Al-Mondhry,** MD, MA, University of California—Los Angeles, Los Angeles, CA  
- **Andrea Anampa-Guzman,** Universidad Nacional Mayor de San Marcos, Lima, Peru

#### Blood Buddies 💢

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Blood Buddies are one-on-one, ten-minute sessions to discuss career tracks and seek advice from faculty mentors. Blood Buddy sessions are reserved for trainee attendees only.

- Adult Clinical Malignant Hematology
- Adult Clinical Non-Malignant Hematology
- Lab & Translational Hematology
- Pediatric Clinical Malignant Hematology
- Pediatric Clinical Non-Malignant Hematology
- Pediatric and Adult BMT
- PhD Careers
- Quality Improvement

*Of interest to PhD attendees.*
## Blood Buddy Forums

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Blood Buddy Forums are virtual spaces where faculty will answer questions from a group of attendees. Blood Buddy Forums are reserved for trainee attendees only.

- Adult and Pediatric BMT
- Adult Clinical Malignant Hematology
- Adult Clinical Non-Malignant Hematology

## FRIDAY

### ASH-a-Palooza Thank You Video

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### Blood Drops

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These micro-learning sessions will be presented with one-, two-, or three-speaker panels. Each Blood Drop will be presented twice.

- AMFDP
- Finding Your Career
- Hemostasis and Thrombosis
- Quality Improvement
- RTAF
- Scholar
- TRTH
- Wellness

### ASH Talk 2: Racial Disparities in Healthcare

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### Trainee Didactic Sessions

<table>
<thead>
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<tr>
<td>Friday</td>
<td>8:45 a.m. – 9:45 a.m.</td>
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</table>

- Academic and Industry Career Pathway
- How to Transition from a Trainee to Faculty
- Intermediate Funding
- Quality Improvement, Quality Research in Hematology

- Clinical Careers in Hematology (Private Practice)
- Government Careers (NIH and FDA)
- Industry Careers
- Laboratory and Translational Hematology
- Pediatric Clinical Malignant Hematology
- Pediatric Clinical Non-Malignant Hematology
- PhD Careers
- Systems Based Hematology
Invites You to Attend:

How to Get Published in a Peer-Reviewed Journal

The ability to communicate one’s work effectively by publication in high-impact journals is a benchmark for success in academic medicine. Even high-quality work may not be accepted if not presented in a well-crafted manuscript. Dr. Berliner will lead a panel discussion that will provide insight into the elements of a high-quality manuscript worthy of publication in Blood and tips on avoiding common errors that might result in rejection.

CHAIR: 
Nancy Berliner, MD
Editor-in-Chief, Blood,
Brigham and Women’s Hospital
Boston, MA

Early Access Beginning on Wednesday, December 2*

* This session is part of the ASH Annual Meeting program and requires a meeting subscription to access this session.
LOOK TOWARD NEW HORIZONS
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NEW THIS YEAR: All Education Program sessions presentations are pre-recorded and can be viewed beginning Tuesday, December 2 (designated with 🎥). Live question-and-answer sessions to accompany each session will held from Saturday, December 5, through Monday, December 7 at the times below. The Live Q&A sessions will consist of a brief summary of the full-length presentations followed by live interactions with the presenters.

Attendees are encouraged to view the pre-recorded presentations prior to the Live Q&A session.

All times are in Pacific time. Duplication/recording is prohibited.

**SATURDAY**

**A Map for the Changing Landscape of CLL - Live Q&A**

Saturday 7:30 a.m. – 8:15 a.m.

**Chair:**
Jacqueline C. Barrientos, MD, MS, Northwell Health Cancer Institute, Zucker School of Medicine at Hofstra/Northwell, Lake Success, NY

**Speakers:**
Carol Moreno, MD, PhD, Hospital de la Santa Creu i Sant Pau, Barcelona, Spain
Standard Approaches to Relapsed CLL after Frontline Chemoimmunotherapy

Jacqueline C. Barrientos, MD, MS, Department of Medicine, Hofstra North Shore–Long Island Jewish School of Medicine, Great Neck, NY
Chemotherapy-Free Frontline Therapy for CLL: Is It Worth It?

Anthony R. Mateo, MD, Memorial Sloan Kettering Cancer Center, New York, NY
Approaches for Relapsed CLL After Chemotherapy-Free Frontline Regimens

**Advances in the Laboratory Assessment of Hemostatic and Thrombotic Disorders - Live Q&A**

Saturday 7:30 a.m. – 8:15 a.m.

**Chair:**
Michele P. Lambert, MD, Children’s Hospital of Philadelphia, Philadelphia, PA

**Speakers:**
Johanna A. Kremer Hovinga Streibel, MD, University Hospital Bern, Bern, Switzerland
The Laboratory Evaluation of Patients with Microangiopathic Hemolytic Anemia

Michele P. Lambert, MD, Children’s Hospital of Philadelphia, Philadelphia, PA
Improving Interpretation of Genetic Testing for Hereditary Hemorrhagic, Thrombotic, and Platelet Disorders

Rita Selby, MBBS, FRCPC, University Health Network & Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
Expanding Clinical Roles for Viscoelastic Testing

**Diagnostic and Prognostic Models in VTE Management: Ready for Primetime? - Live Q&A**

Saturday 9:30 a.m. – 10:15 a.m.

**Chair:**
Fionnuala Ni Ainle, MD, PhD, University College Dublin, Dublin, Ireland

**Speakers:**
Frederikus A. Klok, MD, PhD, Leiden University Medical Center, Leiden, Netherlands
When Is it Safe to Treat PE at Home?

Fionnuala Ni Ainle, MD, PhD, University College Dublin, Dublin, Ireland
Who Are the Patients at High Risk of Recurrent Thrombosis?

Chapters based on these presentations will be published in Hematology 2020, the ASH Education Program.
Myelodysplastic Syndromes: What We Have and What We Want - Live Q&A

Saturday 9:30 a.m. – 10:15 a.m.

Chair:
Hetty E. Carraway, MD, MBA, Cleveland Clinic, Cleveland, OH

Speakers:
Uwe Platzecker, MD, University Hospital Leipzig, Leipzig, Germany
Risk Stratification in MDS
Hetty E. Carraway, MD, MBA, Cleveland Clinic, Cleveland, OH
Therapy for Lower Risk MDS
Bart L. Scott, MD, Fred Hutchinson Cancer Center, Seattle, WA
Existing Agents, Novel Agents, or Transplantation for High Risk MDS

Anxiety Provoking Hematology Consults, Second Edition - Live Q&A

Saturday 12:00 p.m. – 12:45 p.m.

Chair:
Jeffrey Szer, MBBS, Royal Melbourne Hospital, Melbourne, Victoria, Australia

Speakers:
Kenneth L. McClain, MD, PhD, Texas Children’s Cancer and Hematology Centers, Houston, TX
Histiocytic Disorders: Novel Insights into Biology and Implications for Therapy (Langerhans and Erdheim-Chester)
Michael Linenberger, MD, University of Washington, Fred Hutchinson Cancer Research Center, Seattle, WA
Updates on the Diagnosis and Management of the Most Common Porphyrias – AIP and EPP
Ari Zimran, MD, Shaare Zedek Medical Center, Jerusalem, Israel
Gaucher Disease

Beyond the Marrow: Major Non-Hematologic Complications of Inherited Bone Marrow Failure Syndromes - Live Q&A

Saturday 12:00 p.m. – 12:45 p.m.

Chair:
Neelam Giri, MD, National Cancer Institute, National Institutes of Health, Bethesda, MD

Speakers:
Kristen E. Schratz, MD, Johns Hopkins University School of Medicine, Baltimore, MD
The Many Sequelae of Telomere Biology Disorders
Neelam Giri, MD, National Cancer Institute, National Institutes of Health, Bethesda, MD
Non-Hematologic Cancer in Marrow Failure
Carmem M. S. Bonfim, MD, PhD, Federal University of Parana, Curitiba, Parana, Brazil
Special Considerations for Pre-and Post-Transplant in Inherited Marrow Failure Syndromes

Handling Challenging Questions in the Management of CML - Live Q&A

Saturday 12:00 p.m. – 12:45 p.m.

Chair:
Vivian G. Oehler, MD, Fred Hutchinson Cancer Research Center, Seattle, WA

Speakers:
Vivian G. Oehler, MD, Fred Hutchinson Cancer Research Center, Seattle, WA
First Generation vs. Second Generation TKI: Which is Best At Diagnosis of Chronic Phase CML?
Delphine Rea, MD, PhD, Saint Louis University Hospital, Paris, France
When is it safe to stop TKIs?
Jorge E. Cortes, MD, Georgia Cancer Center, Augusta University, Augusta, GA
How to manage CML patients with comorbidities?

Challenging Situations for Patients with Aggressive Lymphomas - Live Q&A

Saturday 2:00 p.m. – 2:45 p.m.

Chair:
Oreofe O. Odejide, MD, MPH, Dana-Farber Cancer Institute, Boston, MA
SUNDAY

**Immunotherapy in Multiple Myeloma - Live Q&A**

Sunday 9:30 a.m. – 10:15 a.m.

Chair: **Ajai Chari**, MD, Mount Sinai School of Medicine, New York, NY

Speakers:

**Niels W. C. J. Van De Donk**, MD, VU University Medical Center, Amsterdam, Netherlands

*Sequencing Multiple Myeloma Therapies With and After Antibody Therapies*

**Eric L. Smith**, MD, PhD, Dana-Farber Cancer Institute, Boston, MA

*The Future of CAR T Cells in Multiple Myeloma*

**Ajai Chari**, MD, Mount Sinai School of Medicine, New York, NY

*Talk 3 Bispecific, Trispecific, and Other Novel Immune Treatments in Myeloma*

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**Platelet Transfusions for Hematology / Oncology Patients: Taking a More Granular Look - Live Q&A**

Sunday 9:30 a.m. – 10:15 a.m.

Chair: **Darrell J. Triulzi**, MD, Institute for Transfusion Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA

Speakers:

**Darrell J. Triulzi**, MD, Institute for Transfusion Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA

*How Well Do Platelets Prevent Bleeding?*

**Nancy M. Dunbar**, MD, Dartmouth Hitchcock Medical Center, Lebanon, NH

*Does ABO and RhD Matching Matter for Platelet Transfusion?*
CLAUDIA S. COHN, MD, PhD, University of Minnesota, Minneapolis, MN
Platelet Transfusion Refractoriness - How Do I Diagnose and Manage?

**Indolent Lymphomas: Answers to Smoldering Questions - Live Q&A**

**Chair:**
GILLES SALLES, MD, PhD, Centre Hospitalier Lyon-Sud, Lyon, France

**Speakers:**
GILLES SALLES, MD, PhD, Centre Hospitalier Lyon-Sud, Lyon, France
How Do I Sequence Therapy for Follicular Lymphoma?
PIER LUIGI ZINZANI, MD, PhD, University of Bologna, Bologna, Italy
How Do I Sequence Therapy for Marginal Zone Lymphomas?
SONALI M. SMITH, MD, University of Chicago, Chicago, IL
Transformed Lymphoma - What Should I Do Now?

**Selected Hemostasis and Thrombosis Topics in Women - Live Q&A**

**Chair:**
CLAIRE MCLINTOCK, MD, Redhealth, Auckland City Hospital, Auckland, New Zealand

**Speakers:**
CLAIRE MCLINTOCK, MD, Redhealth, Auckland City Hospital, Auckland, New Zealand
Prevention and Treatment of Postpartum Hemorrhage
PAULA D. JAMES, MD, FRCPC, Queen’s University, Kingston, Ontario, Canada
Women and Bleeding Disorders: Diagnostic Challenges
BETHANY T. SAMUELSON BANNOW, MD, Oregon Health & Science University, Portland, OR
Management of Heavy Menstrual Bleeding on Anticoagulation

**The Brain and Pain in Sickle Cell Disease: Understanding the Role of Sensory, Cognition and Neuropathic Pathways in the SCD Chronic Pain Experience - Live Q&A**

**Chair:**
IFEYINWA OSUNKWO, MD, MPH, Levine Cancer Institute, Charlotte, NC

**Speakers:**
AMANDA M. BRANDOW, DO, MS, Medical College of Wisconsin, Milwaukee, WI
Neuropathic Pain in Sickle Cell Disease: Measurement and Management
IFEYINWA OSUNKWO, MD, MPH, Levine Cancer Institute, Charlotte, NC
Optimizing the Management of Chronic Pain in Sickle Cell Disease
LAWRENCE LONG, MD, UCSF Benioff Children’s Hospital, Oakland, CA
Building a Contemporary Pain Management Strategy for SCD Patients in Your Practice in 2021

**Caring for Patients with Acute Leukemia in Community Hospitals: Who, What, and When to Refer? - Live Q&A**

**Chair:**
ANNA B. HALPERN, MD, University of Washington, Seattle, WA

**Speakers:**
ANNA B. HALPERN, MD, University of Washington, Seattle, WA
Practice patterns and Outcomes for Patients with Acute [Myeloid] Leukemia
ANAND J. JILELLA, MD, Medical College of Georgia At Augusta University, Augusta, GA
Optimizing [AML] Management in Community Centers and When to Refer
RANDY TAPI-LITZ, MD, University of California–San Diego, La Jolla, CA
Supportive Care for Patients with Acute Leukemias
EDUCATION SESSIONS

5–7 Dec 2020

All times are in Pacific time. Duplication/recording is prohibited.

EDUCATION SESSIONS

MONDAY

**Monoclonal Gammopathies of Determined Significance - Live Q&A**

**Sunday** 2:00 p.m. – 2:45 p.m.

**Chair:**

GIOVANNI PALLADINI, MD, PhD, Università Degli Studi Di Pavia, Pavia, Italy

**Speakers:**

GIOVANNI PALLADINI, MD, PhD, Università Degli Studi Di Pavia, Pavia, Italy

Management of AL Amyloidosis in 2020

JORGE J. CASTILLO, MD, Dana-Farber Cancer Institute, Boston, MA

Management of Waldenström Macroglobulinemia in 2020

ANGELA DISPENZIERI, MD, Mayo Clinic, Rochester, MN

Monoclonal Gammopathies of Clinical Significance

**Acute Myeloid Leukemia - So Many Treatment Options; How Do You Decide? - Live Q&A**

**Monday** 7:00 a.m. – 7:45 a.m.

**Chair:**

ALISON R. WALKER, MD, The Ohio State University Medical Center, Columbus, OH

**Speakers:**

JACQUELINE S. GARCIA, MD, Dana-Farber Cancer Institute, Boston, MA

Does Patient Fitness Play a Role in Determining First-Line Treatment for AML

ALISON R. WALKER, MD, The Ohio State University Medical Center, Columbus, OH

How to Approach Shared Decision Making in Determining Maintenance, Consolidation Therapy and Transplant

EDUNICE S. WANG, MD, Roswell Park Comprehensive Cancer Center, Buffalo, NY

Management of Toxicities Associated with Targeted Therapies: When to Push Through and When to Stop

**Improving Symptom Control for Children with Hematological Malignancies - Live Q&A**

**Monday** 7:00 a.m. – 7:45 a.m.

**Chair:**

LILLIAN SUNG, MD, PhD, The Hospital for Sick Children, Toronto, Ontario, Canada

**Speakers:**

LILLIAN SUNG, MD, PhD, The Hospital for Sick Children, Toronto, Ontario, Canada

Symptom Screening in Routine Care - Time to Move Beyond Research?


**Monday** 7:00 a.m. – 7:45 a.m.

**Chair:**

STEPHAN MOLL, MD, University of North Carolina School of Medicine, Chapel Hill, NC

**Speakers:**

TAMARA P. MILLER, MD, MSc, Emory University School of Medicine/Children’s Healthcare of Atlanta, Atlanta, GA

Capturing Treatment Toxicities in Clinical Practice

ROBERT PHILLIPS, MD, Leeds Children’s Hospital, Leeds, United Kingdom

Interventions to Improve Symptoms

**Surgical splenectomy and Autosplenectomy when Treating Non-Malignant Hematologic Disorders: Infection Risk, Immunization Recommendations, Antimicrobial Prophylaxis Needs**

**LUISE MALPICA CASTILLO, MD, University of North Carolina at Chapel Hill, Chapel Hill, NC**

Practical Approach to Monitoring, Prevention, and Management of Infectious Complications Associated with Systemic Steroid and Other Immunosuppressive Agent Therapies in Non-Malignant Hematology

Presentations available on demand prior to live Q&A. of interest to PhD attendees. CME credit is not offered.
Presentations available on demand prior to live Q&A.

Myeloproliferative Disorders: Too Many Cells, Too Few Therapies - How Do We Choose? - Live Q&A

Monday 9:00 a.m. – 9:45 a.m.

Chair:
ALISON R. MOLITERTNO, MD, Johns Hopkins University School of Medicine, Baltimore, MD

Speakers:
MRINAL M. PATNAIK, MD, MBBS, Mayo Clinic, Rochester, MN
Myeloproliferative/Myelodysplastic Overlap Syndromes: Diagnosis and Treatment

ALISON R. MOLITERTNO, MD, Johns Hopkins University School of Medicine, Baltimore, MD
Applied Genomics in MPD

OLATOYOSI ODENIKE, MD, University of Chicago, Chicago, IL
Myelofibrosis: When to Refer for Allogeneic Transplantation

Updates on the Role of Non-Anticoagulant Interventions in Venous Thromboembolism - Live Q&A

Monday 9:00 a.m. – 9:45 a.m.

Chair:
ANITA RAJASEKHER, MD, University of Florida–Shands Hospital, Gainesville, FL

Speakers:
KENNETH A. BAUER, MD, Harvard Medical School, Beth Israel Deaconess Medical Center, Boston, MA
Thrombolytic Therapy in Patients with VTE

ANITA RAJASEKHER, MD, University of Florida–Shands Hospital, Gainesville, FL
Inferior Vena Cava Filters: A Framework for Evidence-based Use

KAREN A. BREEN, MD, Guys and St Thomas; NHS Foundation Trust, London, United Kingdom
Role of Venous Stenting for VTE

Yin and Yang of Autoimmunity and Immunodeficiencies in Hematology - Live Q&A

Monday 9:00 a.m. – 9:45 a.m.

Chair:
ROSHINI SARAH ABRAHAM, PhD, Nationwide Children’s Hospital, Columbus, OH

Understanding How to Manipulate the Immune System in Immunotherapy for Lymphoma - Live Q&A

Monday 7:00 a.m. – 7:45 a.m.

Chair:
STEPHEN M. ANSELL, MD, PhD, Mayo Clinic, Rochester, MN

Speakers:
STEPHEN M. ANSELL, MD, PhD, Mayo Clinic, Rochester, MN
Fundamentals of Immunology for Understanding Immunotherapy

CATHERINE DIEFENBACH, MD, New York University School of Medicine, NYU Cancer Institute, New York, NY
Immunotherapy with Drugs

DAVID L. PORTER, MD, University of Pennsylvania, Philadelphia, PA
Immunotherapy with Cells

What Hematologists Need to Know About Giving and Stopping Aspirin - Live Q&A

Monday 7:00 a.m. – 7:45 a.m.

Chair:
DAVID A. GARCIA, MD, University of Washington, Seattle, WA

Speakers:
ERIN D. MICHOS, MD, MHS, Johns Hopkins University School of Medicine, Baltimore, MD
Does ASA Still Have a Role as Primary Prevention for Acute Coronary Syndrome

GEOFFREY D. BARNES, MD, MSc, University of Michigan, Ann Arbor, MI
Combining Antiplatelet and Anticoagulant Therapy in Cardiovascular Disease

DAVID A. GARCIA, MD, University of Washington, Seattle, WA
ASA to Treat or Prevent VENOUS Thrombosis: Is There a Role in 2020?
EDUCATION SESSIONS

5–7 Dec 2020

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Presentations available on demand prior to live Q&A. ☑ of interest to PhD attendees. ☐ CME credit is not offered.

Monday

**Educatio**n Sessions

**Speakers:**
- **Roshini Sarah Abraham,** PhD, Nationwide Children’s Hospital, Columbus, OH
  *How to Evaluate for Immunodeficiency in Patients with Cytopenias*
- **Markus G. Seidel,** MD, Medical University of Graz, University Clinics of Pediatrics and Adolescent Medicine, Graz, Austria
  *Treatment of Immune-Mediated Cytopenias in Adults with PIDs*
- **Emma C. Morris,** University College London, Royal Free London Hospital, London, United Kingdom
  *Allogeneic hematopoietic stem cell transplantation in adults with primary immunodeficiency*

**Aggressive Lymphomas: What Novel Approaches Are Ready for Prime Time? - Live Q&A**

Monday 11:30 a.m. – 12:15 p.m.

**Chair:**
**Jennifer E. Amengual,** MD, Columbia University, New York, NY

**Speakers:**
- **Michael R. Green,** PhD, University of Texas MD Anderson Cancer Center, Houston, TX
  *Epigenetics of Lymphomas*
- **Jennifer E. Amengual,** MD, Columbia University, New York, NY
  *Can We Use Epigenetics to Prime Chemoresistant Lymphomas?*
- **Kami J. Maddocks,** MD, Ohio State University Hospital, Columbus, OH
  *Novel Targets in Aggressive Lymphomas*

**Chronic Transfusion Support: Challenging Cases - Live Q&A**

Monday 11:30 a.m. – 12:15 p.m.

**Chair:**
**Jennifer Webb,** MD, Children’s National Health System, Washington, DC

**Speakers:**
- **Ashutosh Lal,** MD, Children’s Hospital & Research Center Oakland, Oakland, CA
  *Chronic Transfusion for Patients with Hemoglobinopathies*

**Pediatric Hematological Malignancies: CARs for Kids - Live Q&A**

Monday 11:30 a.m. – 12:15 p.m.

**Chair:**
**Rayne H. Rouce,** MD, Texas Children’s Hospital, Houston, TX

**Speakers:**
- **Shannon L. Maude,** MD, PhD, Children’s Hospital of Philadelphia, Philadelphia, PA
  *CAR-T Cells vs. Allogeneic HSCT for Poor Risk ALL*

**ERIC M. Wood,** MBBS, FRACP, FRCPA, Monash University, Melbourne, Victoria, Australia
*Outpatient Transfusions for Myelodysplastic Syndrome*

**Jennifer Webb,** MD, Children’s National Health System, Washington, DC
*The Social Aspects of a Chronic Transfusion Program*

**Junior Faculty Career Development Education Session - Live Q&A**

Monday 11:30 a.m. – 12:15 p.m.

**Chair:**
**Leslie Ellis,** MD, MSHPED, Wake Forest University School of Medicine, Winston Salem, NC

**Speakers:**
- **Martina C. Murphy,** MD, University of Florida, Gainesville, FL
  *Leading Yourself*
- **Marvin T. Nieman,** PhD, Case Western Reserve University, Cleveland, OH
  *Leading Yourself*
- **Ruth Gotian,** EdD, MS, Weill Cornell Medicine, New York, NY
  *Leading Others*
- **Alison W. Loren,** MD, Perelman Center for Advanced Medicine, Philadelphia, PA
  *Leading Others*
- **Ruben Mesa,** MD, UT Health San Antonio Cancer Center, San Antonio, TX
  *Leading Organizations*
- **Linda J. Burns,** MD, Center for International Blood and Marrow Transplant Research, Milwaukee, WI
  *Leading Organizations*
RAYNE H. ROUCE, MD, Texas Children’s Hospital, Houston, TX
CAR-T Cells for Mature B Cell Lymphoma and Burkitt Lymphoma

REBECCA A. GARDNER, MD, Seattle Children’s Hospital, Seattle, WA
CAR-T Cells for Other Pediatric Hematological Malignancies Including AML

Genetic Testing for Heritable Hematologic Disorders 101 - Live Q&A

Monday 1:30 p.m. – 2:15 p.m.

Chair:
Lucy A. Godley, University of Chicago Medical Center, Chicago, IL

Speakers:
David Wu, MD, PhD, University of Washington, Seattle, WA
Next Generation Sequencing and Variant Interpretation for Germline Hematologic Disorders for the Practicing Provider

Lucy A. Godley, University of Chicago Medical Center, Chicago, IL
Somatic Mutation Panels: Recognizing Germline Findings in Tumor Testing

Jonathan M. Marron, MD, MPH, Boston Children’s Hospital/Dana-Farber Cancer Institute, Harvard Medical School, Boston, MA
Informed Consent for Genetic Testing in Hematology

Out of Balance: Anemias Due to Disordered Iron Homeostasis - Live Q&A

Monday 1:30 p.m. – 2:15 p.m.

Chair:
Maria Domenica Cappellini, Foundation IRCCS Ca’ Granda Policlinico Milano–University of Milan, Milan, Italy

Speakers:
Kleber Yotsumoto Fertrin, MD, PhD, University of Washington, Seattle, WA
Iron Deficiency Across Chronic Inflammatory Conditions

Maria Domenica Cappellini, Foundation IRCCS Ca’ Granda Policlinico Milano–University of Milan, Milan, Italy
Congenital Microcytic Anemias and Their Treatments

Michael Bruce Zimmermann, MD, ETH Zurich, Zurich, Switzerland
Global Look at Nutritional and Functional Iron Deficiency
EDUCATION SPOTLIGHT SESSIONS

Education Spotlight Sessions are intended to provide an in-depth review on specific scientific topics. Speakers will discuss current challenges and controversies in two exciting topics, addressing the current state of knowledge, translational and clinical applications, and future directions.

Attendees are encouraged to view the pre-recorded presentations prior to the Live Q&A session.

NEW THIS YEAR: All Education Spotlight Session presentations are pre-recorded and can be viewed Tuesday, December 2 (designated with ). Live question-and-answer sessions to accompany each session will be held Saturday, December 5, and Monday, December 7, at the times below. The Live Q&A sessions will consist of a brief summary of the full-length presentations followed by live interactions with the presenters.

All times are in Pacific time. Duplication/recording is prohibited.

