

# **CEPC MEETING AGENDA**

5:00 PM - 6:30 PM 07/10/2023

# **CHAIR:**

Dr. Maureen Francis, MD, MACP, MS-HPEd

### **VOTING MEMBERS:**

Colby Genrich, MD; Fatima Gutierrez, MD; Houriya Ayoubieh, MD; Jessica Chacon, PhD, Munmun Chattopadhyay, PhD; Patricia Ortiz, MD; Khanjani Narges, MD, PhD; Dale Quest, PhD; Wajeeha Saeed, MD

# **EX-OFFICIO:**

Lisa Beinhoff PhD; Martin Charmaine, MD; Tanis Hogg, PhD; Jose Lopez

# STUDENT REPRESENATIVES:

Katherine Asmis MS2 (Voting); Joshua Salisbury MS2 (Ex Officio); Rowan Sankar MS3 (Voting); Nikolas Malize MS3 (Ex Officio); Whitney Shaffer MS4 (Voting); Rohan Rereddy MS4 (Ex Officio)

# **INVITED/GUESTS:**

Richard Brower, MD, FAAN; Jose Manuel de la Rosa, MD; Thwe Htay, MD

# **APPROVAL OF MINUTES**

Minutes will be attached.

# **ANNOUNCEMENTS**

Presenter(s):



# **ITEMS FROM STUDENT REPRESENTATIVES**

Presenter(s): Students

# **ITEM I Pre-Clerkship ILP**

Presenter(s): Dr. Hogg

# **ITEM II Policy Updates**

Presenter(s): Dr. Hogg

o Pre-Clerkship Phase Student Attendance and Participation Policy Review

# ITEM III Potential changes to the GPAS policy related to Step 1

Presenter(s): Dr. Francis

# **ITEM IV Clerkship Directors List Updates**

Presenter(s): Dr. Francis

# **OPEN FORUM**

# **ADJOURN**



CEPC Monthly Meeting Minutes 05:00 PM - 06:30 PM 07/10/2023

# **MEMBERS IN ATTENDANCE:**

Maureen Francis, Dale Quest, Wajeeha Saeed, Fatima Gutierrez, Jessica Chacon, Houriya Ayoubieh, Patricia Ortiz, Khanjani Narges, Munmun Chattopadhyay, Lisa Beinhoff, Martin Charmaine, Tanis Hogg, Jose Lopez, Katherine Asmis, Whitney Shaffer

# **MEMBERS NOT IN ATTENDANCE:**

Colby Genrich, , Rowan Sankar, Rohan Rereddy, Nikolas Malize, Joshua Salisbury

# PRESENTERS/GUESTS IN ATTENDANCE:

Richard Brower, Priya Harindranathan

# **INVITED/GUESTS NOT IN ATTENDANCE:**

Jose Manuel de la Rosa, Thwe Htay

### **REVIEW AND APPROVAL OF MINUTES**

**Dr. Francis CEPC Chair** 

Having met quorum, the meeting minutes from the June 12, 2023 meeting were voted on and approved as presented.

**Decision:** Dr. Quest moves the motion for approval.

Dr. Chacon seconds the motion. No objections: Motion was approved.

### **ITEMS FROM STUDENT REPRESENTATIVES**

MS1 O Currently vacant. Student representatives will be selected in August.



### **ITEM I Pre-Clerkship ILP**

Presenter(s): Dr. Hogg

Presented Pre-Clerkship Phase Compliance with LCME Element 6.3 (Self-Directed Learning) \*Please see attached report.

- Summarized the intent of element 6.3 and highlighted the common pitfalls and recommendations from the LCME.
- Pointed out that an updated DCI (AY 2023-24) requires the list of the courses in which self-directed learning activities occur during the pre-clerkship phase of the curriculum, and a description of learning activities in which students engage in all components of self-directed learning in a unified sequence.
- Stressed that schools have to be more explicit with how SDL skills are assessed and how the feedback is provided.
- Shared LCME's definition of the 4 Phases of SDL (slide 4).
- Presented proposal below for an SDL/ILP requirement developed by the pre-clerkship curriculum committee:
  - Orient matriculating students to self-directed learning during immersion
  - After IHD unit, students will be required to enter a reflection including learning goals, an honest self-assessment of strengths and weaknesses, plans/strategies/resources to achieve each goal, and description of assessment or tool that will be used to measure progress towards each goal. Students will receive initial formative feedback at this point.
  - After each subsequent unit, students will enter an updated reflection, revise and/or create new goals, strategies, resources, etc.
  - At beginning of year 2, students will provide a summary reflection, including a self-assessment of their overall SDL/ILP skills, and new goal setting for year 2. An assigned faculty coach/mentor will complete an assessment rubric on the student's SDL skills.
  - Similar sequence of activities (steps 2-4 above) over the course of year 2, with an end-of-pre-clerkship assessment of student's development in the 'Practice-Based Learning and Improvement' and 'Personal/Professional Development' competency domains.