SATURDAY

Appropriate Use of Imaging in Patients with Lymphoma - Live Q&A

Saturday 12:00 p.m. – 12:45 p.m.

Chair:
JUDITH TROTMAN, FRACP, Concord Hospital, Concord, Australia

Speakers:
JUDITH TROTMAN, FRACP, Concord Hospital, Concord, Australia

ANDREA GALLAMINI, MD, Azienda Ospedaliera S. Croce e Carle, Cuneo, Italy

Emicizumab’s Impact on the Landscape of Hemophilia A Treatment: Two Artists Debate the View - Live Q&A

Saturday 12:00 p.m. – 12:45 p.m.

Chair:
STACY E. CRETEAU, MD, Boston Children’s Hospital, Boston, MA

Speakers:
GUY YOUNG, MD, Children’s Hospital Los Angeles, Los Angeles, CA
ROBERT F. SIDonio JR., MD, MSc, Emory University, Atlanta, GA
### MONDAY

#### Vascular Anomalies 101: Case-Based Discussion on the Diagnosis, Treatment and Lifelong Care of These Patients - Live Q&A

**Monday 7:00 a.m. – 7:45 a.m.**

**Chair:** Francis Blei, MD, Northwell Health, New York, NY

**Speakers:**
- Denise M. Adams, MD, Children’s Hospital of Philadelphia, Philadelphia, PA
- Mikka Vikkula, MD, PhD, Universite Catholique De Louvain, Brussels, Belgium

*Case #1. Thrombosis Painful Event in a Venous Malformation*

*Case #2. Multifocal Bone Lesions and Profound Lymphopenia That Is Not Langerhans Histiocytosis*

#### How to Manage Common Challenging Situations in Patients with Multiple Myeloma - Live Q&A

**Monday 9:00 a.m. – 9:45 a.m.**

**Chair:** Francesca Gay, MD, GIMEMA, Torino, Torino, Italy

**Speakers:**
- Francesca Gay, MD, GIMEMA, Torino, Torino, Italy
- Laura Rosinol, MD, PhD, Hospital Clinic i Provincial, Barcelona, Spain

*Management of Multiple Myeloma for Patients with Renal Failure*

*Difficult Conditions to Manage: Plasma Cell Leukemia, Extramedullary Disease, CNS Involvement*

#### Transfusion and Anemia in Global Health - Live Q&A

**Monday 9:00 a.m. – 9:45 a.m.**

**Chair:** Meghan Delaney, DO, Children’s National Medical Center, Washington, DC

**Speakers:**
- Kathryn Maitland, Imperial College London, London, United Kingdom, and KEMRI/Wellcome Programme, Kilifi, Kenya
- Christina Fitzmaurice, MD MPH, Fred Hutchinson Cancer Research Center, Seattle, WA

*Pediatric Anemia in Africa: Evidence-Based Approach to Transfusion*

*The Unmet Global Need for Blood Transfusion*
ASH® Clinical Practice Guidelines

Stay up to date with these evidence-based guidelines covering the prevention, diagnosis, and treatment of blood disorders.

ASH Clinical Practice Guidelines are developed by leading clinical, methodological, and patient experts through a rigorous process of reviewing evidence and writing actionable recommendations. Our use of state-of-the-art GRADE methodology ensures that the guidelines meet the highest standards for trustworthiness and transparency. The guidelines, published in Blood Advances, provide extensive details about the quality of evidence that was evaluated for each recommendation.

Sickle Cell Disease (SCD)
Venous Thromboembolism (VTE)
Immune Thrombocytopenia (ITP)
Von Willebrand Disease (VWD)
Acute Myeloid Leukemia (AML)

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- Myeloma
- Red Cell Disorders
- Thrombosis and Hemostasis
- Transplantation

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NEW THIS YEAR: All Scientific Committee Sessions presentations are pre-recorded and can be viewed beginning Tuesday, December 2 (designated with 🎥). Live question-and-answer sessions to accompany each session will held from Saturday, December 5, through Monday, December 7 at the times below. The Live Q&A sessions will consist of a brief summary of the full-length presentations followed by live interactions with the presenters.

Attendees are encouraged to view the pre-recorded presentations prior to the Live Q&A session.

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SATURDAY

Scientific Committee on Stem Cells and Regenerative Medicine

Extrinsic Regulation of Hematopoietic Stem Cell Emergence and Homeostasis - Live Q&A

Saturday 7:30 a.m. – 8:15 a.m.

Chair:
Suneet Agarwal, MD, PhD, Boston Children’s Hospital, Dana-Farber Cancer Institute, Harvard Stem Cell Institute, Harvard Medical School, Boston, MA

Speakers:
Trista E. North, PhD, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA
Extrinsic Factors Governing Hematopoietic Stem Cell Development

John P. Chute, MD, University of California–Los Angeles, Los Angeles, CA
Regenerative Niche-Hematopoietic Stem Cell Interactions

Laura M. Calvi, MD, University of Rochester School of Medicine, Rochester, NY
Role of the Niche in Hematopoietic Stem Cell Aging

Scientific Committee on Transplantation Biology and Cellular Therapies

Challenges in Cell Therapy: Relapse and Toxicities - Live Q&A

Saturday 9:30 a.m. – 10:15 a.m.

Chair:
Catherine Wu, MD, Dana-Farber Cancer Institute, Boston, MA

Speakers:
John F. DiPersio, MD, PhD, Washington University School of Medicine, Saint Louis, MO
Addressing Relapsed Disease Following Hematopoietic Stem Cell Transplantation

Aude G. Chapuis, MD, Fred Hutchinson Cancer Research Center, Seattle, WA
Addressing Relapsed Disease Following Cellular Therapy

Chiara Bonini, MD, Ospedale San Raffaele, Milan, Italy
Addressing Toxicities Following Cellular Therapy

Presentations available on demand prior to live Q&A.

CME credit is not offered.
**Scientific Committee on Transfusion Medicine**

**Novel Blood Therapeutics - Live Q&A**
Saturday 9:30 a.m. – 10:15 a.m.

**Co-Chairs:**
Simone Glynn, MD, MPH, National Heart, Lung, and Blood Institute, National Institutes of Health, Bethesda, MD
Stella Chou, MD, Children’s Hospital of Philadelphia, Philadelphia, PA

**Speakers:**
Vladimir Muzykantov, PhD, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA
Drug Delivery by Red Cells

Hidde L. Ploegh, PhD, Boston Children’s Hospital, Boston, MA
Immune Tolerance by Red Cells

Leticia Hosta-Riga, PhD, Technical University of Denmark, Kongens Lyngby, Hovedstaden, Denmark
Synthetic Red Cells

**Joint Session: Scientific Committee on Myeloid Biology & Scientific Committee on Myeloid Neoplasia**

**Single Cell Analysis of Hematopoietic Development and Clonal Complexity of Malignant Hematopoiesis - Live Q&A**
Saturday 9:30 a.m. – 10:15 a.m.

**Co-Chairs:**
Soheil Meshinchi, MD, PhD, Fred Hutchinson Cancer Research Center, Seattle, WA
Sandra Zinkel, MD, PhD, Vanderbilt University School of Medicine, Nashville, TN

**Speakers:**
Vijay G. Sankaran, MD, PhD, Boston Children’s Hospital, Boston, MA
Single Cell Understanding of Hematopoiesis and Myeloid Lineage Commitment

Tim Schroeder, PhD, ETH Zurich, Basel, Switzerland
Single Cell Analysis of the Bone Marrow Niche - Quantitative Understanding of Stem/Progenitor Niche Interactions

Margaret Goodell, PhD, Center for Cell and Gene Therapy, Baylor College of Medicine, Houston, TX
Subclonal Complexity in Myeloid Malignancies and Mechanism of Selection and Resistance

Konstanze Döhner, MD, University Hospital of Ulm, Ulm, Germany
Measuring Disease Burden in Myeloid Malignancies/Residual Disease

**Scientific Committee on Epigenetics and Genomics**

**RNA in Normal and Malignant Hematopoiesis - Live Q&A**
Saturday 12:00 p.m. – 12:45 p.m.

**Chair:**
Kathrin Bernt, MD, Children’s Hospital of Philadelphia, Philadelphia, PA

**Speakers:**
Chris B. Burge, MD, PhD, Massachusetts Institute of Technology, Cambridge, MA
Basic Mechanisms and Significance of Altered Splicing in Cancer and Hematology

Omar Abdel-Wahab, MD, Memorial Sloan Kettering Cancer Center, New York, NY
Understanding and Targeting Spliceosomal Gene Mutations in Leukemia

Kristin Hope, PhD, McMaster University, Hamilton, Ontario, Canada
RNA Processing in Benign and/or Malignant Hematology
SUNDAY

Scientific Committee on Red Cell Biology

Location, Location, Location - Live Q&A

Sunday 9:30 a.m. – 10:15 a.m.

Chair:
Miguel Abboud, MD, American University of Beirut, Beirut, Lebanon

Speakers:
Ke Xu, PhD, University of California–Berkeley, Berkeley, CA
Phase Resolution in Erythropoiesis

Johan Flygare, MD, PhD, Lund University, Lund, Sweden
Molecules Involved in the Generation of Definitive Hematopoiesis

Velia M. Fowler, PhD, University of Delaware, Newark, DE
Cytoskeletal Control of Erythroid Properties and Enucleation

Joint Session: Scientific Committee on Blood Disorders in Childhood & Scientific Committee on Immunology and Host Defense

What the Children Can Teach Us: Congenital Immunodeficiencies Shed Light on Immunity, Hematopoiesis, and Cancer - Live Q&A

Sunday 12:00 p.m. – 12:45 p.m.

Co-Chairs:
Robert Sidonio Jr., MD, MSc, Children’s Hospital of Atlanta, Atlanta, GA
Sung-Yun Pai, MD, Boston Children’s Hospital, Boston, MA

Speakers:
Carrie L. Lucas, PhD, Yale, New Haven, CT
Human PI3K Mutations: Immunodeficiency and Malignancy

Andrew L. Snow, PhD, Uniformed Services University, Bethesda, MD
The Biology of CARMA Proteins in Immunity and Malignancy

Sylvain Latour, PhD, Institut IMAGINE, Hôpital Necker, Paris, France
The Complete Spectrum of IKZF1 Defects: Immunodeficiency, Immune Dysregulation, Abnormal Hematopoiesis and Leukemia

Steven M. Holland, MD, Laboratory of Clinical Infectious Diseases, National Institutes of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD
GATA2: MonoMac and Beyond

Joint Session: Scientific Committee on Hematopathology and Clinical Laboratory Hematology & Scientific Committee on Lymphoid Neoplasia

Getting the Most from Minimal Residual Disease - Live Q&A

Sunday 2:00 p.m. – 2:45 p.m.

Co-Chairs:
Eric Hsi, MD, Cleveland Clinic, Cleveland Clinic Foundation, Cleveland, OH
Lisa Roth, MD, Weill Cornell Medical College, New York, NY

Speakers:
David Rossi, MD, PhD, Amedeo Avogadro University of Eastern Piedmont, Bellinzona, Italy
Use of Minimal Residual Disease and Advances in Clinical Trials

Katie Thoren, PhD, Memorial Sloan Kettering Cancer Center, New York, NY
Advances in Mass Spectrometry for Myeloma Minimal Residual Disease

Ash A. Alizadeh, MD, PhD, Stanford University, Stanford, CA
Newest Discoveries Using Next Generation Sequencing Approaches for Minimal Residual Disease

Scott R. Manalis, PhD, Massachusetts Institute of Technology, Cambridge, MA
Bioengineering Strategies to Phenotypically Define Minimal Residual Disease
Scientific Committee on Megakaryocytes and Platelets

Molecular Basis of Platelet/Megakaryocyte Dysfunction: Novel Approaches - Live Q&A

Sunday 2:00 p.m. – 2:45 p.m.

Chair:
ANGARA KONETI RAO, MBBS, Temple University, Philadelphia, PA

Speakers:
Bethan Psaila, MD, PhD, MRC Molecular Haematology Unit, University of Oxford, Oxford, United Kingdom
Single Cell Approaches to Elucidate Novel and Aberrant Pathways in Megakaryocytes

Mortimer Poncz, MD, Children’s Hospital of Philadelphia, Philadelphia, PA
Exploiting Induced Pluripotent Stem Cells to Unravel Mechanisms in Inherited Platelet/Megakaryocyte Disorders

Kathleen Freson, PhD, University of Leuven, Leuven, Belgium
Insights into Platelet-Megakaryocyte Biology through Next-Generation Sequencing

MONDAY

Scientific Committee on Thrombosis and Vascular Biology

Gut Microbiome and the Endothelium - Live Q&A

Monday 9:00 a.m. – 9:45 a.m.

Chair:
Wolfram Ruf, MD, Johannes Gutenberg University Medical Center, Mainz, Germany

Speakers:
Martin Krieger, MD, PhD, Yale School of Medicine, New Haven, CT
Microbiota and Thrombosis

Mark L. Kahn, MD, University of Pennsylvania, Philadelphia, PA
Microbiome Regulation of Toll-Like Receptor Signaling and Vascular Malformation

Weifei Zhu, PhD, Cleveland Clinic Foundation, Cleveland, OH
Microbiome-Derived Metabolites Affecting Vascular Function

Scientific Committee on Hematopoiesis

Hematopoietic Aging: Mechanisms and Consequences - Live Q&A

Monday 9:00 a.m. – 9:45 a.m.

Chair:
Jose Cancelas, MD, University of Cincinnati, Cincinnati, OH

Speakers:
Danica Chen, PhD, University of California–Berkley, Berkeley, CA
Hematopoietic Stem Cell Aging and its Impact on Lifespan

Maria Carolina Florian, PhD, Institute of Molecular Medicine, Ulm University, Barcelona, Spain
Aging of the Stem Cell Niche

Hartmut Geiger, PhD, Cincinnati Children’s Hospital Medical Center, Cincinnati, OH
Hematopoietic Aging on Hematopoietic Stem Cell Activity
Scientific Committee Sessions

**Mechanisms and Modifiers of Bleeding - Live Q&A**

**Monday**  9:00 a.m. – 9:45 a.m.

**Chair:** Shannon Meeks, MD, Emory University, Atlanta, GA

**Speakers:**
- Mitchell J. Cohen, MD, Denver Health Medical Center/University of Colorado, Denver, CO
- Valerie O'Donnell, PhD, Cardiff University, Cardiff, United Kingdom
- Karin Leiderman, PhD, Colorado School of Mines, Golden, CO
- A Systems Biology Approach to Identifying Modifiers of Bleeding in Hemophilia

**Scientific Committee on Plasma Cell Neoplasia**

**Monday**  11:30 a.m. – 12:15 p.m.

**Chair:** Saad Usmani, MD, MBBS, MBA, Levine Cancer Institute, Charlotte, NC

**Speakers:**
- Mark J. Smyth, PhD, FAA, QIMR Berghofer Medical Research Institute, Herston, Brisbane, Australia
- Paula Neri, MD, University of Calgary, Calgary, Alberta, Canada
- Madhav V. Dhodapkar, MBBS, Emory University, Atlanta, GA

**Scientific Committee on Bone Marrow Failure**

**Precision Medicine Approaches to Leukemia Predisposition in Bone Marrow Failure - Live Q&A**

**Monday**  11:30 a.m. – 12:15 p.m.

**Chair:** Akiko Shiamura, MD, PhD, Boston Children’s Hospital, Boston, MA

**Speakers:**
- H. Leighton Grimes, PhD, Cincinnati Children’s Hospital Medical Center, Cincinnati, OH
- R. Coleman Lindsay, MD, PhD, Dana-Farber Cancer Institute, Boston, MA
- Paula Rio, PhD, CIEMAT/CIBERER/IIS-Fundación Jiménez Díaz, Universidad Autónoma de Madrid, Madrid, Spain
- Clonal Tracking Post-Gene Therapy for Fanconi Anemia

**Scientific Committee on Iron and Heme**

**Well-Regulated vs Malfunctioning Mechanisms of Iron Metabolism - Live Q&A**

**Monday**  11:30 a.m. – 12:15 p.m.

**Chair:** Matthew Heeney, MD, Boston Children’s Hospital, Boston, MA

**Speakers:**
- Yatrik Shah, PhD, University of Michigan, Ann Arbor, MI
- Francesca Vinchi, PhD, New York Blood Center, New York, NY
- Norbert Gattermann, MD, Heinrich-Heine-Universität, Düsseldorf, Germany
- Prognostic Impact of Iron Overload and Iron Chelation in Myelodysplastic Syndromes
blood advances® Invites You to Attend: How to Peer Review a Scientific Paper

Chair:
Robert S. Negrin, MD
Editor-In-Chief, Blood Advances
Stanford University Medical Center, Stanford, CA

Margaret V. Ragni, MD,MPH
University of Pittsburgh
Pittsburgh, PA

Constantine S. Tam, MBBS
Peter MacCallum Cancer Center, Royal Melbourne Hospital, and University of Melbourne Melbourne, VIC, Australia

The Blood Advances Editor-in-Chief, Dr. Robert Negrin, will lead a panel discussion on How to Peer Review a Scientific Paper. The session will provide valuable information on the best practices of peer review from the editorial perspective for both basic and clinically relevant manuscripts. There are multiple professional benefits to becoming a reviewer. It allows the hematologist to stay current on research and developments in the field and can help in patient care, in the lab, and in the classroom. It also has the additional benefits of allowing the reviewer to be recognized by their colleagues, and the reviewer can use the experience to demonstrate professional development with their institution.

Early Access Beginning on Wednesday, December 2*

* This session is part of the ASH Annual Meeting program and requires a meeting subscription to access this session.
SPECIAL SCIENTIFIC SYMPOSIA

Special Scientific Symposia feature transformative research with implications for scientific investigation and clinical practice across the field of hematology.

NEW THIS YEAR: All Special Scientific Symposia presentations are pre-recorded and can be viewed beginning Tuesday, December 2 (designated with 🎥). Live question-and-answer sessions to accompany each session will be held Sunday, December 6, and Monday, December 7 at the times below. The Live Q&A sessions will consist of a brief summary of the full-length presentations followed by live interactions with the presenters.

**SUNDAY**

**Friend or Foe: The Microbiome, Antibiotics and Death After Transplant - Live Q&A**

- **Sunday** 9:30 a.m. – 10:15 a.m.
- **Chair:** Marcel R.M. van den Brink, MD, PhD, Memorial Sloan Kettering Cancer Center, New York, NY
- **Speakers:**
  - Ami S. Bhatt, MD, PhD, Stanford University, Stanford, CA
  - Marcel R.M. van den Brink, MD, PhD, Memorial Sloan Kettering Cancer Center, New York, NY
  - M. D. Hazenberg, MD, PhD, Amsterdam UMC, Amsterdam, Netherlands
  - Fecal Microbiota Transplants

**Special Joint Education-Scientific Symposium: Hormones and Hematology - Live Q&A**

- **Sunday** 2:00 p.m. – 2:45 p.m.
- **Chair:** Lydia H. Pecker, MD, Johns Hopkins University, Baltimore, MD
- **Speakers:**
  - Jean M. Connors, MD, Brigham & Women’s Hospital/Dana-Farber Cancer Institute, Boston, MA
  - E. Dale Abel, MD, PhD, University of Iowa, Iowa City, IA
  - Robert Richard, MD, PhD, University of Washington, Seattle, WA
  - OPA1 A Novel Regulator of Sex-Dependent Differences in Thrombosis
  - Steroids and Erythropoiesis: We’re Going to Pump You Up

**MONDAY**

**Special Symposium on the Basic Science of Hemostasis and Thrombosis - Live Q&A**

- **Monday** 1:30 p.m. – 2:15 p.m.
- **Co-Chairs:** Shannon L. Meeks, MD, Emory University, Atlanta, GA
  - Wolfram Ruf, MD, The Scripps Research Institute, La Jolla, CA, and Johannes Gutenberg University Medical Center, Mainz, Germany
  - Angara Koneti Rao, MBBS, Lewis Katz School of Medicine, Temple University, Philadelphia, PA

**Speakers:**
- Rafal Pawlinski, PhD, University of North Carolina, Chapel Hill, NC
  - Hemostasis: Coagulation and Inflammation
- Mark H. Ginsberg, MD, University of California—San Diego, La Jolla, CA
  - Thrombosis/Vascular Biology: Cavernous Malformations and Thrombosis
- Gowthami M. Arepally, MD, Duke University Medical Center, Durham, NC
  - Complement Activation in Heparin Induced Thrombocytopenia
Scientific Spotlight Sessions are intended to provide an in-depth review on specific scientific topics. Speakers will discuss current challenges and controversies in two exciting topics, addressing the current state of knowledge, translational and clinical applications, and future directions.

NEW THIS YEAR: All Scientific Spotlight Session presentations are pre-recorded and can be viewed beginning Tuesday, December 2 (designated with 🎬). Live question-and-answer sessions to accompany each session will be held Sunday, December 6 at the times below. The Live Q&A sessions will consist of a brief summary of the full-length presentations followed by live interactions with the presenters.

Attendees are encouraged to view the pre-recorded presentations prior to the Live Q&A session.

**SUNDAY**

**Cellular Breakups: Transfusion and Hyperhemolysis in Sickle Cell Disease - Live Q&A 🎬**

**Chair:**
KARINA YAZDANBAKHSH, PhD, New York Blood Center, New York, NY

**Speakers:**
LUBKA T. ROUMENINA, PhD, Centre De Recherche Des Cordeliers, Paris, France
Pathophysiology of Sickle Cell Disease: Complement in Bystander Hemolysis

KARINA YAZDANBAKHSH, PhD, New York Blood Center, New York, NY
Pathophysiology of Sickle Cell Disease: Role of Hemolysis

Sunday 12:00 p.m. – 12:45 p.m.

**Checkpoint Blockade: Defining A New Treatment Paradigm in Hodgkin Lymphoma and Allogeneic Transplantation - Live Q&A 🎬**

**Chair:**
LESLIE KEAN, MD, PhD, Boston Children’s Hospital, Boston, MA

**Speakers:**
MARGARET A. SHIPP, MD, Dana-Farber Cancer Institute, Boston, MA
It’s All In The Genes: What Hodgkin Lymphoma Teaches Us About Checkpoint Blockade

MIGUEL-ANGEL PERALES, MD, Memorial Sloan Kettering Cancer Center, New York, NY
Why Allo-Transplant Still Matters For Hodgkin Lymphoma In The Era Of Checkpoint Blockade

Sunday 12:00 p.m. – 12:45 p.m.
The Scientific Workshops @ ASH are interactive discussions of the latest science developments in a particular field of hematology. These three-hour workshops will be held Wednesday, December 2, through Friday, December 4.

Scientific Workshops @ ASH are not offered for CME Credit.

All times are in Pacific time. Duplication/recording is prohibited.

WEDNESDAY, DEC 2

Infectious Disease and Coagulation

**Wednesday, Dec 2 7:00 a.m. – 10:00 a.m.**

**Co-Chairs:**
- Amanda B. Payne, PhD, MPH, Centers for Disease Control and Prevention, Atlanta, GA
- Robert F. Sidonio Jr., MD, MSc, Emory University, Altana, GA
- Shannon L. Meeks, MD, Emory University, Atlanta, GA
- William C. Hooper, PhD, Centers for Disease Control and Prevention, Atlanta, GA

7:00 a.m. – 7:05 a.m. Opening Remarks
7:05 a.m. – 8:30 a.m. The Immunohemostatic Response to Infection
8:35 a.m. – 9:35 a.m. Prevention and Monitoring
9:35 a.m. – 9:50 a.m. Full Panel Discussion
9:50 a.m. – 10:00 a.m. Closing Remarks

Myeloid Development

**Wednesday, Dec 2 7:00 a.m. – 10:00 a.m.**

**Co-Chairs:**
- Ross Levine, MD, Memorial Sloan Kettering Cancer Center, New York, NY
- Patricia Ernst, PhD, University of Colorado, Aurora, CO

7:00 a.m. – 7:05 a.m. Opening Remarks
7:05 a.m. – 8:20 a.m. Immune Engaging Molecules in the management of Lymphoid Malignancies
8:20 a.m. – 9:55 a.m. Engineered Immune Cells in the management of Lymphoid Malignancies
9:55 a.m. – 10:00 a.m. Closing Remarks

Tumor Immune Interactions in Lymphoid Malignancies

**Wednesday, Dec 2 7:00 a.m. – 10:00 a.m.**

**Co-Chairs:**
- Stephen M. Ansell, MD, PhD, Mayo Clinic, Rochester, MN
- Ronald Levy, MD, Stanford University School of Medicine, Stanford, CA

7:00 a.m. – 7:05 a.m. Opening Remarks
7:05 a.m. – 8:20 a.m. Immune Engaging Molecules in the management of Lymphoid Malignancies
8:20 a.m. – 9:55 a.m. Engineered Immune Cells in the management of Lymphoid Malignancies
9:55 a.m. – 10:00 a.m. Closing Remarks
### THURSDAY, DEC 3

#### Immune Profiling and Minimal Residual Disease Testing in Multiple Myeloma

**Co-Chairs:**
- **Philip L. McCarthy, MD**, Roswell Park Cancer Institute, Buffalo, NY
- **Saad Z. Usmani, MD, MBBS, MBA**, Levine Cancer Institute, Charlotte, NC

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<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>7:00 a.m. – 7:02 a.m.</td>
<td>Opening Remarks</td>
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<tr>
<td>7:02 a.m. – 7:42 a.m.</td>
<td>Integrating MRD into Clinical Trial Design and Clinical Practice</td>
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<tr>
<td>7:42 a.m. – 8:22 a.m.</td>
<td>The Molecular and Immunobiology of Disease Evolution and Progression in Multiple Myeloma</td>
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<tr>
<td>8:32 a.m. – 9:12 a.m.</td>
<td>Adaptation of Next Generation Sequencing, Next Generation Flow Cytometry, and CyTOF: Diverse Ways of Detection</td>
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<tr>
<td>9:12 a.m. – 9:57 a.m.</td>
<td>CAR-T and Other Cellular Therapy for Multiple Myeloma</td>
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<td>9:57 a.m. – 10:00 a.m.</td>
<td>Closing Remarks</td>
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#### Epidemiology: Disparities in Hematologic Diseases: Risk, Outcomes and Care

**Co-Chairs:**
- **Wendy Cozen, DO, MPH**, University of Southern California Norris Cancer Center, Los Angeles, CA
- **James M. Foran, MD**, Mayo Clinic Florida, Jacksonville, FL
- **James R. Cerhan, MD, PhD**, Mayo Clinic, Rochester, MN
- **Neil A. Zakai, MD, MSc**, Fletcher Allen Health Care, University of Vermont, Burlington, VT

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<th>Time</th>
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<tr>
<td>2:00 p.m. – 2:05 p.m.</td>
<td>Opening Remarks</td>
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<tr>
<td>2:05 p.m. – 3:30 p.m.</td>
<td>Disparities in Malignant Hematology</td>
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<td>3:30 p.m. – 4:30 p.m.</td>
<td>Disparities in Benign Hematology</td>
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<td>4:30 p.m. – 4:45 p.m.</td>
<td>Disparities in COVID-19-related hematology</td>
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<td>4:55 p.m. – 5:00 p.m.</td>
<td>Closing Remarks</td>
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#### Interplay between Coagulation and Malignancy

**Co-Chairs:**
- **Lisa B. Kreuziger, MD, MS**, Blood Research Institute, Versiti, Milwaukee, WI
- **Jeffrey I. Zwicker, MD**, Beth Israel Deaconess Medical Center Harvard Medical School, Boston, MA

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<th>Time</th>
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<tr>
<td>7:00 a.m. – 7:05 a.m.</td>
<td>Opening Remarks</td>
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<tr>
<td>7:05 a.m. – 7:29 a.m.</td>
<td>MicroRNA and role in cancer associated thrombosis</td>
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<tr>
<td>7:29 a.m. – 8:17 a.m.</td>
<td>Interplay between the hematologic system and solid tumor progression</td>
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<tr>
<td>8:17 a.m. – 8:55 a.m.</td>
<td>Modeling predictors and outcomes in myeloproliferative neoplasms and thrombosis</td>
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<tr>
<td>8:55 a.m. – 9:56 a.m.</td>
<td>Late-Breaking Research Presentations</td>
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<td>9:56 a.m. – 10:00 a.m.</td>
<td>Closing Remarks</td>
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#### Hematology & Aging: Exploring Biomarkers, CHIP, CAR-T and Clotting

**Co-Chairs:**
- **Andrew S. Artz, MD**, University of Chicago, Chicago, IL
- **Ashley Rosko, MD**, The Ohio State University, Columbus, OH

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<tr>
<td>2:00 p.m. – 2:02 p.m.</td>
<td>Opening Remarks</td>
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<tr>
<td>2:02 p.m. – 2:45 p.m.</td>
<td>Thrombosis + Aging</td>
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<tr>
<td>2:45 p.m. – 3:22 p.m.</td>
<td>CAR-T</td>
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<tr>
<td>3:22 p.m. – 4:05 p.m.</td>
<td>Biomarkers of Aging</td>
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<tr>
<td>4:05 p.m. – 4:58 p.m.</td>
<td>CHIPing away at the Hematopoietic Stem Cell Niche</td>
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<tr>
<td>4:58 p.m. – 5:00 p.m.</td>
<td>Closing Remarks</td>
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### Translational Molecular Diagnostics in Hematology

**Co-Chairs:**
- **Piers Blombery, MBBS,** University of Melbourne, East Melbourne, Australia
- **Torsten Haferlach, MD,** MLL Munchner Leukamie Labor Gmbh, Munchen, Germany

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<tr>
<th>Thursday, Dec 3</th>
<th>2:00 p.m. – 5:00 p.m.</th>
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<tr>
<td>2:00 p.m. – 2:05 p.m.</td>
<td>Opening Remarks</td>
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<tr>
<td>2:05 p.m. – 2:45 p.m.</td>
<td>Overcoming Challenges in Delivering Diagnostic Genomics in Hematology</td>
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<tr>
<td>2:45 p.m. – 3:24 p.m.</td>
<td>Novel Diagnostic Genomic Tools and Technologies</td>
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<td>3:24 p.m. – 4:19 p.m.</td>
<td>Variant Curation: How Should We Interpret What We Find?</td>
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<tr>
<td>4:19 p.m. – 4:59 p.m.</td>
<td>Molecular Tumour Board</td>
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<tr>
<td>4:59 p.m. – 5:00 p.m.</td>
<td>Closing Remarks</td>
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### Germline Predisposition to Hematopoietic Malignancies and Bone Marrow Failure

**Co-Chairs:**
- **Lucy A. Godley,** University of Chicago Medical Center, Chicago, IL
- **Marcin W. Wlodarski, MD, PhD,** St. Jude Children’s Research Hospital, Memphis, TN

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<tr>
<th>Friday, Dec 4</th>
<th>7:00 a.m. – 10:00 a.m.</th>
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<tr>
<td>7:00 a.m. – 7:05 a.m.</td>
<td>Opening Remarks</td>
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<tr>
<td>7:05 a.m. – 7:52 a.m.</td>
<td>Germline Predisposition Syndrome Modeling</td>
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<tr>
<td>7:52 a.m. – 8:32 a.m.</td>
<td>SAMD9/SAMD9L syndrome: clinical and biological aspects</td>
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<tr>
<td>8:32 a.m. – 9:05 a.m.</td>
<td>Socioeconomic considerations and quality of life issues in patients with germline predisposition</td>
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<tr>
<td>9:05 a.m. – 9:52 a.m.</td>
<td>New insights into germline predisposition</td>
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<td>9:52 a.m. – 10:00 a.m.</td>
<td>Closing Remarks</td>
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### Hematology and Pregnancy

**Co-Chairs:**
- **Irina Murakhovskaya, MD,** Albert Einstein College of Medicine, Bronx, NY
- **Henny H. Billett, MD,** Montefiore Medical Center, Albert Einstein College of Medicine, Bronx, NY
- **Shannon Bates, MDCM, MSc,** McMaster University, Hamilton, Ontario, Canada

**Moderator:**
- **Shannon Bates, MDCM, MSc,** McMaster University, Hamilton, Ontario, Canada

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<tr>
<th>Sunday, Dec 4</th>
<th>7:00 a.m. – 10:00 a.m.</th>
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<tr>
<td>7:00 a.m. – 7:05 a.m.</td>
<td>Opening Remarks</td>
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<tr>
<td>7:05 a.m. – 8:10 a.m.</td>
<td>‘Omics Approaches to Erythrocyte Biology in Sickle Cell Disease</td>
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<tr>
<td>8:15 a.m. – 9:05 a.m.</td>
<td>Exploring the ‘Omics of Cardiovascular and Renal Sequelae of SCD</td>
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<tr>
<td>9:10 a.m. – 9:55 a.m.</td>
<td>Mechanistic Insights into Neurological Disease and Pain</td>
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<td>9:55 a.m. – 10:00 a.m.</td>
<td>Closing Remarks</td>
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ASH POSTER WALKS

ASH Poster Walks as of November 2, 2020. Check the mobile app or the ASH Annual Meeting Website for a detailed list of posters that will be discussed.

The ASH Poster Walks are curated groups of poster presentations selected by ASH Committees, Task Forces, and volunteers, which focus on a specific disease state or scientific research topic. These sessions will provide an opportunity to view up to six pre-selected poster presentations accompanied by a moderated discussion with the authors and key opinion leaders in the field. These one-hour sessions will be held Wednesday, December 9, through Thursday, December 10.

ASH Poster Walks are not offered for CME credit.

All times are in Pacific time. Duplication/recording is prohibited.

WEDNESDAY, DEC 9

Current Challenges in Treating Hematologic Malignancies  
Wednesday, Dec 9 7:00 a.m. – 8:00 a.m.

Germline Predisposition to Hematopoietic Malignancies and Bone Marrow Failure  
Wednesday, Dec 9 7:00 a.m. – 8:00 a.m.

THURSDAY, DEC 10

Blood and Bone—From Hematopoiesis to Hemostasis  
Thursday, Dec 10 7:00 a.m. – 8:00 a.m.

Clinical Trials in Progress  
Thursday, Dec 10 7:00 a.m. – 8:00 a.m.

Hematology and Aging  
Thursday, Dec 10 7:00 a.m. – 8:00 a.m.

Novel Diagnostics and Treatments for Sickle Cell Disease: A New Era  
Thursday, Dec 10 7:00 a.m. – 8:00 a.m.

Quality Improvement Poster Walk  
Thursday, Dec 10 7:00 a.m. – 8:00 a.m.

A Walk Down Immunotherapy Lane: Watch Out for the CARs  
Thursday, Dec 10 7:00 a.m. – 8:00 a.m.

Health Care Equity Matters  
Thursday, Dec 10 2:00 p.m. – 3:00 p.m.

Hemostasis & Thrombosis  
Thursday, Dec 10 2:00 p.m. – 3:00 p.m.
Enjoy Free Education at Your Fingertips!

Stream ASH’s FREE educational webinars presented by experts in the hematology field! Topics cover current information on how to best diagnose and care for patients, especially in the time of COVID-19, and provide insights into a variety of issues relevant to hematology.

Recent webinar topics:

- ASH Guidelines on the Use of Anticoagulation in Patients with COVID-19
- Advocacy 101
- Implicit Bias and Health Equity
- Curriculum Design
- COVID-19 and Thrombosis
- Systems-Based Hematology and Medical Education
- Technology and Large Group Teaching in Times of Distance Learning
- Administrative Roles in Medical Education
- The Use of Convalescent Plasma During COVID-19

Learn more at www.hematology.org/webinars.
ABSTRACT SESSIONS
Rooted in science and driven by data, we are transforming the future of antibody therapeutics

At Genmab, we believe in improving the lives of patients by creating innovative and differentiated antibody therapeutics. This relentless drive, our in-depth knowledge of antibody biology, and a passion for innovation has led us to develop four proprietary technologies, as well as 21 products in clinical development.

See how we’re engineering a transformative tomorrow at our booth or Genmab.com

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2020 SCIENTIFIC CATEGORIES

For the 2020 62nd ASH Annual Meeting, abstracts were submitted in 66 different scientific categories in 9 larger topics. For your ease in finding the oral and poster abstracts on topics of interest to you, the abstract program has been organized by category number.

Oral Sessions’ titles begin with the category number and name. They are listed in the Program at a Glance by date, time, and then by category number. The Virtual Poster Hall is arranged by category number.

100s—Red Cell Physiology and Disorders
101 Red Cells and Erythropoiesis, Structure and Function, Metabolism, and Survival, Excluding Iron
102 Regulation of Iron Metabolism
112 Thalassemia and Globin Gene Regulation
113 Hemoglobinopathies, Excluding Thalassemia—Basic and Translational Science
114 Hemoglobinopathies, Excluding Thalassemia—Clinical

200s—Leukocytes, Inflammation, and Immunology
201 Granulocytes, Monocytes, and Macrophages
203 Lymphocytes, Lymphocyte Activation, and Immunodeficiency, including HIV and Other Infections

300s—Hemostasis, Thrombosis, and Vascular Wall Biology
301 Vascular Wall Biology, Endothelial Progenitor Cells, and Platelet Adhesion, Activation, and Biochemistry
311 Disorders of Platelet Number or Function
321 Blood Coagulation and Fibrinolytic Factors
322 Disorders of Coagulation or Fibrinolysis
331 Pathophysiology of Thrombosis
332 Anticoagulation and Antithrombotic Therapy

400s—Transfusion Medicine
401 Basic Science and Clinical Practice in Blood Transfusion

500s—Hematopoiesis
501 Hematopoietic Stem and Progenitor Biology
502 Hematopoiesis: Regulation of Gene Transcription, Cytokines, Signal Transduction, Apoptosis, and Cell Cycle Regulation
503 Clonal Hematopoiesis: Aging and Inflammation
506 Hematopoiesis and Stem Cells: Microenvironment, Cell Adhesion, and Stromal Stem Cells
508 Bone Marrow Failure

600s—Hematologic Malignancy
602 Disordered Gene Expression in Hematologic Malignancy, including Disordered Epigenetic Regulation
603 Oncogenes and Tumor Suppressors
604 Molecular Pharmacology and Drug Resistance in Myeloid Diseases
605 Molecular Pharmacology, Drug Resistance—Lymphoid and Other Diseases
612 Acute Lymphoblastic Leukemia: Clinical Studies
613 Acute Myeloid Leukemia: Clinical Studies
614 Acute Lymphoblastic Leukemia: Therapy, excluding Transplantation
615 Acute Myeloid Leukemia: Commercially Available Therapy, excluding Transplantation
616 Acute Myeloid Leukemia: Novel Therapy, excluding Transplantation
617 Acute Myeloid Leukemia: Biology, Cytogenetics, and Molecular Markers in Diagnosis and Prognosis
618 Acute Lymphoblastic Leukemia: Biology, Cytogenetics, and Molecular Markers in Diagnosis and Prognosis
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<td>621</td>
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<td>625</td>
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<td>Adoptive Immunotherapy: Mechanisms and New Approaches</td>
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<td>Immunotherapies</td>
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<td>711</td>
<td>Cell Collection and Processing</td>
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<td>721</td>
<td>Clinical Allogeneic Transplantation: Conditioning Regimens, Engraftment, and Acute Transplant Toxicities</td>
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<td>722</td>
<td>Clinical Allogeneic Transplantation: Acute and Chronic GVHD, Immune Reconstitution</td>
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<td>723</td>
<td>Clinical Allogeneic and Autologous Transplantation: Late Complications and Approaches to Disease Recurrence</td>
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<td>731</td>
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NEW THIS YEAR: Oral Abstract Sessions will be held live from Saturday, December 5, through Monday, December 7, at the times below. Each oral abstract presentation will be followed immediately by a live question-and-answer period with the presenter.

All times are in Pacific time. Duplication/recording is prohibited.

SATURDAY

7:30 a.m. – 9:00 a.m.


311. Disorders of Platelet Number or Function: Heparin-Induced Thrombocytopenia and Immune Thrombocytopenia (18–23)


617. Acute Myeloid Leukemia: Biology, Cytogenetics, and Molecular Markers in Diagnosis and Prognosis: Single Cell Profiling and Novel molecular Markers (30–35)

622. Lymphoma Biology—Non-Genetic Studies: Mechanisms of Lymphomagenesis, Progression, and Response (36–38)


632. Chronic Myeloid Leukemia: Therapy—Building The Future CML (45–50)


704. Immunotherapies: Beyond T to NK (63–68)

723. Clinical Allogeneic and Autologous Transplantation: Late Complications and Approaches to Disease Recurrence I (69–74)

732. Clinical Allogeneic Transplantation: Results I (75–80)

9:30 a.m. – 11:00 a.m.

101. Red Cells and Erythropoiesis, Structure and Function, Metabolism, and Survival, Excluding Iron: Mechanisms, Diagnosis and Treatment of Inherited (81–86)

113. Hemoglobinopathies, Excluding Thalassemia—New Genetic Approaches to Sickle Cell Disease: Fetal Hemoglobin Regulation And Reticulocyte Maturation In Sickle Cell Disease (87–92)

203. Lymphocytes, Lymphocyte Activation, and Immunodeficiency, including HIV and Other Infections: Pathogenesis and Immunotherapy (93–98)


602. Disordered Gene Expression in Hematologic Malignancy, including Disordered Epigenetic Regulation: Aberrant Nuclear Architecture and Chromatin Remodeling (105–110)


623. Mantle Cell, Follicular, and Other Indolent B-Cell Lymphoma—Clinical Studies: Mantle Cell Lymphoma Clinical Trials (117–122)

642. CLL: Therapy, excluding Transplantation (123–128)

653. Myeloma/Amyloidosis: Therapy, excluding Transplantation; CAR T Therapies for Myeloma: Novel Approaches and Longer-Term Follow Up Data (129–134)

721. Clinical Allogeneic Transplantation: Conditioning Regimens, Engraftment, and Acute Transplant Toxicities (135–140)

723. Clinical Autologous Transplantation: Autologous Transplantation: Still the Backbone of Modern Myeloma Therapies (141–146)

904. Outcomes Research—Non-Malignant Conditions: Bleeding, Immune Thrombocytopenia, and Other Hematologic Disorders (147–152)
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<td>614. Acute Lymphoblastic Leukemia: Therapy, excluding</td>
<td>113. Hemoglobinopathies, Excluding Thalassemia—New</td>
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<td>Transplantation: Chimeric Antigen Receptor T Cell Therapy</td>
<td>Genetic Approaches to Sickle Cell Disease: New Insights</td>
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<td>(159–164)</td>
<td>Into Sickle Cell Disease Pathophysiology (224–229)</td>
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<td>616. Acute Myeloid Leukemia: Novel Therapy, excluding</td>
<td>322. Disorders of Coagulation or Fibrinolysis: Hemophilia:</td>
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<td>Transplantation: Advances in immunotherapeutics for</td>
<td>Genes, Joints, and PK (230–235)</td>
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<td>management of AML (165–170)</td>
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<td>625. Lymphoma: Pre-Clinical—Chemotherapy and Biologic</td>
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<td>Agents: Novel Approaches to Overcome Resistance (171–176)</td>
<td>Agents, Reversal Drugs and Indications (236–241)</td>
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<td>508. Bone Marrow Failure: Advancing Our Biologic Understanding in Inherited and Acquired Bone Marrow Failure Disorders (254–259)</td>
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<td>604. Molecular Pharmacology and Drug Resistance in Myeloid Diseases (260–265)</td>
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<td>906. Outcomes Research—Malignant Conditions (Myeloid Disease): Real World Management And Outcome (213–218)</td>
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<td>612. Acute Lymphoblastic Leukemia: Clinical Studies: Innovative Chemotherapy and Immunotherapy Strategies in Frontline and Relapsed Disease (266–271)</td>
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<td>617. Acute Myeloid Leukemia: Biology, Cytogenetics, and Molecular Markers in Diagnosis and Prognosis: MRD and Novel molecular Markers (272–277)</td>
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<td>621. Lymphoma—Genetic/Epigenetic Biology: Genetic and epigenetic profiling of malignant lymphomas (278–283)</td>
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<td>636. Myelodysplastic Syndromes—Basic and Translational Studies (284–289)</td>
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<td>732. Clinical Allogeneic Transplantation Results III (296–301)</td>
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<td>901. Health Services Research—Non-Malignant Conditions I (302–305)</td>
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<td>902. Health Services Research—Malignant Conditions (Lymphoid Disease) I (306–311)</td>
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SUNDAY

7:00 a.m. – 9:00 a.m.

Plenary Scientific Session

9:30 a.m. – 11:00 a.m.

203. Lymphocytes, Lymphocyte Activation, and Immunodeficiency, including HIV and Other Infections: Hematologic Malignancies and COVID-19 (312–317)

301. Vascular Wall Biology, Endothelial Progenitor Cells, and Platelet Adhesion, Activation, and Biochemistry (318–323)


613. Acute Myeloid Leukemia: Novel Therapies and Treatment Approaches (330–335)

623. Mantle Cell, Follicular, and Other Indolent B-Cell Lymphoma—Clinical Studies: Clinical studies in Waldenstrom’s Macroglobulinemia, Marginal Zone Lymphoma and Hairy Cell Leukemia (336–341)

12:00 p.m. – 1:30 p.m.

311. Disorders of Platelet Number or Function: Thrombotic Thrombocytopenic Purpura and Platelet Dysfunction (376–381)

503. Clonal Hematopoiesis: Aging and Inflammation (382–387)

613. Acute Myeloid Leukemia: Molecular Mutations and Their Prognostic Implications (388–393)

618. Acute Lymphoblastic Leukemia: Biology, Cytogenetics, and Molecular Markers in Diagnosis and Prognostic III (394–399)

626. Aggressive Lymphoma (Diffuse Large B-Cell and Other Aggressive B-Cell Non-Hodgkin Lymphomas)—Results from Prospective Clinical Trials: Updates and advances in bispecific antibody therapies and autologous CAR-T approaches (400–405)

2:00 p.m. – 3:30 p.m.

331. Pathophysiology of Thrombosis I (442–447)

506. Hematopoiesis and Stem Cells: Microenvironment, Cell Adhesion, and Stromal Stem Cells (448–451)

602. Disordered Gene Expression in Hematologic Malignancy, including Disordered Epigenetic Regulation: Altered Transcription Factor Regulation (452–457)

613. Acute Myeloid Leukemia: Potpourri of Potential Practice Changing Studies (458–463)

614. Acute Lymphoblastic Leukemia: Therapy, excluding Transplantation: Targeted Therapies (464–469)

### ORAL ABSTRACT SESSIONS

**Monday, 5–7 Dec 2020**

*All times are in Pacific time. Duplication/recording is prohibited.*

#### MONDAY

**7:00 a.m. – 8:30 a.m.**

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<td>322</td>
<td>Disorders of Coagulation or Fibrinolysis: Hemophilia: Treatment and Inhibitors (507–511)</td>
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<td>331</td>
<td>Pathophysiology of Thrombosis II (512–517)</td>
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<td>603</td>
<td>Oncogenes and Tumor suppressors: Pre-clinical models and Novel Targets (518–523)</td>
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<td>605</td>
<td>Molecular Pharmacology, Drug Resistance—Lymphoid and Other Diseases: Molecular pharmacology and drug resistance mechanisms in lymphoproliferative disorders (524–529)</td>
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<tr>
<td>627</td>
<td>Aggressive Lymphoma (Diffuse Large B-Cell and Other Aggressive B-Cell Non-Hodgkin Lymphomas)—Results from Retrospective/Observational Studies: Biomarkers and Prognostication in Aggressive B-Cell Non-Hodgkin Lymphomas (530–535)</td>
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<tr>
<td>637</td>
<td>Myelodysplastic Syndromes—Clinical Studies: Personalized Clinical-Decision Tools and treatment of lower risk MDS (536–541)</td>
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<td>642</td>
<td>CLL: Therapy, excluding Transplantation (542–547)</td>
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<td>651</td>
<td>Myeloma: Biology and Pathophysiology, excluding Therapy (548–553)</td>
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<td>703</td>
<td>Adoptive Immunotherapy: Mechanisms and New Approaches: Optimizing CAR T cells for Improved Outcomes (554–558)</td>
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<td>732</td>
<td>Clinical Allogeneic Transplantation Results II (559–564)</td>
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<td>801</td>
<td>Gene Editing, Therapy and Transfer I (565–570)</td>
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<td>Disorders of Coagulation or Fibrinolysis: Von Willebrand Disease and Bleeding (571–575)</td>
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<td>Anticoagulation and Antithrombotic Therapy: COVID-19, Obesity and Hemorrhagic Complications (576–581)</td>
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<td>612</td>
<td>Acute Lymphoblastic Leukemia: Clinical Studies: Insights in Genomics, MRD, and Toxicities (582–587)</td>
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<td>615</td>
<td>Acute Myeloid Leukemia: Commercially Available Therapy, excluding Transplantation: Commercially Available Therapy, excluding Transplantation I (588–593)</td>
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<td>622</td>
<td>Lymphoma Biology—Non-Genetic Studies: Microenvironment and Immune Response in Hodgkin Lymphoma (594–596)</td>
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<td>626</td>
<td>Aggressive Lymphoma (Diffuse Large B-Cell and Other Aggressive B-Cell Non-Hodgkin Lymphomas)—Results from Prospective Clinical Trials: Incorporating novel agents and new adoptive cell therapy approaches (597–601)</td>
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<td>651</td>
<td>Myeloma: Biology and Pathophysiology, excluding Therapy (602–607)</td>
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<td>703</td>
<td>Adoptive Immunotherapy: Mechanisms and New Approaches: Adoptive Cell Therapy beyond CAR T cells (608–613)</td>
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<td>Clinical Autologous Transplantation Results II (559–564)</td>
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<td>903</td>
<td>Health Services Research—Malignant Conditions (Myeloid Disease): Treatment and Publication Patterns in Myeloid Malignancies (620–625)</td>
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**11:30 a.m. – 1:00 p.m.**

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<td>615</td>
<td>Acute Myeloid Leukemia: Commercially Available Therapy, excluding Transplantation: Commercially Available Therapy, excluding Transplantation II (632–637)</td>
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<td>621</td>
<td>Lymphoma—Genetic/Epigenetic Biology: Clinical implications of biological insights in lymphoma (638–643)</td>
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<td>624</td>
<td>Hodgkin Lymphoma and T/NK Cell Lymphoma—Clinical Studies: Immunotherapy in T/NK Cell Lymphoma (644–646)</td>
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<td>632</td>
<td>Chronic Myeloid Leukemia: Therapy: CML: New and Beyond (647–652)</td>
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<td>637</td>
<td>Myelodysplastic Syndromes—Clinical Studies: Treatment of Higher Risk Myelodysplastic syndromes (653–658)</td>
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<td>CLL: Biology and Pathophysiology, excluding Therapy: Genetic Models and Genomic Landscape of CLL and Richter Transformation (659–664)</td>
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<td>652</td>
<td>Myeloma: Pathophysiology and Pre-Clinical Studies, excluding Therapy (665–670)</td>
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**1:30 p.m. – 3:00 p.m.**