- Explained that implementation of this proposal would require development of a platform/dashboard for students and for faculty/coaches. Used a dashboard from Vanderbilt's VSTAR as a good example that could be replicated to meet the needs of our school.
- Concluded the presentation with the SDL/ILP Template (slide 10) and Self-Directed Learning (SDL) Plan Rubric (11).

Dr. Hogg queried members for their feedback about the presentation.

- o Dr. Francis suggested adding, under the Learning Goals category, within SDL plan rubric (slide 11), that students have mapped their learning goals to a competency or PGO. Dr. Hogg agreed to update the rubric.
- o Dr. Ortiz asked which faculty would be assigned to review plans and provide feedback.
- o Dr. Hogg responded that the plan was to start with college mentors, course directors and discipline experts.
- Dr. Francis stated that students have to have a clear understanding that this plan is exclusively created for the pre-clerkship phase.
- o Dr. Ayoubieh asked about the frequency of the rubric completion.
- o Dr. Hogg explained that it was planned to be done during the first self-reflection and then again at the end of the year.
- o Dr. Ayoubieh asked if students could make a comment about this process; she wondered if students would perceive it as useful.
- Student Katherine Asmis stated that a similar practice has been in place, but stressed that feedback from college mentors about goals would be very helpful.
- o Dr. Saeed suggested that students should be able to add in their rubric the level of progression and set goals according their own self-assessment.
- Dr. Hogg asked if this plan should be launched now with the 1st year students, and if it should be also launched with 2nd year students. Also, he asked if it should be phased in with the 1st year students.
- o Dr. Francis asked if it can be formalized how often the faculty would provide the feedback.
- o Dr. Ayoubieh commented that an informal check on students is already in place but not documented.
- Dr. Hogg stated that the LCME required the process to be formally documented on a periodic basis.
- o Dr. Hogg suggested to implement this process after the first unit and once at the end of the year.
- o Dr. Quest asked if students would trigger or request feedback.



- o Dr. Hogg asked if that was the case in the clerkship phase.
- Dr. Francis confirmed that process was student directed and that students would automatically receive the feedback from faculty.
- Dr. Brower asked what would be criteria for non-fulfillment of this process.
- Dr. Hogg responded that non-fulfilment of the plan relates to professionalism and could potentially lead to the GPC for referral. He noted that he is still trying to find the best approach on how to operationalize this and whether there should be a formal grade. He concluded that here is no consensus on the plan on how this would be operationalized in different institutions.
- o Dr. Francis concluded the discussion with a recommendation to start implementing this process with the 1st year.

Dr. Khanjani moves the motion for approval.

Dr. Ortiz seconds the motion.

No objections: Motion was approved.

# **ITEM II Policy Updates**

Presenter(s): Dr. Hogg

Presented the Review of Pre-Clerkship Phase Attendance Policy

\*Please see attached report.

- Summarized the key elements of the policy and proposed the following revisions:
  - Transfer the general day-to-day monitoring/reporting of absences and management of absence requests from the Office of Student Affairs (OSA) to the Office of Medical Education (OME) and the Department of Medical Education (DME). Dr. Hogg pointed out that the pre-clerkship team would be dealing with the day to day operational aspects of the policy, and if unfavorable trends were identified, they would include the associate dean for student affairs and relevant college mentors.
  - Update the process for students requesting/reporting absences (from e-mail to web-based system). He
    explained that the old mechanism of reporting/requesting absences from an e-mail system would be
    replaced with an online absence case management system (Maxient).