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<td>Hemoglobinopathies, Excluding Thalassemia—Clinical: Novel Treatments for Sickle Cell Disease (677–681)</td>
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<td>Granulocytes, Monocytes, and Macrophages (682–687)</td>
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<td>617</td>
<td>Acute Myeloid Leukemia: Biology, Cytogenetics, and Molecular Markers in Diagnosis and Prognosis: Dissecting AML heterogeneity to refine treatment approaches (688–693)</td>
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<td>618</td>
<td>Acute Lymphoblastic Leukemia: Biology, Cytogenetics, and Molecular Markers in Diagnosis and Prognosis I (694–699)</td>
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<td>623</td>
<td>Mantle Cell and Indolent B-Cell Lymphoma - CAR T and immunotherapy clinical studies (700–704)</td>
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<td>627</td>
<td>Aggressive Lymphoma (Diffuse Large B-Cell and Other Aggressive B-Cell Non-Hodgkin Lymphomas)—Results from Retrospective/Observational Studies: Front-Line Treatment and Prognostication of Burkitt Lymphoma, Plasmablastic Lymphoma, and DLBCL (705–708)</td>
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<td>CML: Biology and Pathophysiology, excluding Therapy: Mechanisms of Resistance and Progression in CML (709–712)</td>
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<td>635</td>
<td>Myeloproliferative Syndromes: Basic Science (713–718)</td>
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<td>Myeloma: Biology and Pathophysiology, excluding Therapy (719–723)</td>
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<td>653</td>
<td>Myeloma/Amyloidosis: Therapy, excluding Transplantation: Novel Approaches for Relapsed/Refractory Myeloma and Amyloidosis (724–729)</td>
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<td>701</td>
<td>Experimental Transplantation: Basic Biology, Pre-Clinical Models (730–735)</td>
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<td>Immunotherapies: Therapeutic T cell Manipulation (736–741)</td>
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<td><strong>102. Regulation of Iron Metabolism:</strong> Poster I (766–773)</td>
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<td><strong>112. Thalassemia and Globin Gene Regulation:</strong> Poster I (774–781)</td>
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<td><strong>113. Hemoglobinopathies, Excluding Thalassemia—New Genetic Approaches to Sickle Cell Disease:</strong> Poster I (782–793)</td>
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<td><strong>114. Hemoglobinopathies, Excluding Thalassemia—Clinical:</strong> Poster I (794–813)</td>
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<td><strong>201. Granulocytes, Monocytes, and Macrophages:</strong> Poster I (814–821)</td>
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<td><strong>203. Lymphocytes, Lymphocyte Activation, and Immunodeficiency, including HIV and Other Infections:</strong> Poster I (822–829)</td>
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<td><strong>301. Vascular Wall Biology, Endothelial Progenitor Cells, and Platelet Adhesion, Activation, and Biochemistry:</strong> Poster I (830–834)</td>
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<td><strong>311. Disorders of Platelet Number or Function:</strong> Poster I (835–850)</td>
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<td><strong>321. Blood Coagulation and Fibrinolytic Factors:</strong> Poster I (851–858)</td>
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<td><strong>322. Disorders of Coagulation or Fibrinolysis:</strong> Poster I (859–878)</td>
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<td><strong>331. Pathophysiology of Thrombosis:</strong> Poster I (879–886)</td>
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<td><strong>332. Anticoagulation and Antithrombotic Therapy:</strong> Poster I (887–896)</td>
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<td><strong>401. Clinical Sciences in Transfusion Medicine:</strong> Poster I (897–905)</td>
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<td><strong>501. Hematopoietic Stem and Progenitor Biology:</strong> Poster I (906–914)</td>
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<td><strong>502. Hematopoiesis: Regulation of Gene Transcription, Cytokines, Signal Transduction, Apoptosis, and Cell Cycle Regulation:</strong> Poster I (915–919)</td>
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<td><strong>503. Clonal Hematopoiesis: Aging and Inflammation:</strong> Poster I (920–923)</td>
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<td><strong>506. Hematopoiesis and Stem Cells: Microenvironment, Cell Adhesion, and Stromal Stem Cells:</strong> Poster I (924–926)</td>
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<td><strong>508. Bone Marrow Failure:</strong> Poster I (927–939)</td>
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<td><strong>602. Disordered Gene Expression in Hematologic Malignancy, including Disordered Epigenetic Regulation:</strong> Poster I (940–948)</td>
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<td><strong>603. Oncogenes and Tumor Suppressors:</strong> Poster I (949–955)</td>
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<td><strong>604. Molecular Pharmacology and Drug Resistance in Myeloid Diseases:</strong> Poster I (956–965)</td>
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<td><strong>605. Molecular Pharmacology, Drug Resistance—Lymphoid and Other Diseases:</strong> Poster I (966–972)</td>
<td><strong>612. Acute Lymphoblastic Leukemia: Clinical Studies:</strong> Poster I (973–984)</td>
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<td><strong>613. Acute Myeloid Leukemia: Clinical Studies:</strong> Poster I (985–1013)</td>
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<td><strong>614. Acute Lymphoblastic Leukemia: Therapy, excluding Transplantation:</strong> Poster I (1014–1024)</td>
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<td><strong>615. Acute Myeloid Leukemia: Commercially Available Therapy, excluding Transplantation:</strong> Poster I (1025–1035)</td>
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<td><strong>616. Acute Myeloid Leukemia: Novel Therapy, excluding Transplantation:</strong> Poster I (1036–1060)</td>
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<td><strong>617. Acute Myeloid Leukemia: Biology, Cytogenetics, and Molecular Markers in Diagnosis and Prognosis:</strong> Poster I (1061–1089)</td>
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<td><strong>618. Acute Lymphoblastic Leukemia: Biology, Cytogenetics, and Molecular Markers in Diagnosis and Prognosis:</strong> Poster I (1090–1100)</td>
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<td><strong>621. Lymphoma—Genetic/Epigenetic Biology:</strong> Poster I (1101–1111)</td>
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<td><strong>622. Lymphoma Biology—Non-Genetic Studies:</strong> Poster I (1112–1119)</td>
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<td><strong>623. Mantle Cell, Follicular, and Other Indolent B-Cell Lymphoma—Clinical Studies:</strong> Poster I (1120–1149)</td>
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<td><strong>624. Hodgkin Lymphoma and T/NK Cell Lymphoma—Clinical Studies:</strong> Poster I (1150–1172)</td>
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<td><strong>625. Lymphoma: Pre-Clinical—Chemotherapy and Biologic Agents:</strong> Poster I (1173–1181)</td>
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<td><strong>626. Aggressive Lymphoma (Diffuse Large B-Cell and Other Aggressive B-Cell Non-Hodgkin Lymphomas)—Results from Prospective Clinical Trials:</strong> Poster I (1182–1201)</td>
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<td><strong>627. Aggressive Lymphoma (Diffuse Large B-Cell and Other Aggressive B-Cell Non-Hodgkin Lymphomas)—Results from Retrospective/Observational Studies:</strong> Poster I (1202–1231)</td>
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<td><strong>631. Chronic Myeloid Leukemia: Biology and Pathophysiology, excluding Therapy:</strong> Poster I (1232–1233)</td>
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<td><strong>632. Chronic Myeloid Leukemia: Therapy:</strong> Poster I (1234–1247)</td>
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<td><strong>634. Myeloproliferative Syndromes: Clinical:</strong> Poster I (1248–1261)</td>
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<td><strong>635. Myeloproliferative Syndromes: Basic Science:</strong> Poster I (1262–1267)</td>
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<td><strong>636. Myelodysplastic Syndromes—Basic and Translational Studies:</strong> Poster I (1268–1276)</td>
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<td><strong>637. Myelodysplastic Syndromes—Clinical Studies:</strong> Poster I (1277–1294)</td>
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*CME credit is not offered.*
Sunday

POSTER PRESENTATIONS

5–7 Dec 2020

All times are in Pacific time. Duplication/recording is prohibited.

102. Regulation of Iron Metabolism: Poster II (1688–1694)
112. Thalassemia and Globin Gene Regulation: Poster II (1695–1702)
113. Hemoglobinopathies, Excluding Thalassemia—Basic and Translational Science: Poster II (1703–1713)
114. Hemoglobinopathies, Excluding Thalassemia—Clinical: Poster II (1714–1733)
201. Granulocytes, Monocytes, and Macrophages: Poster II (1734–1741)
203. Lymphocytes, Lymphocyte Activation, and Immunodeficiency, including HIV and Other Infections: Poster II (1742–1749)
301. Vascular Wall Biology, Endothelial Progenitor Cells, and Platelet Adhesion, Activation, and Biochemistry: Poster II (1750–1753)
311. Disorders of Platelet Number or Function: Poster II (1754–1771)
312. Blood Coagulation and Fibrinolytic Factors: Poster II (1772–1779)
322. Disorders of Coagulation or Fibrinolysis: Poster II (1780–1800)
331. Pathophysiology of Thrombosis: Poster II (1801–1808)
332. Anticoagulation and Antithrombotic Therapy: Poster II (1809–1819)
401. Basic Science and Clinical Practice in Blood Transfusion: Poster II (1820–1828)
501. Hematopoietic Stem and Progenitor Biology: Poster II (1829–1836)
503. Clonal Hematopoiesis: Aging and Inflammation: Poster II (1842–1845)
508. Bone Marrow Failure: Poster II (1849–1861)
602. Disordered Gene Expression in Hematologic Malignancy, including Disordered Epigenetic Regulation: Poster II (1862–1870)
603. Oncogenes and TumorSuppressors: Poster II (1871–1877)
631. Chronic Myeloid Leukemia: Biology and Pathophysiology, excluding Therapy: Poster II (1894–1903)
632. Chronic Myeloid Leukemia: Therapy: Poster II (1904–1931)
641. CLL: Biology and Pathophysiology, excluding Therapy: Poster I (1295–1304)
642. CLL: Therapy, excluding Transplantation: Poster I (1305–1321)
651. Myeloma: Biology and Pathophysiology, excluding Therapy: Poster I (1322–1357)
652. Myeloma: Pathophysiology and Pre-Clinical Studies, excluding Therapy: Poster I (1358–1365)
653. Myeloma/Amyloidosis: Therapy, excluding Transplantation: Poster I (1366–1420)
701. Experimental Transplantation: Basic Biology, Pre-Clinical Models: Poster I (1421–1427)
703. Adoptive Immunotherapy: Poster I (1428–1439)
704. Immunotherapies: Poster I (1440–1450)
711. Cell Collection and Processing: Poster I (1451–1455)
723. Clinical Allogeneic and Autologous Transplantation: Late Complications and Approaches to Disease Recurrence: Poster I (1495–1504)
731. Clinical Autologous Transplantation: Results: Poster I (1505–1517)
732. Clinical Allogeneic Transplantation: Results: Poster I (1518–1538)
801. Gene Editing, Therapy and Transfer: Poster I (1539–1546)
802. Chemical Biology and Experimental Therapeutics: Poster I (1547–1551)
803. Emerging Diagnostic Tools and Techniques: Poster I (1552–1562)
901. Health Services Research—Non-Malignant Conditions: Poster I (1563–1589)
902. Health Services Research—Malignant Conditions (Lymphoid Disease): Poster I (1590–1610)
903. Health Services Research—Malignant Conditions (Myeloid Disease): Poster I (1611–1621)
904. Outcomes Research—Non-Malignant Conditions: Poster I (1622–1639)
905. Outcomes Research—Malignant Conditions (Lymphoid Disease): Poster I (1640–1661)
906. Outcomes Research—Malignant Conditions (Myeloid Disease): Poster I (1662–1670)
908. Outcomes Research—Non-Malignant Conditions: Poster I (1688–1694)
909. Outcomes Research—Malignant Conditions (Lymphoid Disease): Poster I (1695–1702)
910. Outcomes Research—Malignant Conditions (Myeloid Disease): Poster I (1703–1713)
911. Outcomes Research—Malignant Conditions: Poster I (1714–1733)
914. Outcomes Research—Non-Malignant Conditions: Poster I (1750–1753)
915. Outcomes Research—Malignant Conditions: Poster I (1754–1771)
916. Outcomes Research—Non-Malignant Conditions: Poster I (1772–1779)
917. Outcomes Research—Malignant Conditions: Poster I (1780–1800)
918. Outcomes Research—Non-Malignant Conditions: Poster I (1801–1808)
919. Outcomes Research—Malignant Conditions: Poster I (1809–1819)
920. Outcomes Research—Non-Malignant Conditions: Poster I (1820–1828)
921. Outcomes Research—Malignant Conditions: Poster I (1829–1836)
923. Outcomes Research—Malignant Conditions: Poster I (1842–1845)
924. Outcomes Research—Non-Malignant Conditions: Poster I (1846–1848)
925. Outcomes Research—Malignant Conditions: Poster I (1849–1861)
926. Outcomes Research—Non-Malignant Conditions: Poster I (1862–1870)
927. Outcomes Research—Malignant Conditions: Poster I (1871–1877)
928. Outcomes Research—Non-Malignant Conditions: Poster I (1878–1886)
929. Outcomes Research—Malignant Conditions: Poster I (1887–1893)
930. Outcomes Research—Non-Malignant Conditions: Poster I (1894–1903)
938. Outcomes Research—Malignant Conditions: Poster I (2028–2035)
940. Outcomes Research—Malignant Conditions: Poster I (2065–2086)
941. Outcomes Research—Non-Malignant Conditions: Poster I (2087–2095)
942. Outcomes Research—Malignant Conditions: Poster I (2106–2145)
943. Outcomes Research—Non-Malignant Conditions: Poster I (2146–2158)
944. Outcomes Research—Malignant Conditions: Poster I (2159–2177)
634. Myeloproliferative Syndromes: Clinical: Poster II (2159–2172)
635. Myeloproliferative Syndromes: Basic Science: Poster II (2173–2178)
636. Myelodysplastic Syndromes—Basic and Translational Studies: Poster II (2179–2187)
637. Myelodysplastic Syndromes—Clinical Studies: Poster II (2188–2205)
641. CLL: Biology and Pathophysiology, excluding Therapy: Poster II (2206–2215)
642. CLL: Therapy, excluding Transplantation: Poster II (2216–2232)
651. Myeloma: Biology and Pathophysiology, excluding Therapy: Poster II (2233–2267)
652. Myeloma: Pathophysiology and Pre-Clinical Studies, excluding Therapy: Poster II (2268–2275)
653. Myeloma: Therapy, excluding Transplantation: Poster II (2276–2288)
701. Experimental Transplantation: Basic Biology, Pre-Clinical Models: Poster II (2329–2332)
703. Adoptive Immunotherapy: Mechanisms and New Approaches: Poster II (2333–2344)
704. Immunotherapies: Poster II (2345–2357)
711. Cell Collection and Processing: Poster II (2358–2362)
723. Clinical Allogeneic and Autologous Transplantation: Late Complications and Approaches to Disease Recurrence: Poster II (2401–2411)
731. Clinical Autologous Transplantation: Results: Poster II (2412–2424)
732. Clinical Allogeneic Transplantation: Results: Poster II (2425–2445)
801. Gene Editing, Therapy and Transfer: Poster II (2446–2453)
802. Chemical Biology and Experimental Therapeutics: Poster II (2454–2458)
803. Emerging Diagnostic Tools and Techniques: Poster II (2459–2470)
901. Health Services Research—Non-Malignant Conditions: Poster II (2471–2497)
902. Health Services Research—Malignant Conditions (Lymphoid Disease): Poster II (2498–2517)
903. Health Services Research—Malignant Conditions (Myeloid Disease): Poster II (2518–2527)
904. Outcomes Research—Non-Malignant Conditions: Poster II (2528–2545)
905. Outcomes Research—Malignant Conditions (Lymphoid Disease): Poster II (2546–2566)
906. Outcomes Research—Malignant Conditions (Myeloid Disease): Poster II (2567–2574)

MONDAY

7:00 a.m. – 3:00 p.m.  Poster Session III – Presentations  

102. Regulation of Iron Metabolism: Poster III (2592–2599)
112. Thalassemia and Globin Gene Regulation: Poster III (2600–2607)
113. Hemoglobinopathies, Excluding Thalassemia—Basic and Translational Science: Poster III (2608–2618)
114. Hemoglobinopathies, Excluding Thalassemia—Clinical: Poster III (2619–2638)
201. Granulocytes, Monocytes, and Macrophages: Poster III (2639–2646)
203. Lymphocytes, Lymphocyte Activation, and Immunodeficiency, including HIV and Other Infections: Poster III (2647–2653)
301. Vascular Wall Biology, Endothelial Progenitor Cells, and Platelet Adhesion, Activation, and Biochemistry: Poster III (2654–2658)
311. Disorders of Platelet Number or Function: Poster III (2659–2677)
322. Disorders of Coagulation or Fibrinolysis: Poster III (2685–2704)
331. Pathophysiology of Thrombosis: Poster III (2705–2711)
332. Anticoagulation and Antithrombotic Therapy: Poster III (2712–2721)
401. Basic Science and Clinical Practice in Blood Transfusion: Poster III (2722–2729)
501. Hematopoietic Stem and Progenitor Biology: Poster III (2730–2737)
503. Clonal Hematopoiesis: Aging and Inflammation: Poster III (2743–2746)
508. Bone Marrow Failure: Poster III (2749–2761)
602. Disordered Gene Expression in Hematologic Malignancy, including Disordered Epigenetic Regulation: Poster III (2762–2769)
603. Oncogenes and Tumor Suppressors: Poster III (2770–2776)
604. Molecular Pharmacology and Drug Resistance in Myeloid Diseases: Poster III (2777–2785)
605. Molecular Pharmacology, Drug Resistance—Lymphoid and Other Diseases: Poster III (2786–2792)
612. Acute Myeloid Leukemia: Clinical Studies: Poster III (2793–2803)
613. Acute Myeloid Leukemia: Clinical Studies: Poster III (2804–2832)
614. Acute Lymphoblastic Leukemia: Therapy, excluding Transplantation: Poster III (2833–2842)
615. Acute Myeloid Leukemia: Commercially Available Therapy, excluding Transplantation: Poster III (2843–2853)
616. Acute Myeloid Leukemia: Novel Therapy, excluding Transplantation: Poster III (2854–2877)
617. Acute Myeloid Leukemia: Biology, Cytogenetics, and Molecular Markers in Diagnosis and Prognosis: Poster III (2878–2906)
618. Acute Lymphoblastic Leukemia: Biology, Cytogenetics, and Molecular Markers in Diagnosis and Prognosis: Poster III (2907–2915)
621. Lymphoma—Genetic/Epigenetic Biology: Poster III (2916–2926)
622. Lymphoma Biology—Non-Genetic Studies: Poster III (2927–2933)
623. Mantle Cell, Follicular, and Other Indolent B-Cell Lymphoma—Clinical Studies: Poster III (2934–2963)
625. Lymphoma: Pre-Clinical—Chemotherapy and Biologic Agents: Poster III (3007–3015)
626. Aggressive Lymphoma (Diffuse Large B-Cell and Other Aggressive B-Cell Non-Hodgkin Lymphomas)—Results from Prospective Clinical Trials: Poster III (3016–3034)
627. Aggressive Lymphoma (Diffuse Large B-Cell and Other Aggressive B-Cell Non-Hodgkin Lymphomas)—Results from Retrospective/Observational Studies: Poster III (3035–3063)

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POSTER PRESENTATIONS

631. Chronic Myeloid Leukemia: Biology and Pathophysiology, excluding Therapy: Poster III (3064–3064)
632. Chronic Myeloid Leukemia: Therapy: Poster III (3065–3078)
634. Myeloproliferative Syndromes: Clinical: Poster III (3079–3092)
635. Myeloproliferative Syndromes: Basic Science: Poster III (3093–3098)
636. Myelodysplastic Syndromes—Basic and Translational Studies: Poster III (3099–3107)
637. Myelodysplastic Syndromes—Clinical Studies: Poster III (3108–3125)
641. CLL: Biology and Pathophysiology, excluding Therapy: Poster III (3126–3135)
642. CLL: Therapy, excluding Transplantation: Poster III (3136–3152)
651. Myeloma: Biology and Pathophysiology, excluding Therapy: Poster III (3153–3187)
652. Myeloma: Pathophysiology and Pre-Clinical Studies, excluding Therapy: Poster III (3188–3195)
653. Myeloma: Therapy, excluding Transplantation: Poster III (3196–3248)
701. Experimental Transplantation: Basic Biology, Pre-Clinical Models: Poster III (3249–3254)
703. Adoptive Immunotherapy: Mechanisms and New Approaches: Poster III (3255–3265)
704. Immunotherapies: Poster III (3266–3278)
711. Cell Collection and Processing: Poster III (3279–3283)
723. Clinical Allogeneic and Autologous Transplantation: Late Complications and Approaches to Disease Recurrence: Poster III (3321–3330)
731. Clinical Autologous Transplantation: Results: Poster III (3331–3343)
732. Clinical Allogeneic Transplantation: Results: Poster III (3344–3365)
801. Gene Editing, Therapy and Transfer: Poster III (3366–3373)
802. Chemical Biology and Experimental Therapeutics: Poster III (3374–3378)
803. Emerging Diagnostic Tools and Techniques: Poster III (3379–3389)
901. Health Services Research—Non-Malignant Conditions: Poster III (3390–3416)
902. Health Services Research—Malignant Conditions (Lymphoid Disease): Poster III (3417–3436)
903. Health Services Research—Malignant Conditions (Myeloid Disease): Poster III (3437–3446)
904. Outcomes Research—Non-Malignant Conditions: Poster III (3447–3464)
905. Outcomes Research—Malignant Conditions (Lymphoid Disease): Poster III (3465–3485)
906. Outcomes Research—Malignant Conditions (Myeloid Disease): Poster III (3486–3493)
Hematology 2020 provides peer-reviewed review articles from the 2020 ASH Annual Meeting.

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Satellite Symposia will take place on Friday, December 4, 2020, preceding the ASH annual meeting. ASH appreciates its corporate and nonprofit partners for their participation in this program. The Society values its partnerships and the supportive role that members of this community play in an effort to provide hematologists with quality educational programs. Satellite Symposia are not CME-accredited through ASH. Each symposium lists a contact person for accreditation information.

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**EARLY MORNING SYMPOSIA:**
7:00 a.m. – 10:00 a.m.

**A Case-based Workshop: Clinical and Laboratory Aspects of Hemophilia and Thrombosis**
7:00 a.m. – 10:00 a.m.

*This program is sponsored and supported by Mayo Clinic.*

**Co-Chairs:**
RAJIV K. PRUTHI, MBBS, Mayo Clinic, Rochester, MN
DONG CHEN, MD, PhD, Mayo Clinic, Rochester, MN

**Speakers:**
RAJIV K. PRUTHI, MBBS, Mayo Clinic, Rochester, MN
ANAND PADMANABHAN, MBBS, PhD, Mayo Clinic, Rochester, MN
DONG CHEN, MD, PhD, Mayo Clinic, Rochester, MN
ANA I. CASANegra, MD, Mayo Clinic, Rochester, MN

Contact: Heidi Zunker
Email: zunker.heidi@mayo.edu

**Acute Myeloid Leukemia: Using Available Evidence and Guidelines to Make Sense of a Rapidly Evolving Treatment Paradigm**
7:00 a.m. – 10:00 a.m.

*This program is sponsored by Clinical Care Options and supported by educational grants from Agios Pharmaceuticals Inc., Jazz Pharmaceuticals and Pfizer, Inc. Provided by the National Comprehensive Cancer Network in partnership with Clinical Care Options, LLC.*

**Chair:**
FARHAD RAVANDI, MBBS, The University of Texas MD Anderson Cancer Center, Houston, TX

**Speakers:**
AMIR T. FATHI, MD, Massachusetts General Hospital Cancer Center, Cambridge, MA
ALICE S. MIMS, MD, Medical University of South Carolina, Columbus, OH

Contact: Clinical Care Options
Email: meetings@clinicaloptions.com

**Advances in Diagnosis and Management of Myelodysplastic Syndromes**
7:00 a.m. – 10:00 a.m.

*This program is sponsored and supported by MDS Foundation, Inc.*

**Chair:**
MARIO CAZZOLA, MD, Fondazione IRCCS Policlinico San Matteo Pavia, Pavia, Italy

**Speakers:**
JANE E. CHURPEK, MD, MS, University of Wisconsin School of Medicine and Public Health, Madison, WI
RAFAEL BEJAR, MD, PhD, University of California—San Diego, La Jolla, CA
AMY E. DEZERN, MD, Johns Hopkins University, Baltimore, MD
KATHARINA S. GÖTZE, Technical University of Munich, Munich, Germany
SAAR I. GILL, MD, PhD, University of Pennsylvania, Philadelphia, PA
STEPHANE DE BOTTON, Institut Gustave Roussy, Villejuif, France

Contact: Lea Harrison
Email: lharrison@mds-foundation.org
### An Optimized Approach to Sickle Cell Disease Care in a New Era of Treatment

**7:00 a.m. – 10:00 a.m.**

*This program is sponsored by Vindico Medical Education and supported by Global Blood Therapeutics.*

**Chair:** Jane S. Hankins, MD, MS, St. Jude Children’s Research Hospital, Memphis, TN

**Speakers:**
- Daniel E. Bauer, MD, PhD, Boston Children’s Hospital, Harvard Medical School, Boston, MA
- Modupe Idowu, MD, The University of Texas, Houston, Houston, TX
- Caterina P. Minniti, MD, National Institutes of Health Clinical Center, Chevy Chase, MD
- Akrshay Sharma, MBBS, St. Jude Children’s Research Hospital, Memphis, TN

Contact: CME Resource
Email: CME@VindicoCME.com

### Consensus or Controversy? Investigators Discuss Clinical Practice Patterns and Available Research Data Guiding the Management of Patients with Multiple Myeloma (Part 1 of a 4-Part Series)

**7:00 a.m. – 10:00 a.m.**

*This program is sponsored by Research To Practice and supported by Abbvie Inc, Bristol-Myers Squibb Company, GlaxoSmithKline, Karyopharm, Oncopeptides, Sanofi Genzyme and Takeda Oncology.*

**Chair:** Neil Love, MD, Research To Practice, Miami, FL

**Speakers:**
- Rafael Fonseca, MD, Mayo Clinic, Phoenix, AZ
- Ola Landgren, MD, PhD, Memorial Sloan Kettering Cancer Center, New York, NY
- Nikhil C. Munshi, MD, Dana-Farber Cancer Institute, Boston, MA
- Robert Z. Orlowski, MD, PhD, MD Anderson Cancer Center, Houston, TX
- Edward A. Stadtmauer, MD, FACP, University of Pennsylvania, Philadelphia, PA

Contact: Sylvia Eriksen
Email: seriksen@researchtopractice.com

### Application of Individualized Treatment for CLL/SLL: Novel Agents, Combinations, and Sequencing Therapy

**7:00 a.m. – 10:00 a.m.**

*This program is sponsored by Clinical Care Options and supported by National Comprehensive Cancer Network.*

**Chair:** William G. Wierda, MD, PhD, The University of Texas MD Anderson Cancer Center, Houston, TX

**Speakers:**
- Jeremy S. Abramson, MD, Massachusetts General Hospital Cancer Center, Boston, MA
- Brian T. Hill, MD, Cleveland Clinic Foundation, Cleveland, OH

Contact: Clinical Care Options
Email: meetings@clinicaloptions.com

### Exploring Antibody Therapy in ALL: How and Why to Integrate Antibody-Based Treatment Into Patient Management

**7:00 a.m. – 10:00 a.m.**

*This program is sponsored by PeerView Institute for Medical Education and supported by Pfizer.*

**Chair:** David I. Marks, MB, MS, FRACP, PhD, FRCPath, University Hospitals Bristol, Bristol, United Kingdom

**Speakers:**
- Nicholas J. Short, MD, The University of Texas MD Anderson Cancer Center, Houston, TX
- Daniel J. DeAngelis, MD, PhD, Dana-Farber Cancer Institute, Boston, MA

Contact: PVI Live
Email: Questions@PeerView.com
How I Think, How I Treat in the New Age of AML Care: Personal Perspectives on New Evidence and Innovative Therapeutics

7:00 a.m. – 10:00 a.m.