- Bring total number of allowed absences per semester/year into closer alignment with other programs. He provided a review of numerous policies from other US medical schools to illustrate the allowed number of absences, proposed the following:
- a requirement that a student be referred to the associate dean for student affairs (or designee) if they have a total of 5 absences (excused and/or unexcused) over an academic year (instead of a semester)
- a requirement that they be referred by the associate dean to the GPC if they have 10 or more absences (excused and/or unexcused) over an academic year (instead of a semester)
- Dr. Martin commented that there are other policies in place i.e. Student Leaves of Absence and Suspensions
  policy if student needs more time to come back and remediate.
- o Dr. Brower stated that if we look into a person with migraine which is 20% to 30% of females, and add a cold to this, the numbers seems tight.
- o Dr. Francis asked if somebody was sick in pre-clerkship for the entire week how many days they would end up getting. Dr. Hogg responded 2 or 3 if they had anatomy.
- Student Whitney Shaffer commented that as long as everybody is checking on students in real time and understands what they are going through, it won't matter what number is stated in the policy.
- Or. Beinhoff stated that this policy is more lenient than many policies from different institutions because many of these policies automatically send students to the committee, which is not the case here. She added that this policy is actually triggering a meeting when students need it. Dr. Ortiz agreed and stated that she was in favor of the proposed changes.

Dr. Ortiz moves the motion for approval.

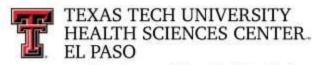
Dr. Chacon seconds the motion.

No objections: Motion was approved.

o Dr. Francis concluded with confirmation from the members that this policy will be implemented immediately.

ITEM III Potential changes to the GPAS policy related to Step 1

Presenter (s) Dr. Francis Presented changes to the GPAS policy related to Step 1



\*Please see attached report.

Dr. Francis pointed out that the proposed changes below are important for 2nd year students:

# Current GPAS Policy:

- If a student achieves a score of 63 or greater on the CBSE, then the student is designated as eligible to take the USMLE Step 1
- For on-time promotion to the clerkship phase, the student must receive a passing score on the USMLE Step 1 exam prior to the first day of year 3 orientation
- If the student does not receive a passing score prior to first day of M3 orientation, they would be placed on academic warning, referred to GPC to discuss the reasons for the delay, and their clerkship entry would be postponed

Dr. Francis explained that the Year 1&2 and the Year 3&4 Committees identified some challenges when they saw the timeline for the spring semester of year 2 and considered a scheduled delay in USMLE 1 score reporting. She explained that NBME had a Step 1 score reporting blackout period beginning mid-April this year. Therefore, she stated that if a student doesn't take their Step 1 prior to the blackout period, their Step 1 score wouldn't be available prior to clerkship orientation in mid-May.

• Dr. Francis proposed adding more flexibility in CBSE administration dates and waiving the requirement for receipt of a passing score on USMLE Step 1 prior to MS3 Orientation. A CBSE score of ≥ 63 will still be required in order to sit for Step 1 (unchanged from current policy).

A detailed summary of the proposal for AY 2023-24 can be found on slide 4.

Dr. Francis illustrated the proposed changes through the redlined policy document. She noted that she will add a phrase stating that students are required to take CBSE and receive a passing score, and then to pass Step 1, before re-enrolling in the curriculum if their progression and their entry into year 3 is delayed.

Dr. Quest moves the motion for approval.



Student Whitney Shaffer seconds the motion.

No objections: Motion was approved.

# **ITEM IV Clerkship Directors List Updates**

Members voted electronically and asynchronously, and adopted the following items:

- o Dr. Rytting the new Pediatric Sub-Internship Clerkship Director
- o Dr. Kokhanov, the new Pediatric Clerkship Co-Director
- o Dr. Kato, the new Pediatric Clerkship Co-Director
- o Dr. Steffen-Gutierrez, the new Assistant Clerkship Director for OB-GYN
- The Grading Procedures and Academic Regulation Policy has the new reference code HSCEP OP 59.05 (the previous code was HSCEP OP 77.19)
- o Business Strategies in AI (BA 5385) Elective Course for MD/MBA Dual Program

### **OPEN FORUM**

# **ADJOURN**

Meeting adjourned at 6:40pm.

# Pre-Clerkship Phase Compliance with LCME Element 6.3 (Self-Directed Learning)

CEPC Meeting
7/10/23
Dr. Tanis Hogg



# Element 6.3 Self-Directed and Life-Long Learning Frequently cited

# **Summary of Intent**

The basic intent of Element 6.3 is that students have an opportunity to practice a skill that they will use in the clerkships and throughout their professional lives, including independently identifying a question that they need to answer, finding credible data to answer the question, synthesizing the information, and receiving feedback. Since this is a skill that, in "real-life" needs to be exercised over a short period of time, the sequence of steps needs to be carried out in a unified sequence over a relatively short period of time. The feedback that students receive is an assessment of the credibility of the information sources they used and their ability to utilize the information in response to their self-identified question.