This program is sponsored by PeerView Institute for Medical Education and supported by Actinium Pharmaceuticals, Gilead Sciences, Inc., and Jazz Pharmaceuticals, Inc.

Co-Chairs:
Harry P. Erba, MD, PhD, University of Alabama at Birmingham, Birmingham, AL
Naval Daver, MD, MD Anderson Cancer Center, Houston, TX

Speakers:
Gail J. Roboz, MD, Weill Cornell Medicine and The New York Presbyterian Hospital, New York, NY
Tara Lin, MD, University of Kansas, Westwood, KS

Contact: PVI Live
Email: Questions@PeerView.com

Managing Myeloma: Where We Are, Where We’re Going, and Where We SHOULD Be Going (Time to Choose Sides!)

7:00 a.m. – 10:00 a.m.

This program is supported by RedMedEd and supported by the Multiple Myeloma Research Foundation.

Co-Chairs:
Hearn Jay Cho, MD, PhD, Tisch Cancer Institute, New York, NY
Paul G. Richardson, MD, Dana-Farber Cancer Institute, Boston, MA
A. Keith Stewart, MBChB, Princess Margaret Cancer Centre, University Health Network, Toronto, Ontario, Canada

Speakers:
Adam D. Cohen, MD, University of Pennsylvania, Philadelphia, PA
Suzanne Lentzsch, MD, PhD, Columbia University Medical Center, New York, NY
David S. Siegel, MD, Hackensack University Medical Center, Hackensack, NJ

Contact: Karen Tenaglia
Email: ktenaglia@redmeded.com

Mapping the New Era in CLL Management: Precision Medicine, Optimized Therapeutic Sequencing, and Patient Perspectives in Treatment-Naïve and Relapsed Disease

7:00 a.m. – 10:00 a.m.

This program is supported by independent educational grants from AstraZeneca LP, Adaptive Biotechnologies, Pharmacyclics LLC, an AbbVie Company and Janssen Biotech, Inc., administered by Janssen Scientific Affairs, LLC.

Chair:
John G. Gribben, MD, DSc, FRCP, FRCPATH, FMedSci, Barts Cancer Institute, London, United Kingdom

Speakers:
Ryan Jacobs, MD, Levine Cancer Institute/Atrium Health, Charlotte, NC
Philip A. Thompson, MB, MS, MD Anderson Cancer Center, Houston, TX
Alessandra Tedeschi, MD, ASST Niguarda (Grande Ospedale Metropolitano Niguarda), Milan, Italy

Contact: PVI Live
Email: Questions@PeerView.com

Mastering the Treatment of Myeloid Malignancies in the Era of Personalized Medicine

7:00 a.m. – 10:00 a.m.

This program is sponsored by Cleveland Clinic and supported by Cleveland Clinic & AAMDS.

Chair:
Bhumika J. Patel, MD, Cleveland Clinic, Cleveland, OH

Speakers:
Kelly L. Bolton, MD, PhD, Memorial Sloan Kettering Cancer Center, New York, NY
Vikas Gupta, MD, FRCP, FRCPATH, The Princess Margaret Cancer Centre, Toronto, Ontario, Canada
Betty K. Hamilton, MD, Cleveland Clinic Foundation, Cleveland, OH
Jeffrey E. Lancer, MD, H. Lee Moffitt Cancer Center & Research Institute, Tampa, FL
Jaroslaw P. Maciejewski, MD, PhD, Taussig Cancer Center, Cleveland, OH
Guillermo F. Sanz, MD, PhD, Hospital Universitario La Fe, Valencia, Spain

Contact: Samantha Pringle
Email: pringls@ccf.org
**Preparing for Personalized Care in MDS: Integrating Innovative Treatments Into a Cohesive Patient Care Model**

7:00 a.m. – 10:00 a.m.

*This program is sponsored by PeerView Institute for Medical Education and supported by Astex Pharmaceuticals, Inc., Bristol Myers Squibb, Taiho Oncology, Inc., and Takeda Oncology.*

**Chair:**
STEVEN D. GORE, MD, Yale Cancer Center, New Haven, CT

**Speakers:**
MICHAEL R. SAVONA, MD, Vanderbilt University Medical Center, Nashville, TN
DAVID A. SALLMAN, MD, H. Lee Moffitt Cancer Center, Tampa, FL
PRAPTI PATEL, MD, The University of Texas Southwestern Medical Center, Dallas, TX

Contact: PVI Live
Email: Questions@PeerView.com

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**Understanding Cold Agglutinin Disease: How Do Emerging Treatment Options Have the Potential to Transform Patient Outcomes?**

7:00 a.m. – 10:00 a.m.

*This program is sponsored by Physicians’ Education Resource, LLC (PER) and supported by Sanofi Genzyme.*

**Chair:**
ALEXANDER RÖTH, MD, University Hospital Essen, Essen, Germany

**Speakers:**
ILENE C. WEITZ, University of Southern California, Los Angeles, CA
DAVID J. KUTER, MD, Massachusetts General Hospital, Boston, MA
WILMA BARCELLINI, Fondazione IRCCS Ca’ Granda, Ospedale Maggiore Policlinico, Milan, Italy

Contact: Dayna Kleinstein
Email: info@gotoper.com

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**LATE MORNING SYMPOSIA:**

11:00 a.m. – 2:00 p.m.

**Accelerating Toward a Cure for Myeloma: Emerging Data, New Agents, and an Evolving Treatment Paradigm**

11:00 a.m. – 2:00 p.m.

*This program is sponsored by Clinical Care Options, LLC and supported by educational grants from Amgen, Bristol-Myers Squibb, GlaxoSmithKline, Karyopharm & Oncopeptides. Provided by the Annenberg Center for Health Sciences at Eisenhower. In partnership with Clinical Care Options, LLC & the International Myeloma Foundation.*

**Chair:**
BRIAN G.M. DURIE, MD, Cedars Sinai Cancer Center, Los Angeles, CA

**Speakers:**
S. VINCENT RAJKUMAR, MD, Mayo Clinic, Rochester, MN
SHAJI K. KUMAR, MD, Mayo Clinic, Rochester, MN
PHILIPPE MOREAU, MD, Centre Hospitalier Universitaire, Nantes, FRA

Contact: Clinical Care Options
Email: meetings@clinicaloptions.com

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**Advances in GvHD: Expert Guidance on the Current Treatment Landscape, Optimizing Prophylaxis, and Integrating Novel Therapies**

11:00 a.m. – 2:00 p.m.

*This program is sponsored by Clinical Care Options, LLC and supported by an educational grant from Incyte Corporation. Provided by Clinical Care Options, LLC.*

**Chair:**
COREY S. CUTLER, MD, MPH, FRCPC, Dana-Farber Cancer Institute, Boston, MA
Advances in Therapy for Inherited Non-Malignant Blood Disorders: Focus on Sickle Cell Disease and Hemophilia.

11:00 a.m. – 2:00 p.m.

This program is sponsored by Vindico Medical Education and supported by an educational grant from Novo Nordisk Inc. This continuing medical education activity is provided by Vindico Medical Education.

Chair:
STEVEN W. PIPE, MD, University of Michigan, Ann Arbor, MI

Speakers:
MARK REDING, MD, University of Minnesota Medical Center, Minneapolis
CHRISTINE GUELCHER, HEMOSTASIS RN-BC, MS, PPCNP-BC, Children’s National Health System, Washington, DC
BIREE ANDEMARIAM, MD, University of Connecticut Health Center, West Hartford, CT

Contact: CME Resource
Email: CME@VindicoCME.com

Clinical Advances in Immune Thrombocytopenia: Integrating New Therapies

11:00 a.m. – 2:00 p.m.

This program is sponsored by Clinical Care Options, LLC and supported by educational grants from Amgen and Dova Pharmaceuticals. Provided by Clinical Care Options, LLC.

Chair:
DAVID J. KUTER, MD, Massachusetts General Hospital, Boston, MA

Speakers:
KEITH R. MCCRAE, MD, Cleveland Clinic, Cleveland, OH
MICHAEL D. TARANTINO, MD, Bleeding & Clotting Disorders Institute, Peoria, IL

Contact: Clinical Care Options
Email: meetings@clinicaloptions.com

Consensus or Controversy? Investigators Discuss Clinical Practice Patterns and Available Research Data Guiding the Management of Patients with Chronic Lymphocytic Leukemia (Part 2 of a 4-Part Series)

11:00 a.m. – 2:00 p.m.

This program is sponsored by Research To Practice and supported by AstraZeneca Pharmaceuticals LP, Bristol-Myers Squibb Company, Genentech, a member of the Roche Group, Pharmacies LLC, An AbbVie Company and Janssen Biotech Inc, administered by Janssen Scientific Affairs LLC.

Chair:
NEIL love, MD, Research To Practice, Miami, FL

Speakers:
MATTHEW S. DAVIDS, MD, Dana-Farber Cancer Institute, Boston, MA
KERRY A. ROGERS, MD, The Ohio State University Comprehensive Cancer Center, Columbus, OH
Tanya Siddiqi, MD, City of Hope, Duarte, CA
Stephan Stilgenbauer, Professor Dr, Department of Internal Medicine III, Ulm University, Ulm, Germany
William G. Wierda, MD, PhD, The University of Texas MD Anderson Cancer Center, Houston, TX

Contact: Sylvia Eriksen
Email: seriksen@researchtopractice.com

**Medical Crossfire®: Bridging Unmet Needs with Emerging Data In Relapsed/Refractory DLBCL To Improve Patient Outcomes**

11:00 a.m. – 2:00 p.m.

_This program is sponsored by Physicians’ Education Resource, LLC (PER) and supported by an educational grant from MorphoSys._

**Speakers:**
Ranjana Advani, MD, Stanford University, Stanford, CA
Kami J. Maddocks, MD, Ohio State University Hospital, Columbus, OH
Georg Lenz, University Hospital Muenster, Munster, Germany
Grzegorz S. Nowakowski, MD, Mayo Clinic, Rochester, MN

Contact: Dayna Kleinstein
Email: info@gotoper.com

**D is for Diagnosis: Detecting and Treating Rare Disorders in Hematologic Practice**

11:00 a.m. – 2:00 p.m.

_This program is sponsored by Physicians’ Education Resource, LLC (PER) and supported by Sanofi Genzyme._

**Chair:**
Atul Mehta, FRCP, Royal Free Hospital, London, United Kingdom

**Speakers:**
Marie Scully, MD, University College London Hospitals, Cardiometabolic Programme, National Institute for Health Research UCLH-UCL Biomedical Research Center, London, United Kingdom
Nicola Cooper, Hammersmith Hospital, Imperial College, London, United Kingdom
Alan Lichtin, MD, Leukemia Program, Cleveland, OH

Contact: Dayna Kleinstein
Email: info@gotoper.com

**Individualizing Treatment Plans and Optimizing Outcomes for Patients with MF and PV: Stories Behind The Science**

11:00 a.m. – 2:00 p.m.

_This program is sponsored by Physicians’ Education Resource, LLC (PER) and supported by educational grants from Bristol Myers Squibb, Constellation Pharmaceuticals, Inc., Incyte Corporation, and PharmaEssentia USA._

**Chair:**
Srdan Verstovsek, MD, PhD, MD Anderson Cancer Center, Houston, TX

Contact: Dayna Kleinstein
Email: info@gotoper.com

**Medical Crossfire®: Exploring the Modern Management of Acute Lymphoblastic Leukemia from AYA to Adult**

11:00 a.m. – 2:00 p.m.

_This program is sponsored by Physicians’ Education Resource® (PER®) and supported by educational grants from Amgen, Jazz Pharmaceuticals, and Takeda Oncology._

**Speakers:**
Nicola Goekbuget, MD, Goethe University Hospital, Frankfurt, Germany
Hagop M. Kantarjian, MD, MD Anderson Cancer Center, Houston, TX
Ching-Hon Pui, MD, St. Jude Children’s Research Hospital, Memphis, TN
Claire Roddie, PhD, MD, University College London, London, United Kingdom

Contact: Dayna Kleinstein
Email: info@gotoper.com
**New Targets, New Data, New Guidelines: Assessing Treatment Options to Personalize Care in B-Cell Lymphomas**

**Chair:**
**Andre H. Goy, MD, John Theurer Cancer Center, Hackensack University Medical Center, Hackensack, NJ**

**Speakers:**
- **Brad S. Kahl, MD**, Washington University School of Medicine in St. Louis, Saint Louis, MO
- **Jason R. Westin, MD, MD Anderson**, Houston, TX
- **Thomas E. Witzig, MD**, Mayo Clinic, Rochester, MN

Contact: Dayna Kleinstein  
Email: dkleinstein@gotoper.com

**T-Cell Lymphoma Tumor Board: Application of Novel Agents for the Treatment of PTCL and CTCL**

**Chair:**
**Steven M. Hortwitz, MD**, Memorial Sloan Kettering Cancer Center, New York, NY

**Speakers:**
- **Ahmet Dogan, MD, PhD**, Memorial Sloan Kettering Cancer Center, New York, NY
- **Neha Mehta-Shah, MD**, Washington University, St. Louis, MO
- **Pamela B. Allen, MD, MSc**, Emory University Winship Cancer Institute, Decatur, GA

Contact: Dayna Kleinstein  
Email: info@gotoper.com

**Taking Action with Minimal Residual Disease: Technique, Role, and Utilization of MRD to Improve Outcomes in Patients with Hematologic Malignancies**

**Chair:**
**Andre H. Goy, MD, John Theurer Cancer Center, Hackensack University Medical Center, Hackensack, NJ**

**Speakers:**
- **Nitin Jain, MD, MD Anderson Cancer Center**, Houston, TX
- **Mark Roschewski, MD, National Cancer Institute, National Institutes of Health, Bethesda, MD**

Contact: Dayna Kleinstein  
Email: dkleinstein@gotoper.com
### AFTERNOON SYMPOSIA:
3:00 p.m. – 6:00 p.m.

#### Advances in CAR T-Cell Therapy: What Does the Future Look Like?

**3:00 p.m. – 6:00 p.m.**

*This program is sponsored by Physicians’ Education Resource, LLC (PER) and supported by Kite Pharma, Inc. and Novartis Pharmaceuticals Corporation.*

**Chair:**
David G. Maloney, MD, PhD, Fred Hutchinson Cancer Research Center, Seattle, WA

**Speakers:**
Stephanie Jackson, MSN, RN, AOCNS, BMTCN, Ronald Reagan UCLA Medical Center, Los Angeles, CA
Krishna V. Komanduri, MD, University of Miami Miller School of Medicine, Miami, FL
Matthew J. Frigault, MD, MSc, Massachusetts General Hospital, Dorchester, MA

Contact: Dayna Kleinstein
Email: info@gotoper.com

#### Addressing the Medical Need in CLL: How BTK Inhibitors Are Improving Outcomes

**3:00 p.m. – 6:00 p.m.**

*This program is sponsored by Clinical Care Options, LLC and supported by educational grants from AstraZeneca and Beigene. Provided by Clinical Care Options, LLC.*

**Chair:**
Ian W. Flinn, MD, PhD, Sarah Cannon Research Institute, Nashville, TN

**Speakers:**
Susan M. O’Brien, MD, UCI Cancer Center, Orange, CA
John M. Pagel, MD, PhD, Fred Hutchinson Cancer Research Center, Seattle, WA

Contact: Clinical Care Options
Email: meetings@clinicaloptions.com

#### A Fresh Look at CAR T-Cell Therapy: Recent Advances, New Evidence, and Evolving Paradigms to Improve Patient Care

**3:00 p.m. – 6:00 p.m.**

*This program is sponsored by Clinical Care Options, LLC and supported by an educational grant from Bristol-Myers Squibb. Provided by Clinical Care Options, LLC.*

**Chair:**
Renier J. Brentjens, MD, PhD, Memorial Sloan Kettering Cancer Center, New York, NY

**Speakers:**
Noopur S. Rajb, MD, Massachusetts General Hospital, Boston, MA
Frederick L. Locke, MD, Moffitt Cancer Center, Tampa, FL

Contact: Clinical Care Options
Email: meetings@clinicaloptions.com

#### Adopting New Approaches for Relapsed/Refractory Follicular Lymphoma

**3:00 p.m. – 6:00 p.m.**

*This program is sponsored by MedscapeLIVE! and supported by Epizyme, Inc. There may be additional supporters confirmed.*

**Chair:**
Loretta J. Nastoupil, MD, The University of Texas MD Anderson Cancer Center, Houston, TX

**Speakers:**
Connie Lee Batlevi, MD, PhD, Memorial Sloan Kettering Cancer Center, Short Hills, NJ
Matthew A. Lunning, DO, FACP, University of Nebraska Medical Center, Omaha, NE

Contact: Jaye Harden
Email: jharden@medscapelive.com
### Applying Data to Practice: The Role of BTK Inhibitors for the Treatment of CLL

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<td>This program is sponsored by MedscapeLIVE! and supported by AstraZeneca.</td>
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**Chair:**
Jennifer Woyach, MD, The Ohio State University, Columbus, OH

**Speakers:**
- John N. Allan, MD, Weill Cornell Medicine, Long Island City, NY
- Deborah M. Stephens, DO, Huntsman Cancer Institute, Salt Lake City, UT

Contact: Jaye Harden  
Email: jharden@medscapelive.com

### Contemporary Management of Hemophilia A: Expert Guidance to Improve Patient Outcomes

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**Chair:**
Miguel A. Escobar, MD, The University of Texas Health Science Center and Gulf States Hemophilia and Thrombophilia Center, Houston, TX

**Speakers:**
- Michael U. Callaghan, MD, Wayne State University, Detroit, MI
- Rebecca Kruse-Jarres, MD, MPH, Bloodworks Northwest, Seattle, WA

Contact: Clinical Care Options  
Email: meetings@clinicaloptions.com

### Consensus or Controversy? Investigators Discuss Clinical Practice Patterns and Available Research Data Guiding the Management of Patients with Acute Myeloid Leukemia (Part 3 of a 4-Part Series)

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<td>This program is sponsored by Research To Practice and supported by Abbvie Inc, Astellas, Bristol-Myers Squibb Company, Daiichi Sankyo, Genentech, a member of the Roche Group, Helmsinn Healthcare SA and Pfizer Inc.</td>
</tr>
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</table>

**Chair:**
Neil Love, MD, Research To Practice, Miami, FL

**Speakers:**
- Alexander E. Perl, MD, University of Pennsylvania, Philadelphia, PA
- Daniel A. Polleyea, University of Colorado, Denver, CO
- Eytan M. Stein, MD, Memorial Sloan Kettering Cancer Center, New York, NY
- Andrew H. Wei, MBBS, PhD, The Alfred Hospital, Melbourne, Australia
- Mark Levis, MD, PhD, Johns Hopkins University, Baltimore, MD

Contact: Clinical Care Options  
Email: jharden@medscapelive.com

### Evolving the Standard of Care: Rethinking the Treatment Paradigm for Iron Deficiency Anemia

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**Chair:**
Carlo Brugnara, MD, The Children’s Hospital, Boston, MA

**Speakers:**
- Michael Auerbach, MD, Auerbach Hem-Onc Associates, Inc., Baltimore, MD
- Myles Wolf, MD, MMSc, Duke University School of Medicine, Durham, NC

Contact: Jaye Harden  
Email: jharden@medscapelive.com
### Experts Debate Optimal Approaches to the Treatment of Multiple Myeloma

**3:00 p.m. – 6:00 p.m.**

*This program is sponsored by Bio Ascend and supported by GlaxoSmithKline, Janssen, Oncopeptides.*

**Chair:**
SAGAR LONIAL, MD, Emory University School of Medicine, Atlanta, GA

**Speakers:**
KENNETH ANDERSON, MD, Dana-Farber Cancer Institute, Boston, MA
PIETER SONNEVELD, MD, PhD, Erasmus MC, Rotterdam, Netherlands
PETER VOORHEES, MD, Levine Cancer Center, Charlotte, NC

Contact: Chloe Dunnam
Email: dunnam@bioascend.com

### How to Do It™ Interactive Workshop: Taking Action with Clinical Advances in Chronic Lymphocytic Leukemia

**3:00 p.m. – 6:00 p.m.**

*This program is sponsored by Physicians’ Education Resource, LLC and supported by educational grants from AstraZeneca and Pharmacyclics.*

**Chair:**
RICHARD R. FURMAN, MD, Weill Cornell Medical College, New York, NY

**Speakers:**
FARRUKH T. AWAN, MD, The Ohio State University, Dallas, TX
JOHN M. PAGEL, MD, PhD, DSc, Swedish Cancer Institute, Center for Blood Disorders and Stem Cell Transplantation, Seattle, WA

Contact: Dayna Kleinstein
Email: dkleinstein@gotoper.com

### Key Considerations: Advances in Gene Therapy for Hemophilia

**3:00 p.m. – 6:00 p.m.**

*This program is sponsored by The France Foundation and supported by BioMarin, uniQure, Pfizer.*

**Chair:**
GLENN F. PIERCE, MD, PhD, Consultant, La Jolla, CA

**Speakers:**
LINDSEY GEORGE, MD, University Medical Centre Hamburg-Eppendorf, Haddonfield, NJ
ALFONSO IORIO, MD, PhD, McMaster University, Hamilton, Ontario, Canada
BARBARA A. KONKLE, MD, Bloodworks Northwest, Seattle, WA

Contact: Amanda Noe
Email: anoe@francefoundation.com

### New Agents and Therapeutic Strategies in Beta-Thalassemia

**3:00 p.m. – 6:00 p.m.**

*This program is sponsored by Clinical Care Options, LLC and supported by an educational grant from Bristol-Myers Squibb. Provided by Clinical Care Options, LLC.*

**Chair:**
JANET L. KWIAKOWSKI, MD, MSCE, The Children’s Hospital of Philadelphia, Philadelphia, PA

**Speakers:**
JEANNE BOUDREAU, MD, Children’s Healthcare of Atlanta, Emory University, Atlanta, GA
SUJIT SHETH, MD, Cornell University, New York, NY

Contact: Clinical Care Options
Email: meetings@clinicaloptions.com

### Sickle Cell Disease: Targeting Complications to Improve Long-term Implications

**3:00 p.m. – 6:00 p.m.**

*This program is sponsored by Physicians’ Education Resource, LLC (PER) and supported by an educational grant from Novartis Pharmaceuticals Corporation.*

**Chair:**
KENNETH I. ATAGA, MD, University of North Carolina At Chapel Hill, Memphis, TN

Contact: Dayna Kleinstein
Email: info@gotoper.com
Transforming the Treatment Paradigm for Patients With MDS

3:00 p.m. – 6:00 p.m.

This program is sponsored by Clinical Care Options, LLC and supported by educational grants from Bristol-Myers Squibb and Taiho Oncology. Provided by Clinical Care Options, LLC.

Chair: Ram I. Komrokji, MD, H. Lee Moffitt Cancer Center and Research Institute, Tampa, FL

Speakers: Guillermo Garcia-Manero, MD, The University of Texas MD Anderson Cancer Center, Department of Leukemia, Houston, TX
           Jamile M. Shamma, MD, Rush University Medical Center, Chicago, IL

Contact: Clinical Care Options
Email: meetings@clinicaloptions.com

EVENING SYMPOSIA:

7:00 p.m. – 10:00 p.m.

Consensus or Controversy? Investigators Discuss Clinical Practice Patterns and Available Research Data Guiding the Management of Patients with Hodgkin and Non-Hodgkin Lymphoma (Part 4 of a 4-Part Series)

7:00 p.m. – 10:00 p.m.

This program is sponsored by Research To Practice and supported by AstraZeneca Pharmaceuticals LP, Bristol-Myers Squibb Company, Genentech, a member of the Roche Group, Incyte Corporation, Karyopharm Therapeutics Inc and Seattle Genetics.

Chair: Neil Love, MD, Research To Practice, Miami, FL

Speakers: Jonathan W. Friedberg, MD, MSSc, University of Rochester, Rochester, NY
           John Kuruvilla, MD, The Princess Margaret Hospital, Toronto, Ontario, Canada
           Ann S. Lasce, MD, MSc, Dana-Farber Cancer Institute, Boston, MA
           John P. Leonard, MD, Weill Cornell Medical College, Pelham Manor, NY
           Michael E. Williams, MD, UVA Health System Hospital West, Charlottesville, VA

Contact: Sylvia Eriksen
Email: seriksen@researchtopractice.com

Improving Outcomes in MDS and MPN: Tailoring Treatment Based on Patient- and Disease-Specific Factors

7:00 p.m. – 10:00 p.m.

This program is sponsored by Physicians’ Education Resource® (PER®) and supported by educational grants from Agios Pharmaceuticals, Inc.; Astex Pharmaceuticals, Inc.; Bristol Myers Squibb; Gilead Sciences, Inc.; Novartis Pharmaceuticals Corporation; Taiho Oncology, Inc.; and Takeda Oncology.

Chair: Guillermo Garcia-Manero, MD, The University of Texas MD Anderson Cancer Center, Department of Leukemia, Houston, TX

Speakers: Ayalew Tefferi, MD, Mayo Clinic, Rochester, MN
           Valeria Santini, AOU Careggi-University of Florence, Firenze, Italy
           Ruben Mesa, MD, UT Health San Antonio Cancer Center, San Antonio, TX

Contact: Dayna Kleinstein
Email: info@gotoper.com
<table>
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<tr>
<th>Leveraging Clinical Data and Trials to Inform Treatment for Patients with GvHD: An Expert Case-Based Discussion</th>
<th>State-of-the-Art Care in Relapsed/Refractory Multiple Myeloma: Novel Targets, Combinations, and Treatment Approaches</th>
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| **Chair:**  
James L. Ferrara, MD, Icahn School of Medicine, New York, NY | **Chair:**  
Maria-Victoria Mateos, MD, PhD, University Hospital of Salamanca, Salamanca, Spain |
| Contact: Dayna Kleinsteins  
Email: info@gotoper.com | Contact: Dayna Kleinsteins  
Email: info@gotoper.com |
### PRODUCT THEATERS

*Product Theaters as of October 21, 2020. Check the mobile app for an updated list of Product Theaters.*

Product Theaters feature exhibitor presentations on new research findings and products. The Product Theater sessions offered at the times listed below will be solely promotional in nature; therefore, continuing medical education credits will not be offered.

All times are in Pacific time. Duplication/recording is prohibited.

<table>
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| **Sponsored by Bristol Myers Squibb**  
**A New Treatment Option for Patients with Acute Myeloid Leukemia**  
Saturday 11:00 a.m. – 12:00 p.m.  
Speaker: **Michelle Little, PhD, Bristol Myers Squibb** |
| **Sponsored by Genentech**  
**POLIVY+BR: Advance the Possibilities in R/R DLBCL, NOS, After at Least 2 Prior Therapies**  
Saturday 11:00 a.m. – 12:00 p.m.  
Speaker: **Lisa Musick, PharmD, BCPS, Genentech** |
| **Sponsored by GSK**  
**Introducing BLENREP (belantamab mafodotin-blmf) for Injection, for Intravenous Use**  
Saturday 11:00 a.m. – 12:00 p.m.  
Speaker: **Antonio Palumbo, MD, GSK** |
| **Sponsored by Pfizer**  
**A Discussion of Efficacy and Safety on a Treatment Option for Adults With Relapsed or Refractory (R/R) Acute Lymphoblastic Leukemia (ALL)**  
Saturday 11:00 a.m. – 12:00 p.m.  
Speaker: **Richa Shah, PharmD, Pfizer** |
| **Sponsored by Sanofi Genzyme**  
**Advances in the Treatment of Cold Agglutinin Disease**  
Saturday 11:00 a.m. – 12:00 p.m.  
Speaker: **Melitza Iglesias, MD, Sanofi Genzyme** |
| **Sponsored by Thermo Fisher Scientific**  
**NGS Solutions That Help Simplify Your Journey to Answers in Hemato-oncology Research**  
Saturday 11:00 a.m. – 12:00 p.m.  
Speaker: **Amy Carroll, PhD, Thermo Fisher Scientific** |
### Sponsored by Astellas Pharma US, Inc.

**A Targeted Therapeutic Approach for Relapsed or Refractory FLT3m+ AML Patients**

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<td>Sunday</td>
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**Speaker:**
Ramon V. Tiu, MD, Astellas Pharma, US, Inc.

### Sponsored by Bristol Myers Squibb

**Bristol Myers Squibb Product Theater**

**A Treatment Option for Adult Patients With Newly Diagnosed CP Ph+ CML or Patients With CML Resistant/Intolerant to Prior TKI Therapy**

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**Speaker:**
Mecide Gharibo, MD, Bristol-Myers Squibb

### Sponsored by Incyte Corporation

**Review of Efficacy and Safety of Monjuvi (tafasitamab-cxix) : FDA-Approved Monoclonal Antibody in Combination with Lenalidomide for Adult Patients with R/R DLBCL Who Have Received at Least One Prior Therapy**

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**Speaker:**
Susan Snodgrass, MD, Incyte Corporation

### Sponsored by Janssen Biotech, Inc.

**Redefining Approaches in Early-Line Multiple Myeloma Treatment**

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**Speaker:**
Kathleen Gray, PhD, Janssen Biotech, Inc.

### Sponsored by Novartis Pharmaceuticals

**Developing the Future of CAR-T Cell Therapy Today**

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**Speakers:**
Amir Hefni, PhD, Novartis
Carolyn Barth, MD, Novartis

### Sponsored by Pfizer

**An Anti-CD38 Directed Antibody for the Treatment for Appropriate Patients with Relapsed Refractory Multiple Myeloma**

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<th>Day</th>
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<td>Sunday</td>
<td>11:00 a.m. – 12:00 p.m.</td>
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**Speaker:**
Jasmeet Anand, PharmD, Pfizer

### Sponsored by Sanofi Genzyme

**An Anti-CD38 Directed Antibody for the Treatment for Appropriate Patients with Relapsed Refractory Multiple Myeloma**

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**Speaker:**
Erin Singh, PhD, Sanofi Genzyme
Sponsored by Abbvie
Exploring Outcomes With Fixed-Duration Treatment in CLL and New Evidence in First-Line AML: Pivotal Clinical Trial Data That Supports Treatment Decisions and Patient Care
Monday 10:30 a.m. – 11:30 a.m.
Speaker: R. Frank Cornell, MD, MS, Abbvie

Sponsored by Adaptive Biotechnologies
clonoSEQ and the Future of MRD
Monday 10:30 a.m. – 11:30 a.m.
Speaker: Lanny Kirsch, MD, Adaptive Biotechnologies

Sponsored by Alexion Pharmaceuticals
PNH: Key Clinical Considerations for a Terminal Complement-Mediated Disease
Monday 10:30 a.m. – 11:30 a.m.
Speaker: Anita Hill, MD, PhD, Alexion Pharmaceuticals, Inc.

Sponsored by AstraZeneca
Scientific Exploration of Novel Targets for AML, MM, and NHL: A Glimpse into Areas of Research and Development
Monday 10:30 a.m. – 11:30 a.m.
Speaker: Katharina Modelska, MD, PhD, AstraZeneca

Sponsored by Genmab
Epcoritamab, a Novel Subcutaneous Bi-Specific CD3xCD20 Antibody for the Treatment of Patients with B-NHL: From Bench to Bedside and Beyond
Monday 10:30 a.m. – 11:30 a.m.
Speaker: Tahamtan Ahmadi, MD, PhD, Genmab

Sponsored by Novo Nordisk
Trust the Experience of a rFVIIa Product Used for a Wide Range of Indications
Monday 10:30 a.m. – 11:30 a.m.
Speaker: Stephanie Seremetis, MD, Novo Nordisk
COMPANY FOCUS ON DISEASE POSTERS

Company Focus on Disease Posters as of October 21, 2020.

More events to be added!
Check the mobile app and online for the latest schedule.

Company Focus on Disease Posters are curated groups of poster presentations, selected by the hosting company, that focus on a specific disease area. Differentiated from the ASH Poster Walk sessions, which are curated by ASH working groups of volunteer hematologists, these poster sessions are not CME-accredited. These new sessions will include a viewing of up to six pre-selected poster presentations and a moderated discussion between a company representative and presenters.

All times are in Pacific time. Duplication/recording is prohibited.

AstraZeneca’s Focus on B-Cell Malignancy Posters (non-CME)

Wednesday, Dec 9 8:00 a.m. – 9:00 a.m.

Moderators:
CARLOS DOTTI, MD, Head of Hematology—Global Medical Affairs, AstraZeneca
PAULO MIRANDA, MD, Senior Global Medical Affairs Lead—Hematology, AstraZeneca
EXHIBITORS

Participating Exhibitors as of October 23, 2020

Acceleron Pharma
http://www.acceleronpharma.com
Acceleron is dedicated to the discovery, development, and commercialization of medicines. Together with our global collaboration partner, Bristol Myers Squibb, we are pioneering the development of therapies in hematology/oncology.

Actinium Pharmaceuticals
https://www.actiniumpharma.com
Actinium Pharmaceuticals Inc. is a clinical stage biotech focused on improving patient access and outcomes to cellular therapies such as BMT and CAR-T with its proprietary targeted conditioning technology. Actinium is the only company with a late stage, multi-disease, multi-target pipeline focused on targeted conditioning. Its technology is enabled by Antibody Radio-Conjugates that combine the targeting ability of monoclonal antibodies with the cell killing ability of radioisotopes.

Adaptive Biotechnologies Corporation
http://www.adaptivebiotech.com
Adaptive Biotechnologies is a commercial-stage biotech company focused on harnessing the inherent biology of the adaptive immune system to transform the diagnosis and treatment of disease. Our proprietary immune medicine platform reveals and translates the massive genetics of the adaptive immune system with scale, precision and speed. Adaptive's goal is to develop and commercialize immune-driven diagnostics and therapeutics tailored to each individual patient.

ADC Therapeutics
https://www.adctherapeutics.com
ADC Therapeutics is a clinical-stage oncology biotechnology company on a mission to bring unique, targeted therapies and hope to patients and their families. The company is advancing next-generation antibody drug conjugates (ADCs) with highly potent and targeted pyrrolobenzodiazepine (PBD) dimer technology. These PBD-based ADCs are expected to provide a novel way to treat hematologic cancers and solid tumors, address significant unmet medical needs, and improve patients’ lives.

Agios Pharmaceuticals
http://www.agios.com
Agios is focused on discovering and developing novel investigational medicines to treat malignant hematology, solid tumors and rare genetic diseases through scientific leadership in the field of cellular metabolism. In addition to an active research and discovery pipeline across these three therapeutic areas, Agios has two approved oncology precision medicines and multiple first-in-class investigational therapies in clinical and/or preclinical development.

Alexion Pharmaceuticals
https://www.alexion.com
Alexion is a global biopharmaceutical company with the mission of transforming the lives of people affected by rare diseases by continuously innovating and creating meaningful value in all that we do. Headquartered in Boston, Massachusetts, Alexion has offices around the globe and serves patients in more than 50 countries.

Allogene Therapeutics, Inc.
https://www.allogene.com
Allogene Therapeutics, headquartered in South San Francisco, is a clinical-stage biotechnology company pioneering the development of allogeneic chimeric antigen receptor T cell (AlloCAR T™) therapies for cancer. Led by a management team with extensive experience in cell therapy, Allogene is developing a pipeline of “off-the-shelf” CAR T cell therapy candidates with the goal of delivering readily available cell therapy faster, more reliably and at greater scale to more patients.

American Society of Hematology
http://www.hematology.org
The Society’s mission is to further the understanding, diagnosis, treatment, and prevention of disorders affecting the blood, bone marrow, and the immunologic, hemostatic and vascular systems, by promoting research, clinical care, education, training, and advocacy in hematology.
American Society of Pediatric Hematology/Oncology  
http://www.aspho.org

The American Society of Pediatric Hematology/Oncology (ASPHO) is the medical society of pediatric hematology/oncology subspecialists and other healthcare professionals dedicated to promoting the optimal care of children, adolescents and young adults with blood disorders and cancer. Founded in 1981, ASPHO sponsors educational and professional development programs, promotes discovery, conducts advocacy, advances professional practice and supports partnerships to further its goals.

Amgen  
http://www.amgenoncology.com

Amgen is committed to unlocking the potential of biology for patients suffering from serious illnesses by discovering, developing, manufacturing and delivering innovative human therapeutics. A biotechnology pioneer since 1980, Amgen has reached millions of patients around the world and is developing a pipeline of medicines with breakaway potential.

Apellis Pharmaceuticals  
https://www.apellis.com

Apellis Pharmaceuticals, Inc. is a global biopharmaceutical company that is committed to leveraging courageous science, creativity, and compassion to deliver life-changing therapies. Leaders in targeted C3 therapies, we aim to develop best-in-class and first-in-class therapies for a broad range of debilitating diseases that are driven by uncontrolled or excessive activation of the complement cascade, including those within hematology, ophthalmology, and nephrology. For more information, please visit our website.

Aplastic Anemia and MDS International Foundation, Inc.  
http://www.aamds.org

The Aplastic Anemia and MDS International Foundation (AAMDSIF) is the world’s leading non-profit health organization dedicated to supporting patients and their families who are living with aplastic anemia, myelodysplastic syndromes (MDS), paroxysmal nocturnal hemoglobinuria (PNH) and related bone marrow failure diseases. Founded in 1983, AAMDSIF provides patient education resources, professional education programs, research grants and advocacy for bone marrow failure disease research funding.

ASCO  
https://www.asco.org

The American Society of Clinical Oncology and the Association for Clinical Oncology represent nearly 45,000 oncology professionals in every cancer subspecialty who care for people living with cancer. Through research, education, and promotion of the highest-quality and equitable patient care, members work to conquer cancer and create a world where cancer is prevented or cured, and every survivor is healthy. Learn more about how we provide the right information, right when you need it.

ASH Research Collaborative  
http://www.ashrc.org

The ASH Research Collaborative (ASH RC) is a non-profit organization established by the American Society of Hematology in 2018 to foster collaborative partnerships that accelerate progress in hematology, with the goal of improving the lives of people affected by blood diseases. The foundation of the ASH RC is its Data Hub and Clinical Trials Network. The Data Hub is a technology platform that facilitates the exchange of information by aggregating research-grade data on hematologic diseases. As a major initiative within the ASH RC, the Data Hub aims to create the largest shared information resource within the global hematology community. The Sickle Cell Disease Clinical Trials Network (SCD CTN), designed to accelerate the development and evaluation of therapies in a large proportion of the United States population affected by SCD. Through the Data Hub, SCD CTN, and projects still to come, the ASH RC will transform research and practice in malignant and nonmalignant hematologic diseases throughout the world, for the benefit of patients and the hematology community.

Astellas Pharma US, Inc.  
https://www.astellasoncology.com

Astellas Oncology is committed to elevating the standard of cancer care. We focus on developing innovative, targeted therapies for hard-to-treat cancers with limited treatment options, which is where we see the greatest opportunity to help people living with cancer.
Astex Pharmaceuticals, Inc., a member of the Ostuka Group

https://www.astx.com

Astex Pharmaceuticals, Inc. is committed to the fight against cancer. Astex is developing a proprietary pipeline of novel therapies for the treatment of hematologic malignancies and solid tumors. These include the oral hypomethylating agent decitabine and cedazuridine (ASTX727), for the treatment of myelodysplastic syndromes and acute myeloid leukemia; and tolinal pant (ASTX660) for the treatment of T-Cell lymphomas. Astex is a member of the Otsuka group of companies, which includes Taiho Pharmaceutical and Taiho Oncology. Subject to regulatory approvals, Astex’s products will be commercialized in the US and Canada by Taiho subsidiaries, and in the rest of the world by Otsuka subsidiaries.

BeiGene

http://www.beigene.com

BeiGene is a global, commercial-stage biotechnology company focused on discovering, developing, manufacturing, and commercializing innovative medicines to improve treatment outcomes and access for patients worldwide. Our 4,200+ employees in China, the United States, Australia, Europe, and elsewhere are committed to expediting the development of a diverse pipeline of novel therapeutics. We currently market two internally discovered oncology products: BTK inhibitor BRUKINSA® (zanubrutinib) in the United States and China, and anti-PD-1 antibody tislelizumab in China. We also market or plan to market in China additional oncology products licensed from Amgen Inc., Celgene Logistics Sàrl, a Bristol Myers Squibb (BMS) company, and EUSA Pharma. To learn more about BeiGene, please visit www.beigene.com.

AstraZeneca

http://www.astrazeneca-us.com

AstraZeneca is a global, science-led biopharmaceutical company that focuses on the discovery, development and commercialization of prescription medicines, primarily for the treatment of diseases in three therapy areas – Oncology, Cardiovascular, Renal & Metabolism and Respiratory. For more information, please visit www.astrazeneca-us.com.

Bayer

https://www.bayer.com

Bayer is a global enterprise with core competencies in the life science fields of health care and nutrition. Its products and services are designed to benefit people by supporting efforts to overcome the major challenges presented by a growing and aging global population. Bayer is committed to the principles of sustainable development, and the Bayer brand stands for trust, reliability and quality throughout the world.

BioMarin Pharmaceutical Inc.

http://www.biomarin.com

BioMarin is a world leader in developing and commercializing innovative therapies for rare diseases driven by genetic causes. With a 20-year history, BioMarin remains steadfast to its original mission — to bring new treatments to market that will make a big impact on small patient populations. These conditions are often inherited, difficult to diagnose, progressively debilitating, have few, if any, treatment options, and are usually ignored. Visit www.biomarin.com to learn more.

bluebird bio

http://www.bluebirdbio.com

At bluebird bio we’re all-in on building integrated product platforms that encompass gene therapy, cancer immunotherapy and (megaTAL-enabled) gene editing. We believe these approaches will provide the potential to treat a broad range of serious conditions and deliver the chance for people to live fully. Because we want to bring the transformative effects of gene therapy to as many people as possible, we’re pushing ourselves to fly higher than ever before with a bold vision for 2022 and beyond: 4 products in-market, 5 or more clinical programs, and 1-2 investigational new drugs per year. Our goal is to help the people we serve by re-coding the science, the system — and even the status quo — for life.
Blueprint Medicines
https://www.blueprintmedicines.com
Blueprint Medicines is a precision therapy company striving to improve human health. With a focus on genomically defined cancers, rare diseases and cancer immunotherapy, we are developing transformational medicines rooted in our leading expertise in protein kinases, which are proven drivers of disease. We have two approved precision therapies and are currently advancing multiple investigational medicines in clinical development, along with a number of research programs.

BMS/Pfizer
Bristol Myers Squibb and Pfizer are partners in a worldwide collaboration. This global alliance combines both Bristol Myers Squibb's and Pfizer's long-standing strengths in drug development and commercialization.

BostonGene
https://www.bostongene.com
BostonGene Corporation is a biomedical software company committed to defining optimal precision medicine-based therapies for cancer patients. BostonGene's unique solution performs sophisticated analytics to aid clinicians in their evaluation of viable treatment options for each patient's individual genetics, tumor and tumor microenvironment, clinical characteristics and disease profile.

Bristol Myers Squibb
http://www.bms.com
Bristol Myers Squibb is a leading global biopharma company focused on discovering, developing and delivering innovative medicines for patients with serious diseases in areas including oncology, hematology, immunology, cardiovascular and neuroscience. Our employees work every day to transform patients' lives through science.

Chiesi Global Rare Diseases
https://www.chiesiglobalrarediseases.com
Chiesi Global Rare Diseases (GRD) is a business unit of the Chiesi Group, a global company with 85 years of experience in the pharmaceutical industry and operating in 29 countries. Founded in February 2020 and based in Boston, Massachusetts, Chiesi GRD works in collaboration with Chiesi Group to harness the full resources and capabilities of our global network to bring innovative new treatment options to people living with rare diseases. The unit is also a dedicated partner supporting the work of global leaders in patient advocacy, research, and patient care. Chiesi GRD is a reflection of Chiesi Group's many decades of experience in drug development and our commitment to putting the needs of patients at the forefront of everything we do.

CIBMTR
http://www.cibmtr.org
The CIBMTR facilitates critical cellular therapy research through a clinical database with >500,000 patients from >300 centers worldwide and a biospecimen repository with >150,000 samples. Collaborate with us on one of our >200 current studies. Visit cibmtr.org.

City of Hope Comprehensive Cancer Center
http://cityofhope.org
City of Hope is a leading research and treatment center for cancer, diabetes and other life-threatening diseases. Designated as a comprehensive cancer center, the highest recognition bestowed by the National Cancer Institute, City of Hope is also a founding member of the National Comprehensive Cancer Network, with research and treatment protocols that advance care throughout the nation.

CRISPR Therapeutics/Vertex Pharmaceuticals
https://www.vrtx.com
CRISPR Therapeutics and Vertex Pharmaceuticals entered into a strategic research collaboration in 2015 focused on the use of CRISPR/Cas9 gene editing technology to discover and develop potential new treatments aimed at the underlying genetic causes of human disease. The first candidate medicine to emerge from the partnership is in clinical trials for the treatment of transfusion-dependent beta thalassemia and severe sickle cell disease.

Daiichi Sankyo
https://www.daiichisankyo.com
With more than 100 years of scientific expertise and a presence in more than 20 countries, Daiichi Sankyo and its 15,000 employees around the world draw upon a rich legacy of innovation and a robust pipeline of promising new medicines to help people.
**Dova Pharmaceuticals**

*https://dova.com*

Dova is a pharmaceutical company focused on acquiring, developing and commercializing drug candidates for diseases where there is a high unmet medical need. With a nimble approach and a team of bright minds aglow with passion, we’re dedicated to bringing brilliant medicine to market.

**Elsevier**

*http://www.elsevier.com/events/ASH*

Elsevier is a world-leader in medical publishing and a provider of information solutions that enhance the performance of science, health, and technology professionals, empowering them to make better decisions and deliver better care.

**Epizyme, Inc.**

*http://www.epizyme.com*

Epizyme, Inc. is an integrated biopharmaceutical company committed to rewriting treatment for cancer and other diseases through transformative epigenetic medicines. Epizyme has one commercial oncology product and is exploring the treatment potential of this therapy in investigational clinical trials focused on other conditions. By focusing on the genetic drivers of disease, Epizyme works to match new medicines with the patients who need them.

**epocrates**

*http://www.athenahealth.com*

epocrates, an athenahealth company, is the #1 medical app among US physicians. Over 1 million healthcare professionals trust epocrates to help them make more confident, efficient decisions at the point of care. Clinicians rely on epocrates drug monographs, interaction check, medical calculators & many other features throughout their daily workflows.

**European Hematology Association**

*http://www.ehaweb.org*

The European Hematology Association (EHA) is a non-profit association that represents European medical professionals with an active interest in hematology. Founded in 1992 to promote excellence in patient care, research and education in hematology, EHA has over 5000 active members from more than 100 countries. Its growing number of initiatives aim towards a cure for all blood disorders.

**EUSA Pharma**

*https://eusapharma.com*

EUSA Pharma is a dynamic, global biopharmaceutical company focused on oncology and rare disease, continuously striving to confront gaps in patient care. Our ambition drives us to provide medical treatments that support real change to improve lives wherever they are needed in the world. As a young, specialty biopharmaceutical company, EUSA Pharma is committed to delivering solutions that can have a meaningful effect on life, helping patients across a range of therapeutic areas.

**Forma Therapeutics**

*https://www.formatherapeutics.com*

Forma Therapeutics is a clinical-stage biopharmaceutical company focused on the research, development and commercialization of novel therapeutics to transform the lives of patients with rare hematologic diseases and cancers. Our work has generated a broad portfolio of programs with the potential to provide profound patient benefit.

**Foundation Medicine**

*https://www.foundationmedicine.com*

Foundation Medicine is a molecular information company dedicated to a transformation in cancer care in which treatment is informed by a deep understanding of the genomic changes that contribute to each patient’s unique cancer. The company offers a full suite of comprehensive genomic profiling assays to identify the molecular alterations in a patient’s cancer and match them with relevant targeted therapies, immunotherapies and clinical trials.

**Gamida Cell Ltd.**

*https://www.gamida-cell.com*

Gamida Cell is an advanced cell therapy company committed to cures for patients with blood cancers and serious blood diseases. We harness our cell-expansion platform to create therapies with the potential to redefine standards of care in areas of serious medical need. For additional information, please visit www.gamida-cell.com.

**Genentech**

*http://www.gene.com*

For more than 40 years, we’ve been following the science, seeking solutions to unmet medical needs. As a proud member of the Roche Group, we make medicines to treat patients with serious medical conditions. We are headquartered in South San Francisco, California.
Genmab
https://www.genmab.com
Founded in 1999 in Copenhagen, Denmark, Genmab is a dual-listed, international biotechnology company specializing in the creation and development of differentiated antibody therapeutics for the treatment of cancer. With a deep knowledge of the power of the human immune system and a proven track record for inventing and engineering novel therapeutic antibodies, we aim to tackle and overcome the challenges in oncology drug development. In our product discovery, we connect our proprietary antibody platform technologies with our robust target and disease biology knowledge to create novel and differentiated products. Our differentiated pipeline stands as proof of our ability to identify and address the areas of unmet treatment need and includes three Genmab-created antibodies, out-licensed and developed by partners, that were approved by the U.S. Food and Drug Administration with breakthrough designations—Daratumumab, Ofatumumab and Teprotumumab.

Global Blood Therapeutics
http://www.globalbloodtx.com
GBT is a biopharmaceutical company determined to discover, develop and deliver innovative treatments that provide hope to underserved patient communities. GBT is developing two therapies for the potential treatment of sickle cell disease, including its late-stage product candidate, voxelotor, as an oral, once-daily therapy. To learn more, please visit www.gbt.com and follow the company on Twitter @GBT_news.

GSK
http://www.gsk.com
GSK is focused on maximizing patient survival through transformational medicines. GSK's pipeline is focused on immuno-oncology, cell therapy, cancer epigenetics and synthetic lethality. Our goal is to achieve a sustainable flow of new treatments based on a diversified portfolio of investigational medicines utilizing modalities such as small molecules, antibodies, antibody drug conjugates and cells, either alone or in combination.

Hemophilia Federation of America
https://www.hemophiliafed.org
HFA is a national non-profit organization serving the needs of the bleeding disorders community. Through programming and listening to their needs, we work to advance patients’ rights and access to care, be a resource to patients and their families, and to provide educational opportunities to give patients the tools they need to advocate for themselves. We aim to improve the care and quality of life for those with bleeding disorders by removing barriers to diagnosis, treatment, and cure.

Incyte Corporation
http://www.incyte.com
Incyte is a Wilmington, Delaware-based, global biopharmaceutical company focused on finding solutions for serious unmet medical needs through the discovery, development and commercialization of proprietary therapeutics. For additional information on Incyte, please visit Incyte.com and follow @Incyte.

Innate Pharma
https://www.innate-pharma.com
Innate Pharma S.A. is a commercial stage, oncology-focused biotech company dedicated to improving treatment and clinical outcomes for patients through therapeutic antibodies that harness the immune system to fight cancer. Learn more about Innate Pharma at www.innate-pharma.com.

Intrinsic LifeSciences
http://www.intrinsiclifesciences.com
Intrinsic LifeSciences LLC provides superior, innovative & patent-protected research test kits and certified diagnostics & clinical research CLIA services for hepcidin and erythroferrone (ERFE), the key indicators of anemia, inflammation and pregnancy disorders. Our CAP accredited clinical lab, IntrinsicDx™, offers the Intrinsic Hepcidin IDx™ Test service. We also provide RUO immunoassay testing for other related biomarkers. To learn more visit www.intrinsicdx.com, www.intrinsiclifesciences.com.
Invivoscribe
https://invivoscribe.com
Invivoscribe® is a global leader in hemato-oncology & CDx, providing innovative solutions for myeloid & lymphoid diseases for over 25 years. We provide ISO 13485 compliant development, cGMP manufacturing, regulatory expertise, commercialization & clinical trial services. Our ISO 15189 laboratories in the US, Europe & Asia offer standardized testing focused on actionable biomarkers & gene panels which support patient stratification, therapeutic decisions, trial enrollment & MRD monitoring.

Janssen Biotech Inc.
http://www.janssen.com
At Janssen, we’re creating a future where disease is a thing of the past. We’re the Pharmaceutical Companies of Johnson & Johnson, working tirelessly to make that future a reality for patients everywhere by fighting sickness with science, improving access with ingenuity, and healing hopelessness with heart. We focus on areas of medicine where we can make the biggest difference: Cardiovascular & Metabolism, Immunology, Infectious Diseases & Vaccines, Neuroscience, Oncology, and Pulmonary Hypertension.

Jazz Pharmaceuticals, Inc.
http://www.jazzpharma.com
Jazz Pharmaceuticals plc (Nasdaq: JAZZ), a global biopharmaceutical company, is dedicated to developing life-changing medicines for people with limited or no options, so they can live their lives more fully and redefine what is possible. As a leader in sleep medicine and with a growing hematology/oncology portfolio, Jazz has a diverse portfolio of products and product candidates in development, and is focused on transforming biopharmaceutical discoveries into novel medicines.

Kadmon Pharmaceuticals LLC
https://www.kadmon.com
Kadmon is a late clinical-stage clinical biopharmaceutical company discovering and developing transformative therapies for unmet medical needs. Kadmon’s lead product candidate, belumosudil, is an orally administered selective inhibitor of ROCK 2 in development for the treatment of cGVHD and other immune diseases. In September of 2020, Kadmon submitted a New Drug Application to the U.S. Food and Drug Administration (FDA) with belumosudil for the treatment of patients with cGVHD.

Kite, A Gilead Company
http://www.kitepharma.com
Kite, a Gilead Company, is a biopharmaceutical company based in Santa Monica, California. Kite is engaged in the development of innovative cancer immunotherapies. The company is focused on chimeric antigen receptor and T cell receptor engineered cell therapies. For more information on Kite, please visit www.kitepharma.com.

Kyowa Kirin, Inc.
http://www.kyowa-kirin.com
Kyowa Kirin is a global specialty pharmaceutical company with US Headquarters based in Bedminster, NJ. The company is focused primarily on developing and commercializing biopharmaceuticals that help improve the health and well-being of people through innovative and state-of-the-art technologies in various therapeutic areas including oncology, neurology, nephrology, and immunology. For additional information, you can visit us at www.kyowa-kirin.com.

Legend Biotech
https://www.legendbiotech.com
Legend Biotech is a global clinical-stage biopharmaceutical company engaged in the discovery and development of novel cell therapies for oncology and other indications. Our team of over 700 employees across the United States, China and Europe, along with our differentiated technology, global development, and manufacturing strategies and expertise, provide us with the strong potential to discover, develop, and manufacture novel cell therapies for patients in need.

Lilly
http://www.lillyoncologypipeline.com
For more than 50 years, Lilly has been dedicated to delivering life-changing medicines and support to people living with cancer and those who care for them. Lilly is determined to build on this heritage and continue making life better for all those affected by cancer around the world. To learn more about Lilly’s commitment to people with cancer, please visit www.LillyOncology.com.
Mallinckrodt Pharmaceuticals
http://www.mallinckrodt.com
Mallinckrodt is focused on providing innovative treatment platforms that harness the power of each individual patient’s immune system to fight disease. Our therapeutic platforms, including the latest generation THERAKOS® CELLEX® Photopheresis System, are the world’s only approved, fully-integrated systems for administering extracorporeal photopheresis. For more information about the CELLEX® System, please visit www.therakos.com.

MD Anderson Cancer Center
http://www.mdanderson.org
MD Anderson is renowned for its cutting-edge research, exceptional patient care, innovative prevention programs and its commitment to training future generations. We’ve pioneered new treatment approaches for blood cancers and disorders, including CAR T cell therapy, immunotherapies and targeted therapies that are extending patients’ lives without compromising their quality of life. MD Anderson is ranked No. 1 in cancer care by U.S. News & World Report.

Med Learning Group
https://www.medlearninggroup.com
This virtual reality room experience explores the management of patients with either previously untreated or relapsed/refractory acute myeloid leukemia (AML) or chronic lymphocytic leukemia (CLL) focusing on newer targeted therapies. This VR experience uses animations that are designed to aid clinicians in their daily practice regarding the mechanisms of action and genomic targets of these therapies to provide better care for patients with these hematologic conditions.

Medidata, a Dassault Systèmes company
https://www.medidata.com
Medidata, a Dassault Systèmes company, leads the digital transformation of life sciences. Acorn AI is built upon Medidata's core platform, including 20,000 trials and 6 million patients, and features the industry’s largest clinical trial data repository. Acorn AI solutions include Synthetic Control Arm™, Intelligent Trials, Rave Imaging, and Rave Omics that optimize the design and accelerate the execution of clinical trials.

Miltenyi Biotec
http://www.miltenyibiotec.com
Miltenyi Biotec provides products that advance biomedical research and cellular therapy. Our innovative tools support research from basic research to translational research to clinical application. Our 30 years of expertise includes immunology, stem cell biology, neuroscience, and cancer. Miltenyi Biotec has 3,000 employees in 28 countries.

Mission Bio
http://www.missionbio.com
Mission Bio’s Tapestri Platform is the industry’s first and only single-cell multi-omics platform, enabling genotype and phenotype from the same cell and precise detection of heterogeneity underlying disease progression, treatment response, resistance, and relapse. Application areas include blood cancers, solid tumor profiling, and cell and gene therapy. Spun out of research at the University of California, San Francisco, Mission Bio is headquartered in South San Francisco, California.

Moffitt Cancer Center
http://www.Moffitt.org
Moffitt is dedicated to one lifesaving mission: to contribute to the prevention and cure of cancer. The Tampa-based facility is one of only 51 National Cancer Institute-designated Comprehensive Cancer Centers, a distinction that recognizes Moffitt’s scientific excellence, multidisciplinary research, and robust training and education. Moffitt is the No. 11 cancer hospital and has been nationally ranked by U.S. News & World Report since 1999.

MorphoSys
http://www.morphosysevents.com
MorphoSys is a commercial-stage biopharmaceutical company dedicated to the discovery and development of exceptional, innovative therapies for patients suffering from serious diseases, with a focus is on cancer. Based on its leading expertise in antibody, protein and peptide technologies, MorphoSys, together with its partners, has developed and contributed to the development of more than 100 product candidates, of which 27 are currently in clinical development.
EXHIBITORS

MPN Research Foundation
http://www.mpnresearchfoundation.org
The MPN Research Foundation (formerly MPD Foundation) funds innovative, accountable research that produces results for patients with polycythemia vera, essential thrombocythemia and myelofibrosis. We also produce educational symposia, a free informative brochure in English and Spanish, and a newsletter - MPN Update.

National Institute of Diabetes Digestive and Kidney Diseases
https://www.niddk.nih.gov/about-niddk/research-areas/hematologic-diseases
The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) conducts and supports research on nonmalignant blood diseases. The multi-faceted hematology research program focuses on understanding basic cellular and molecular mechanisms that underlie the production and function of blood cells in health and disease. It supports researchers at all stages of a career path. NIDDK Program Staff will be available to connect with you and discuss your plans.

NeoGenomics Laboratories
http://www.neogenomics.com
NeoGenomics specializes in cancer genetics testing and information services. We provide one of the most comprehensive oncology-focused testing menus in the world for physicians to help them diagnose and treat cancer with >600 tests available in-house including extensive molecular profiling in myeloid disorders and leukemias, cfDNA/RNA assays for biopsy-free evaluation of hematologic cancers, and >20 HemeFISH™ panels. The company's Pharma Services Division serves pharmaceutical clients in clinical trials and drug development to meet program objectives and delivery from biomarker discovery through CDx validation and commercialization. Collaborations are welcome.

NMDP/Be The Match
https://www.BeTheMatchClinical.org
For patients diagnosed with leukemia, lymphoma, and other life-threatening diseases, a hematopoietic cell transplant (bone marrow or cord blood transplant) may be their best or only hope for a cure. The National Marrow Donor Program®/Be The Match® facilitates these transplants, conducts research, provides support and resources for patients, and education for physicians. Partnering with our global network, we will never give up in working to save more lives. For more information, please visit BeTheMatchClinical.org.

Novartis Pharmaceutical
http://www.novartisoncology.com
Novartis is reimagining medicine to improve and extend people’s lives. As a leading global medicines company, we use innovative science and digital technologies to create transformative treatments in areas of great medical need. In our quest to find new medicines, we consistently rank among the world’s top companies investing in research and development. Novartis products reach more than 750 million people globally and we are finding innovative ways to expand access to our latest treatments. About 109,000 people of more than 140 nationalities work at Novartis around the world.

Novo Nordisk Commercial Exhibit
http://www.novonordisk-us.com
At Novo Nordisk, with each new treatment we develop, and every new patient we meet, we are expanding our commitment to helping people live better lives. Together with patients and the people who care for them, we are working toward bigger goals and visions for our world. Find a Novo Nordisk representative in your area by using the “Find a Rep” or “Contact Us” pages at https://www.NovoSevenRTPro.com, https://www.RebinynPro.com, or https://www.EsperoctPro.com.

Novo Nordisk – Medical
https://www.novonordisk-us.com
Novo Nordisk, a global healthcare company, has been committed to discovering and developing innovative medicines to help people living with diabetes lead longer, healthier lives for 95 years. This heritage has given us experience and capabilities that also enable us to help people defeat other serious diseases including obesity, hemophilia and growth disorders. We remain steadfast in our conviction that the formula for success is to stay focused, think long term and do business in a financially, socially and environmentally responsible way. With U.S. headquarters in New Jersey and production and research facilities in six states, Novo Nordisk employs nearly 6,000 people throughout the country. For more information, visit novonordisk.us

Oncopeptides
http://www.oncopeptides.com
Oncopeptides is a pharmaceutical company focused on the development of targeted therapies for difficult-to-treat hematological diseases. In 2000, the Company was formed by some of Sweden’s leading scientists with ties to preeminent oncology research institutions. Oncopeptides’ headquarters is in Stockholm, Sweden with a U.S. headquarters in Boston, Massachusetts. In addition to Boston, Oncopeptides has a footprint in Los Altos, California, another U.S. biotech hub.
**Pfizer**

http://www.pfizer.com/research/therapeutic_areas/oncology

Pfizer Inc.: Breakthroughs that change patients’ lives - At Pfizer, we apply science and our global resources to bring therapies to people that extend and significantly improve their lives. We strive to set the standard for quality, safety and value in the discovery, development and manufacture of health care products, including innovative medicines and vaccines. Every day, Pfizer colleagues work across developed and emerging markets to advance wellness, prevention, treatments and cures that challenge the most feared diseases of our time.

**Pharmacosmos Therapeutics Inc.**

https://www.pharmacosmos.com

Pharmacosmos Therapeutics Inc. is a U.S. specialty pharmaceutical company dedicated to providing patient care through the commercialization of Monoferic® (ferric derisomaltose) injection and through exceptional resources to support this treatment. We are the U.S. affiliate of the Denmark-based Pharmacosmos Group. Please visit us at www.monoferric.com to learn more.

**PharmaEssentia Corporation**

http://www.pharmaessentia.com

PharmaEssentia Corporation is a rapidly growing biopharmaceutical innovator leveraging deep expertise and proven scientific principles to deliver effective new biologics for challenging hematologic diseases. Our near-term focus is on therapies for myeloproliferative neoplasms (MPNs), with one product already approved in Europe and a diversifying pipeline, and we are working to reshape the treatment landscape through active collaboration with the global MPN community. Founded in 2003 by a team of Taiwanese-American executives and renowned scientists, today we are expanding our global presence with operations in the U.S., Japan, China, and Korea, along with a world-class biologics production facility in Taichung.

**Platelet Disorder Support Association**

http://www.pdsa.org

Patient-founded in 1998 to educate and empower immune thrombocytopenia patients, PDSA connects the ITP community with life-altering programs and support. Our comprehensive offering of services also enables clinicians to stay current on ITP protocols, cutting edge research, and therapies being developed worldwide. PDSA collaborates with other patient advocacy groups, researchers, and government agencies to drive public policy, develop new treatments and funds innovative patient-centered research.

**Precision for Medicine**

https://www.precisionformedicine.com

Precision is the first global precision medicine clinical research organization purpose-built to improve the clinical research and development process for new therapeutics. Our novel approach integrates clinical operations excellence, along with laboratory expertise, and advanced data sciences to inform every step. This maximizes our clients’ insight into patient biology, delivers more predictable trial outcomes and accelerates clinical development.

**Regeneron Pharmaceuticals**

https://www.regeneron.com/pipeline

Regeneron is a leading biotechnology company and antibody research pioneer transforming science to medicine for patients with serious diseases. With a robust oncology pipeline of novel classes and combinations, Regeneron is committed to discovering, developing, and delivering innovative therapies to improve the lives of patients with cancer. Visit https://www.regeneron.com/pipeline and check the “oncology” box to view our pipeline and tumor types we are exploring.

**Sanofi Genzyme**

http://www.sanofigenzyme.com

Sanofi Genzyme, the specialty care global business unit of Sanofi, focuses on rare diseases, rare blood disorders, multiple sclerosis, oncology, and immunology. We help people with debilitating and complex conditions that are often difficult to diagnose and treat. Our approach is shaped by our experience developing highly specialized treatments and forging close relationships with physician and patient communities. We are dedicated to discovering and advancing new therapies, providing hope to patients and their families around the world.

**Seagen**

http://www.seagen.com

Seagen Inc. is a global biotechnology company that discovers, develops, and commercializes medicines for cancer. The company has a pipeline of therapies at various stages of preclinical testing, clinical testing, and development. We are leveraging our expertise in antibodies to build a portfolio of proprietary immuno-oncology agents in clinical trials for hematologic malignancies and solid tumors. For more information, visit www.seagen.com.
Servier Pharmaceuticals
https://www.servier.com/en
Servier Pharmaceuticals is a commercial-stage, privately held US company with a passion for innovation on behalf of our patients, their families & caregivers. Starting with oncology, we are committed to building a robust portfolio of treatments for therapeutic areas with unmet need. Launched by Servier Group, a unique global organization operating in more than 150 countries & governed by a non-profit foundation, Servier Pharmaceuticals has the resources and network of an established global pharmaceutical company, while operating with a nimble entrepreneurial spirit. With extensive expertise, global reach and commitment to clinical excellence, Servier Pharmaceuticals is dedicated to bringing the promise of tomorrow to the patients we serve.

Sierra Oncology
https://www.sierraoncology.com
Sierra Oncology is a late stage drug development company advancing momelotinib, a selective and orally-bioavailable JAK1, JAK2 & ACVR1 inhibitor with a differentiated mechanism of action that enables it to potentially address anemia, constitutional symptoms and enlarged spleen. Sierra is currently conducting MOMENTUM, a randomized double-blind Phase 3 clinical trial designed to enroll 180 myelofibrosis patients who are symptomatic, anemic and have been treated previously with a JAK inhibitor.

Sobi, Inc.
https://www.sobi-northamerica.com
Sobi is a specialized international biopharmaceutical company transforming the lives of people with rare diseases. Sobi is providing sustainable access to innovative therapies in the areas of haematology, immunology and specialty indications. Today, Sobi employs approximately 1,300 people across Europe, North America, the Middle East, Russia and North Africa. You can find more information about Sobi at sobi.com.

Society of Immunotherapy of Cancer
http://www.sitcancer.org
The Society for Immunotherapy of Cancer (SITC) is a 501(c)(3) not-for-profit medical professional society of influential research scientists, physician scientists, clinicians, patients, patient advocates, government representatives and industry leaders dedicated to improving cancer patient outcomes by advancing the science and application of cancer immunotherapy. Currently, SITC has more than 3,000 members who represent over 35 medical specialties in 48 countries.

Society of Hematologic Oncology
https://www.sohoonline.org
The purpose of the Society of Hematologic Oncology (SOHO) is to promote worldwide research, education, prevention, clinical studies and optimal patient care in all aspects of hematologic malignancies. SOHO is an international society designed specifically for clinicians, research scientists and related health care professionals. SOHO's mission is to expedite worldwide research and education through the exchange of scientific information.

Spark Therapeutics, Inc.
http://www.sparktx.com
At Spark Therapeutics, we leverage our unique technical and R&D expertise as we strive to bring gene therapies to patients. One of our areas of research is hemophilia A, an inherited bleeding disorder caused by mutations in the F8 gene that encodes coagulation factor VIII. Led by researchers and clinicians with long-standing commitment to the hemophilia community, we recognize the essential need to understand and gain important perspectives from patients, caregivers and leaders in the community.

STEMCELL Technologies
STEMCELL Technologies Inc. is committed to providing specialized cell isolation products, standardized cell culture media and accessory tools for your cell biology research. Driven by science and a passion for quality, STEMCELL supports the advancement of scientific research around the world with our catalog of more than 2000 cell biology research tools. To learn more, visit www.STEMCELL.com.

Stemline Therapeutics
http://www.stemline.com
Stemline Therapeutics is a commercial-stage biopharmaceutical company focused on novel oncology therapeutics. ELZONRISÔ (tagraxofusp), a CD123-directed cytotoxin, is FDA-approved for treatment of adult and pediatric patients, two years and older, with blastic plasmacytoid dendritic cell neoplasm (BPDCN). ELZONRIS is in clinical trials for additional indications including chronic myelomonocytic leukemia (CMMML), myelofibrosis (MF) and acute myeloid leukemia (AML). Pipeline candidates: felezonexor (SL-801; XPO1 inhibitor; Phase 1 in advanced solid tumors), SL-1001 (novel RET kinase inhibitor; IND-enabling studies ongoing), SL-701 (immunotherapeutic; Phase 2 in GBM completed), and SL-901 (novel kinase inhibitor; IND-enabling studies ongoing).
Sumitomo Dainippon Pharma Oncology
https://www.sdp Oncology.com
Sumitomo Dainippon Pharma Oncology, Inc., is a wholly owned subsidiary of Sumitomo Dainippon Pharma Co., Ltd. As a global oncology organization with teams in the U.S. and Japan, SDP Oncology is relentlessly committed to advancing purposeful science by transforming new discoveries into meaningful treatments for patients with cancer. For more information, visit www.sdp oncology.com.

Syndax Pharmaceuticals
https://www.syndax.com
Syndax is determined to realize a future in which people with cancer live longer and better than ever before. Syndax’s pipeline includes SNDX-5613, a highly selective inhibitor of the Menin–MLL binding interaction, in development for the treatment of patients with MLLr and NPM1 acute leukemias, and axatilimab, an investigational monoclonal antibody that blocks the colony stimulating factor 1 (CSF-1) receptor, in development for the treatment of patients with chronic Graft versus Host Disease.

Syneos Health
https://www.Syneoshealth.com
Syneos Health® (Nasdaq:SYNH) is the only fully integrated biopharmaceutical solutions organization. The Company, including a Contract Research Organization (CRO) and Contract Commercial Organization (CCO), is purpose-built to accelerate customer performance to address modern market realities. We bring together approximately 24,000 clinical and commercial minds with the ability to support customers in more than 110 countries. Together we share insights, use the latest technologies, and apply advanced business practices to speed our customers’ delivery of important therapies to patients. To learn more about how we are shortening the distance from lab to life®, visit syneoshealth.com.

Taiho Oncology, Inc. - Medical Affairs
http://www.taihooncology.com
Taiho Oncology, Inc., a subsidiary of Taiho Pharmaceutical Co., Ltd. and Otsuka Holdings Co., Ltd., has established a world class clinical development organization that works urgently to develop innovative cancer treatments and has built a commercial business in the U.S. Taiho Oncology has an oral oncology pipeline consisting of selectively targeted agents. Advanced technology, dedicated researchers, and state of the art facilities are helping us to define the way the world treats cancer. It’s our work; it’s our passion; it’s our legacy.

Takeda
http://www.takedaoncology.com
We endeavor to deliver novel medicines to patients with cancer worldwide through our commitment to science, breakthrough innovation and passion for improving the lives of patients. Our combined legacy in oncology includes a broad range of paradigm-changing therapies for hematologic cancers and solid tumors.

Takeda Hematology
https://www.takeda.com
Takeda Pharmaceutical Company Limited (TSE:4502/NYSE:TAK) is a global, values-based, R&D-driven biopharmaceutical leader headquartered in Japan, committed to bringing Better Health and a Brighter Future to patients by translating science into highly-innovative medicines. Takeda focuses its R&D efforts on four therapeutic areas: Oncology, Gastroenterology (GI), Rare Diseases and Neuroscience. We also make targeted R&D investments in Plasma-Derived Therapies and Vaccines. We are focusing on developing highly innovative medicines that contribute to making a difference in people’s lives by advancing the frontier of new treatment options and leveraging our enhanced collaborative R&D engine and capabilities to create a robust, modality-diverse pipeline. Our employees are committed to improving quality of life for patients and to working with our partners in health care in approximately 80 countries and regions. For more information, visit https://www.takeda.com.

TG Therapeutics, Inc.
http://www.tgtherapeutics.com
TG Therapeutics is focused on developing & delivering medicines for patients with B-cell malignancies. TG has 5 drug candidates in development with ublituximab & umbralisib in pivotal trials for CLL, NHL and MS. Ublituximab is a novel glycoengineered anti-CD20 mAb & umbralisib is an oral, QD, PI3K-delta inhibitor with unique inhibition of CK1-epsilon. In Phase 1 development TG also has an anti-PD-L1 mAb (TG-1501), an oral BTK inhibitor (TG-1701) & an anti-CD47/CD19 bispecific antibody (TG-1801).

The Leukemia & Lymphoma Society
http://www.lls.org
The Leukemia & Lymphoma Society® (www.lls.org) is the global leader in the fight against blood cancer. Since 1949, LLS has invested nearly $1.3 billion in blood cancer research to find cures for leukemia, lymphoma, myeloma and other blood cancers. LLS is the leading source of free blood cancer information and support, and is the voice for all blood cancer patients seeking access to quality, affordable, coordinated care. For help, contact the Information Resource Center at (800) 955-4572.
The MDS Alliance
http://www.mds-alliance.org
The MDS Alliance is an international umbrella organization that aims to ensure patients with MDS, regardless of where they live, have access to the best multi-professional care. We aim to provide member organizations, patients and healthcare teams with the resources and the latest information about MDS, including current treatment options, large international projects, and events of interest to the whole community.

The MDS Foundation, Inc.
https://www.mds-foundation.org
About the MDS Foundation - The MDS Foundation is a global non-profit advocacy organization that for over 25 years has supported patients and their families as well as healthcare providers in the fields of MDS and its related diseases. Vision - Every MDS patient will benefit from our initiatives and research as early as possible. Mission - MDS Foundation supports and educates patients, their communities, and healthcare providers, and contributes to innovative research in the fields of MDS and its related continuum of diseases to better diagnose, control and ultimately cure these diseases.

Thermo Fisher Scientific
http://www.thermofisher.com
Thermo Fisher Scientific is the world leader in serving science. Our mission is to enable our customers to make the world healthier, cleaner and safer. Through our Thermo Scientific, Applied Biosystems, Invitrogen, and Ion Torrent brands, we help customers accelerate innovation and enhance productivity.

Turkish Society of Hematology
http://www.thd.org.tr
The Turkish Society of Hematology (TSH) was founded in 1967. The Society, as the official representative of scientists of hematology in Turkey, boasts a membership of 806 and is one of the most active and oldest societies in the country. TSH has a peer-reviewed international journal “Turkish Journal of Hematology”.

UCB
http://www.ucb.com
UCB is a global biopharmaceutical company focused on the discovery and development of innovative medicines and solutions to transform the lives of people living with severe diseases of the immune system or of the central nervous system. We are inspired by patients. Driven by science. Follow us on Twitter: @UCB_news.

uniQure
http://www.uniqure.com
uniQure is delivering on the promise of gene therapy—single treatments with potentially curative results. We are leveraging our modular and validated technology platform to rapidly advance a pipeline of proprietary and partnered adeno-associated virus (AAV)-based gene therapies to treat patients with severe genetic diseases. We are currently conducting a pivotal phase 3 trial in our lead indication, hemophilia B, and have established preclinical proof-of-concept in Huntington’s disease.

X4 Pharmaceuticals
http://www.x4pharma.com
X4 is a clinical-stage biopharmaceutical company focused on the discovery, development and commercialization of novel therapeutics for the treatment of rare diseases. X4’s pipeline is comprised of first-in-class, oral, small molecule antagonists of chemokine receptor CXCR4, which have the potential to treat a broad range of rare diseases, including primary immunodeficiencies, neutropenia, and certain cancers.
An OPTIMIZED APPROACH to SICKLE CELL DISEASE Care in a New Era of Treatment

Friday, December 4, 2020
7:00 AM – 9:15 AM PT
10:00 AM – 12:15 PM ET
Virtual Satellite Symposium
With LIVE Question & Answer

AGENDA

Sickle Cell Disease in a New Decade: Progress and Persisting Challenges

A Deep Dive Into Available and Emerging Strategies

Putting It All Together – Clinical Cases

What Will SCD Care Look Like in 2030?

LIVE Question and Answer

Questions? Questions@VindicoCME.com

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Advances in Therapy for Inherited Non-Malignant Blood Disorders:

Focus on Sickle Cell Disease and Hemophilia

Friday, December 4, 2020
11:00 AM – 12:30 PM PT | 2:00 PM – 3:30 PM ET
Virtual Satellite Symposium
With LIVE Question & Answer

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Agenda

Unmet Needs for Patients With Non-Malignant Blood Disorders
Chris Guelcher, Hemostasis RN-BC, MS, PPCNP-BC

Panel Discussion
Moderated by Steven W. Pipe, MD

Disease Modification in SCD – Available and Emerging Approaches
Biree Andemariam, MD

Panel Discussion
Moderated by Steven W. Pipe, MD

Advances in the Management in Patients With Hemophilia
Mark Reding, MD

Panel Discussion
Moderated by Steven W. Pipe, MD

LIVE Question & Answer

Steven W. Pipe, MD
Activity Chair
University of Michigan
Ann Arbor, MI

Biree Andemariam, MD
University of Connecticut
Farmington, CT

Chris Guelcher, Hemostasis RN-BC, MS, PPCNP-BC
Children’s National Hospital
Washington, DC

Mark Reding, MD
University of Minnesota
Minneapolis, MN

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This activity is supported by an educational grant from Novo Nordisk Inc.

This activity is preceding the 62nd ASH Annual Meeting and Exposition.
IN THE TREATMENT OF RELAPSED REFRACTORY MULTIPLE MYELOMA IN COMBINATION WITH POMALIDOMIDE AND DEXAMETHASONE (Pd)

ACHIEVE GREATER OUTCOMES FOR YOUR PATIENTS

SARCLISA is an anti-CD38 therapy proven to deliver superior PFS (median PFS of 11.53 months with SARCLISA + Pd vs 6.47 months with Pd alone, HR=0.596, 95% CI: 0.44, 0.81, P=0.0010).

SARCLISA also demonstrated a significant increase in ORR (60.4% with SARCLISA + Pd [95% CI: 52.2%, 68.2%] vs 35.3% with Pd alone [95% CI: 27.8%, 43.4%], P<0.0001)

NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®)
Preferred Category 1 recommendation for isatuximab-irfc (SARCLISA)

Isatuximab-irfc (SARCLISA), in combination with pomalidomide and dexamethasone, is a Preferred Category 1 option for previously treated multiple myeloma by the National Comprehensive Cancer Network® (NCCN®).

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* ORR included sCR, CR, VGPR, and PR. sCR, CR, VGPR, and PR were evaluated by an IRC using the IMWG response criteria.
CR-complete response; IMWG=International Myeloma Working Group; IRC-independent response committee; mAb-monoclonal antibody; NCCN-National Comprehensive Cancer Network; ORR-overall response rate; PFS-progression-free survival; PR-partial response; sCR-stringent complete response; VGPR-very good partial response.

Indication

SARCLISA (isatuximab-irfc) is indicated, in combination with pomalidomide and dexamethasone, for the treatment of adult patients with multiple myeloma who have received at least two prior therapies including lenalidomide and a proteasome inhibitor.

Important Safety Information

CONTRAINDICATIONS
SARCLISA is contraindicated in patients with severe hypersensitivity to isatuximab-irfc or to any of its excipients.

WARNINGS AND PRECAUTIONS

Infusion-Related Reactions
Infusion-related reactions (IRRs) have been observed in 39% of patients treated with SARCLISA. All IRRs started during the first SARCLISA infusion and resolved on the same day in 98% of the cases. The most common symptoms of an IRR included dyspnea, cough, chills, and nausea. The most common severe signs and symptoms included hypertension and dyspnea.

Please see Important Safety Information throughout, and accompanying brief summary of full Prescribing Information.
Choose SARCLISA + Pd to Offer Improved Outcomes to More Patients vs Pd Alone

___ Studied in the phase 3 ICARIA-MM trial, which included ___ patients with poor prognostic factors

Based on the ICARIA-MM trial, SARCLISA + Pd is a treatment choice for patients with relapsed refractory multiple myeloma

- Who have received at least 2 prior therapies, including lenalidomide and a PI
- Who may have renal impairment (creatinine clearance <60 mL/min/1.73 m²), high cytogenetic risk, or a history of COPD or asthma
- Who may have poor performance status or are ≥75 years of age
- Who are refractory to lenalidomide, a PI, or both

**STUDY DESIGN:** ICARIA-MM (NCT02990338), a multicenter, open-label, randomized, phase 3 study, evaluated the efficacy and safety of SARCLISA in 307 patients with relapsed refractory multiple myeloma who had received at least 2 prior therapies, including lenalidomide and a PI. Patients received either SARCLISA 10 mg/kg administered as an IV infusion in combination with Pd (n=154) or Pd alone (n=153), administered in 28-day cycles until disease progression or unacceptable toxicity. SARCLISA was given weekly in the first cycle and every 2 weeks thereafter. Pomalidomide 4 mg was taken orally once daily from day 1 to day 21 of each 28-day cycle. Low-dose dexamethasone (orally or IV) 40 mg (20 mg for patients ≥75 years of age) was given on days 1, 8, 15, and 22 for each 28-day cycle. PFS was the primary endpoint; ORR and OS were key secondary endpoints. PFS results were assessed by an IRC, based on central laboratory data for M-protein, and central radiologic imaging review using the IMWG criteria. Median follow-up was 11.6 months.1

**PATIENT CHARACTERISTICS:** The median patient age was 67 years (range, 36 to 86), and 20% of patients were ≥75 years of age. Ten percent of patients entered the study with a history of COPD or asthma. The proportion of patients with renal impairment (creatinine clearance <60 mL/min/1.73 m²) was 34%. The ISS stage at study entry was I in 37%, II in 36%, and III in 25% of patients. Overall, 20% of patients had high-risk chromosomal abnormalities at study entry: del(17p), t(4;14), and t(14;16) were present in 12%, 8%, and 2% of patients, respectively. The median number of prior lines of therapy was 3 (range, 2 to 11). All patients received a prior PI, all patients received prior lenalidomide, and 56% of patients received prior stem cell transplantation; the majority of patients (93%) were refractory to lenalidomide, 76% to a PI, and 73% to both an immunomodulator and a PI.1

COPD=chronic obstructive pulmonary disease; ISS=International Staging System; IV=intravenous; OS=overall survival; PI=proteasome inhibitor.

**Important Safety Information (cont’d)**

**Infusion-Related Reactions (cont’d)**
To decrease the risk and severity of IRRs, premedicate patients prior to SARCLISA infusion with acetaminophen, H₂ antagonists, diphenhydramine or equivalent, and dexamethasone. Monitor vital signs frequently during the entire SARCLISA infusion. For patients with grade 1 or 2 reactions, interrupt SARCLISA infusion and provide appropriate medical support. If symptoms improve, restart SARCLISA infusion at half of the initial rate, with supportive care as needed, and closely monitor patients. If symptoms do not recur after 30 minutes, the infusion rate may be increased to the initial rate, and then increased incrementally. In case symptoms do not improve or recur after interruption, permanently discontinue SARCLISA and institute appropriate management. Permanently discontinue SARCLISA if a grade 3 or higher IRR occurs and institute appropriate emergency medical management.
The median duration of treatment was 41 weeks with SARCLISA + Pd vs 24 weeks with Pd.\(^1\)

At a median follow-up time of 11.6 months, 43 patients (27.9%) receiving SARCLISA + Pd and 56 patients (36.6%) receiving Pd had died. Median OS was not reached for either treatment group at interim analysis. The OS results at interim analysis did not reach statistical significance.\(^1\)

### SARCLISA + Pd showed a significant increase in ORR\(^1\)*

<table>
<thead>
<tr>
<th>SARCLISA + Pd (n=154)</th>
<th>Pd (n=153)</th>
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<tbody>
<tr>
<td><strong>60.4% ORR</strong></td>
<td><strong>35.3% ORR</strong></td>
</tr>
<tr>
<td><strong>31.8% ≥ VGPR</strong></td>
<td><strong>8.5% ≥ VGPR</strong></td>
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<tr>
<td>35 days</td>
<td>Median time to first response among responders</td>
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<td></td>
<td>58 days</td>
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</tbody>
</table>

*ORR included sCR, CR, VGPR, and PR. ORR: SARCLISA + Pd (95% CI: 52.2%, 68.2%), Pd (95% CI: 27.8%, 43.4%).

### Important Safety Information (cont’d)

#### Neutropenia

SARCLISA may cause neutropenia. Neutropenia (reported as laboratory abnormality) occurred in 96% of patients and grade 3-4 neutropenia occurred in 85% of patients treated with SARCLISA, pomalidomide, and dexamethasone (Isa-Pd). Febrile neutropenia occurred in 12% of patients and neutropenic infections, defined as infection with concurrent grade ≥3 neutropenia, occurred in 25% of patients treated with Isa-Pd. The most frequent neutropenic infections included those of upper respiratory tract (10%), lower respiratory tract (9%), and urinary tract (3%).

Please see Important Safety Information throughout, and accompanying brief summary of full Prescribing Information.
Important Safety Information (cont’d)

Neutropenia (cont’d)
Monitor complete blood cell counts periodically during treatment. Consider the use of antibiotics and antiviral prophylaxis during treatment. Monitor patients with neutropenia for signs of infection. In case of grade 4 neutropenia, delay SARCLISA dose until neutrophil count recovery to at least 1.0 x 10^9/L, and provide supportive care with growth factors, according to institutional guidelines. No dose reductions due to SARCLISA are recommended.

Second Primary Malignancies
Second primary malignancies were reported in 3.9% of patients in the SARCLISA, pomalidomide, and dexamethasone (Isa-Pd) arm and in 0.7% of patients in the pomalidomide and dexamethasone (Pd) arm, and consisted of skin squamous cell carcinoma (2.6% of patients in the Isa-Pd arm and in 0.7% of patients in the Pd arm), breast angiosarcoma (0.7% of patients in the Isa-Pd arm), and myelodysplastic syndrome (0.7% of patients in the Isa-Pd arm). With the exception of the patient with myelodysplastic syndrome, patients were able to continue SARCLISA treatment. Monitor patients for the development of second primary malignancies.

Laboratory Test Interference

Interference with Serological Testing (Indirect Antiglobulin Test)
SARCLISA binds to CD38 on red blood cells (RBCs) and may result in a false positive indirect antiglobulin test (indirect Coombs test). In ICARIA–multiple myeloma (MM), the indirect antiglobulin test was positive during SARCLISA treatment in 67.7% of the tested patients. In patients with a positive indirect antiglobulin test, blood transfusions were administered without evidence of hemolysis. ABO/RhD typing was not affected by SARCLISA treatment. Before the first SARCLISA infusion, conduct blood type and screen tests on SARCLISA-treated patients. Consider phenotyping prior to starting SARCLISA treatment. If treatment with SARCLISA has already started, inform the blood bank that the patient is receiving SARCLISA and SARCLISA interference with blood compatibility testing can be resolved using dithiothreitol-treated RBCs. If an emergency transfusion is required, non–cross-matched ABO/RhD-compatible RBCs can be given as per local blood bank practices.

Interference with Serum Protein Electrophoresis and Immunofixation Tests
SARCLISA is an IgG kappa monoclonal antibody that can be incidentally detected on both serum protein electrophoresis and immunofixation assays used for the clinical monitoring of endogenous M-protein. This interference can impact the accuracy of the determination of complete response in some patients with IgG kappa myeloma protein.

Embryo-Fetal Toxicity
Based on the mechanism of action, SARCLISA can cause fetal harm when administered to a pregnant woman. SARCLISA may cause fetal immune cell depletion and decreased bone density. Advise pregnant women of the potential risk to a fetus. Advise females with reproductive potential to use an effective method of contraception during treatment with SARCLISA and for at least 5 months after the last dose. The combination of SARCLISA with pomalidomide is contraindicated in pregnant women because pomalidomide may cause birth defects and death of the unborn child. Refer to the pomalidomide prescribing information on use during pregnancy.

ADVERSE REACTIONS
The most common adverse reactions (≥20%) were neutropenia (laboratory abnormality, 96% Isa-Pd vs 92% Pd), infusion-related reactions (38% Isa-Pd vs 0% Pd), pneumonia (31% Isa-Pd vs 23% Pd), upper respiratory tract infection (57% Isa-Pd vs 42% Pd), and diarrhea (26% with Isa-Pd vs 19% Pd). Serious adverse reactions occurred in 62% of patients receiving SARCLISA. Serious adverse reactions in >5% of patients who received Isa-Pd included pneumonia (26%), upper respiratory tract infections (7%), and febrile neutropenia (7%). Fatal adverse reactions occurred in 11% of patients (those that occurred in more than 1% of patients were pneumonia and other infections [3%]).

USE IN SPECIAL POPULATIONS
Because of the potential for serious adverse reactions in the breastfed child from isatuximab-irfc administered in combination with Pd, advise lactating women not to breastfeed during treatment with SARCLISA.

Please see accompanying brief summary of full Prescribing Information.


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SARCLISA® (isatuximab-iri) injection, for intravenous use
Brief Summary of Prescribing Information

1 INDICATIONS AND USAGE
SARCLISA is indicated, in combination with pomalidomide and dexamethasone, for the treatment of adult patients with multiple myeloma who have received at least two prior therapies including lenalidomide and a proteasome inhibitor.

2 DOSAGE AND ADMINISTRATION

2.1 Recommended Dosage
Administer up to 3 mg/kg dose of SARCLISA, without dose reduction, in combination with pomalidomide and dexamethasone, as indicated.

2.2 Recommended Premedications
Administer the following premedications prior to SARCLISA infusion to reduce the risk and severity of infusion-related reactions:

- Diphenhydramine 25 mg to 50 mg orally or intravenously
- Dexamethasone 40 mg orally or intravenously (or 20 mg orally or intravenously for patients ≥75 years of age)
- Acetaminophen 1000 mg orally or intravenously
- H2 antagonists

2.3 Dose and Administration

2.3.1 Initial Infusion

Dose reduction of SARCLISA is recommended. Dose delay or interruption SARCLISA infusion may cause fetal immune cell depletion and decreased bone density. Advise pregnant women to use effective contraception during treatment. Consider the use of antibiotics and antiviral prophylaxis during treatment. Monitor patients with neutropenia for signs of infection. In case of grade 4 neutropenia delay SARCLISA dose until neutrophil count recovery to at least 1.0 × 10⁹/L, and provide supportive care with growth factors, according to institutional guidelines. No dose reductions of SARCLISA are recommended.

2.3.2 Second and Subsequent Infusions

- Neutropenia
- Infusion-Related Reactions

3 CONTRAINDICATIONS
SARCLISA is contraindicated in patients with severe hypersensitivity to its components or to any of its excipients [see Warnings and Precautions (5.1)].

4 WARNINGS AND PRECAUTIONS

4.1 Infusion-Realted Reactions

Infusion-related reactions have been observed in 39% of patients treated with SARCLISA [see Adverse Reactions (6.1)]. All infusion-related reactions started during the first SARCLISA infusion and resolved on the same day in 98% of the cases. The following table presents the incidence of infusion-related reactions:

<table>
<thead>
<tr>
<th>Reaction</th>
<th>Incidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infusion-Related Reactions</td>
<td>39%</td>
</tr>
</tbody>
</table>

4.2 Laboratory Test Interference

SARCLISA is an IgG kappa monoclonal antibody that can be incidentally detected on both serum protein electrophoresis and immunofixation assays used for the clinical monitoring of endogenous M-protein. This interference can impact the accuracy of the determination of complete response in some patients with IgG kappa myeloma protein [see Drug Interactions (7.1)].

5.5 Embryo-Fetal Toxicity

Based on the mechanism of action, SARCLISA can cause fetal harm when administered to a pregnant woman. SARCLISA may cause fetal immune cell depletion and decreased bone density. Advise pregnant women to use effective contraception during treatment. Consider the use of antibiotics and antiviral prophylaxis during treatment. Monitor patients with neutropenia for signs of infection. In case of grade 4 neutropenia delay SARCLISA dose until neutrophil count recovery to at least 1.0 × 10⁹/L, and provide supportive care with growth factors, according to institutional guidelines. No dose reductions of SARCLISA are recommended.

6 ADVERSE REACTIONS

The following clinically significant adverse reactions from SARCLISA are also described in other sections of the labeling:

- Neutropenia [see Warnings and Precautions (5.1)]
- Infusion-Related Reactions [see Warnings and Precautions (5.1)]
- Neutropenia [see Warnings and Precautions (5.2)]
- Secondary Primary Malignancies [see Warnings and Precautions (5.3)]

6.1 Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

Multiple Myeloma

The safety of SARCLISA was evaluated in (ICARIA-MM), a randomized, open-label clinical trial in patients with previously treated multiple myeloma. Patients were eligible for inclusion if they had ECOG status of 0–2, platelets ≥75,000 cells/mm³, absolute neutrophil count ≥1 × 10⁹/L, creatinine clearance ≥30 mL/min (MDRD formula), and ASH and/or ALT ≤3 × ULN. Patients received SARCLISA 10 mg/kg intravenously, weekly in the first cycle and every 2 weeks thereafter in combination with pomalidomide and low dose dexamethasone (Isa-Pd) arm and in 0.7% of patients in the pomalidomide and dexamethasone (PD) arm, and consisted of skin squamous cell carcinoma (2.6% of patients in the Isa-Pd arm and in 0.7% of patients in the pomalidomide and dexamethasone arm). SARCLISA is an IgG kappa monoclonal antibody that can be incidentally detected on both serum protein electrophoresis and immunofixation assays used for the clinical monitoring of endogenous M-protein. This interference can impact the accuracy of the determination of complete response in some patients with IgG kappa myeloma protein [see Drug Interactions (7.1)].
The most common adverse reactions (≥20%) were neutropenia, infusion-related reactions, pneumonia, upper respiratory tract infection, and diarrhea. Table 3 summarizes the adverse reactions in ICARIA-MM.

### Table 3: Adverse Reactions (≥10%) in Patients Receiving SARCLISA, Pomalidomide, and Dexamethasone with a Difference Between Arms of ≥5% Compared to Control Arm in ICARIA-MM Trial

<table>
<thead>
<tr>
<th>Adverse Reactions</th>
<th>SARCLISA + Pomalidomide + Dexamethasone (N=152)</th>
<th>Pomalidomide + Dexamethasone (Pd) (N=149)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infection</td>
<td>All grades (%)</td>
<td>Grade 3 (%)</td>
</tr>
<tr>
<td>Pneumonia*</td>
<td>31 (22)</td>
<td>33 (22)</td>
</tr>
<tr>
<td>Upper respiratory tract infection</td>
<td>57 (9)</td>
<td>57 (9)</td>
</tr>
</tbody>
</table>

### Table 4: Treatment Emergent Hematology Laboratory Abnormalities in Patients Receiving Isa-Pd Treatment versus Pd Treatment – ICARIA-MM

<table>
<thead>
<tr>
<th>Parameter</th>
<th>SARCLISA + Pomalidomide + Dexamethasone (N=152)</th>
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<tbody>
<tr>
<td>Anemia</td>
<td>151 (96)</td>
<td>145 (91)</td>
</tr>
<tr>
<td>Neutropenia</td>
<td>116 (96)</td>
<td>110 (90)</td>
</tr>
<tr>
<td>Lymphopenia</td>
<td>140 (90)</td>
<td>135 (90)</td>
</tr>
<tr>
<td>Thrombocytopenia</td>
<td>127 (94)</td>
<td>122 (94)</td>
</tr>
</tbody>
</table>

### Table 4: Blood and lymphoid system disorders

- Neutropenia
- Respiratory, thoracic, and mediastinal disorders

### Table 5: Gastrointestinal disorders

- Diarrhea
- Nausea
- Vomiting

CTCAE version 4.03
*Pneumonia includes atypical pneumonia, bronchopulmonary aspergillosis, pneumonia, pneumonitis, pneumonia, pulmonary eosinophilic pneumonia, pneumonia, pneumopathy, pneumonia, pneumococcal pneumonia, pneumonitis, pneumonia viral, candida pneumonia, pneumonia bacterial, haemorrhagic infection, lung infection, pneumonia fungal, and pneumocystis jiroveci pneumonia.

Upper respiratory tract infection includes bronchiolitis, bronchitis, chronic sinusitis, fungal pharyngitis, influenza-like illness, laryngitis, nasopharyngitis, parainfluenza virus infection, pharyngitis, respiratory tract infection, respiratory tract infection viral, rhinitis, sinusitis, tracheitis, upper respiratory tract infection, and upper respiratory tract infection bacterial.

Dyspnea includes dyspnea, dyspnea exertional, and dyspnea at rest.

Table 4 summarizes the hematologic laboratory abnormalities in ICARIA-MM.

### Table 4: Treatment Emergent Hematology Laboratory Abnormalities in Patients Receiving Isa-Pd Treatment versus Pd Treatment – ICARIA-MM

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<td>122 (94)</td>
</tr>
</tbody>
</table>

### Description of Selected Adverse Reactions

#### Infusion-related reactions

In ICARIA-MM, infusion-related reactions (defined as adverse reactions associated with or temporally reported severe infection with Grade 3 reported in 22% of patients in Isa-Pd group compared to 16% in Pd group, and Grade 4 in 3.3% of patients in Isa-Pd group compared to 2.7% in Pd group. Discontinuations from treatment due to infusion were reported in 2.6% of patients in Isa-Pd group compared to 5.4% in Pd group. Fatal infections were reported in 3.3% of patients in Isa-Pd group and in 4% in Pd group.

#### 6.2 Immunogenicity

As with all therapeutic proteins, there is a potential for immunogenicity. The detection of antibody formation is highly dependent on the sensitivity and specificity of the assay. Additionally, the observed incidence of antibody (including neutralizing antibody) positivity in an assay may be influenced by several factors, including assay methodology, sample collection, timing of sample collection, concomitant medications, and underlying disease. For these reasons, comparison of the incidence of antibodies in the studies described below with the incidence of antibodies in other studies or to other isatuximab-irfcs may be misleading.

In ICARIA-MM, no patients tested positive for antidrug antibodies (ADA). Therefore, the neutralizing ADA status was not determined. Overall, across 6 clinical studies in multiple myeloma (MM) with SARCLISA single agent and combination therapies including ICARIA-MM (N=364), the incidence of treatment emergent ADAs was 2.3%. No clinically significant differences in the pharmacoekinetics, safety, or efficacy of isatuximab-irfcs were observed in patients with ADAs.

### 7 DRUG INTERACTIONS

#### 7.1 Laboratory Test Interference

Interruption with Serum Protein Electrophoresis and Immunofixation tests, antibody identification panels, and antibody screening (screening) tests, antibody identification panels, and antihuman globulin crossmatches in patients treated with SARCLISA [see Warnings and Precautions (5.4)].

#### 8 USE IN SPECIFIC POPULATIONS

#### 8.1 Pregnancy

### Risk Summary

SARCLISA can cause fetal harm when administered to a pregnant woman. The assessment of isatuximab-irfc-associated risks is based on the mechanism of action and data from target antigen CD38 knockout animal models [see Data]. There are no available data on SARCLISA use in pregnant women to evaluate for a drug-associated risk of major birth defects, miscarriage or adverse maternal or fetal outcomes. Animal reproduction toxicity studies have not been conducted with isatuximab-irfcs. The estimated background risk of major birth defects and miscarriage for the indicated population is unknown. All pregnancies have a background risk of birth defect, miscarriage, or other adverse outcomes. In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2% to 4% and 15% to 20%, respectively.

The combination of SARCLISA and pomalidomide is contraindicated in pregnant women because pomalidomide may cause birth defects and death of the unborn child. Refer to the pomalidomide prescribing information on use during pregnancy. Pomalidomide is only available through a REMS program.

### 10 OVERDOSAGE

There is no known specific antidote for SARCLISA overdose. In the event of overdose of SARCLISA, monitor the patients for signs or symptoms of adverse effects and take all appropriate measures immediately.
Submit your cases to the ASH® Research Collaborative COVID-19 Registry.

The ASH Research Collaborative COVID-19 Registry for Hematology is a global public reference tool that includes de-identified data on patients who have a positive COVID-19 diagnosis and any current or past hematologic condition, and patients without pre-existing hematologic conditions who developed a hematologic complication from COVID-19. Data are analyzed in real time and summaries are available via a public dashboard.

If you or your colleagues have cared for a patient who is being or has been treated for any hematologic condition and has tested positive for COVID-19, please submit your data to the ASH RC COVID-19 Registry for Hematology.

Enter cases online at www.ashrc.org.

The Registry was reviewed by the Western IRB, a central IRB, and determined to be exempt under 45 CFR § 46.104(d)(4) and approved for a waiver of authorization.
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