# **Pitfalls**

- > Feedback is not given to each student on their question framing/information seeking
- > The steps do not occur in a unified sequence, so it is not clear to what the feedback relates

# <u>Tips</u>

- > There is no LCME-determined number of times students must go through the sequence of four steps.
- Feedback need not occur after every opportunity students have to go though the steps. There should, however, be sufficient feedback to ensure that students have mastered the skill before entering clerkships

# Element 6.3 Self-Directed and Life-Long Learning Frequently cited

Major changes between the 2022-23 and 2023-24 LCME Data Collection instrument (DCI) for Full Accreditation Surveys (**DCI** published in April 2022).

List the courses in which self-directed learning activities (as defined in the language of Element 6.3) occur during the preclerkship phase of the curriculum. Describe the learning activities in which students engage in all of the following components of self-directed learning in a unified sequence and indicate how and by whom student achievement of these skills is assessed and feedback provided. Use the names of relevant courses from Table 6.0-1 when answering.

# Implication/Recommendation

The DCI change requires schools to be more explicit with how SDL skills are assessed and more importantly feedback is provided. The evidence is typically asked as part of survey visits. It appears that the LCME now wants it documented in the DCI.

# LCME's Definition of the 4 Phases of SDL

- 1. Medical students' self assessment of their learning needs
- 2. Independent identification, analysis, and synthesis of relevant information
- Independent and facilitator appraisal of the credibility of information sources
- 4. Assessed on and receive feedback on information-seeking skills from faculty and/or staff

# Pre-Clerkship Committee Discussions

- Pre-clerkship curriculum committee established a working group to develop a proposal for a SDL/ILP requirement threaded through the pre-clerkship phase
- Working group met on 3/28 and reported back to pre-clerkship committee on 4/4

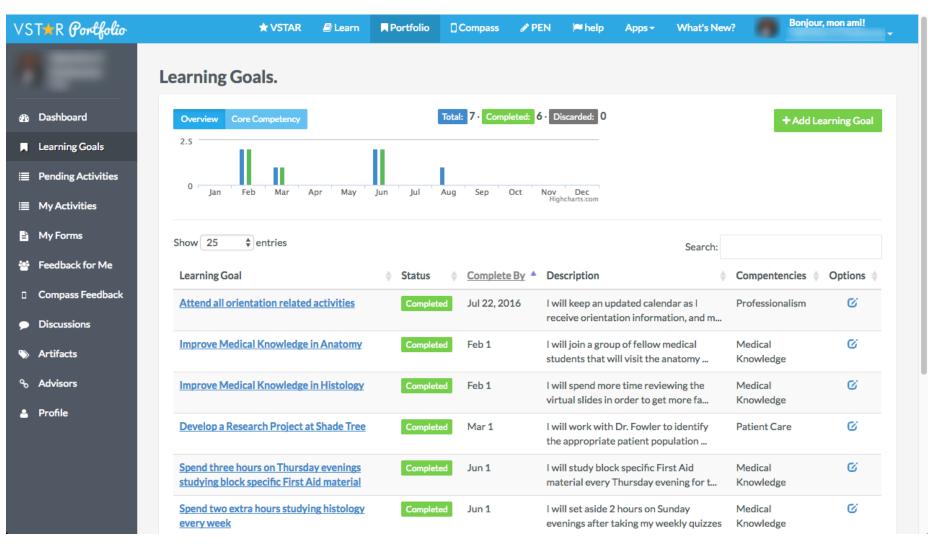
# SDL/ILP Workgroup Proposal Summary

- 1. Orient matriculating students to self-directed learning during Immersion (as part of 'Science of Successful Learning' session). Include discussion of benefits, steps in the process, and our expectations during the pre-clerkship phase.
- 2. After IHD unit, students will be required to enter a reflection including learning goals, an honest self-assessment of strengths and weaknesses, plans/strategies/resources to achieve each goal, and description of assessment or tool that will be used to measure progress towards each goal. Students will receive initial formative feedback at this point.
- 3. After each subsequent unit, students will enter an updated reflection, revise and/or create new goals, strategies, resources, etc.
- 4. At beginning of year 2, students will provide a summary reflection, including a self-assessment of their overall SDL/ILP skills, and new goal setting for year 2. An assigned faculty coach/mentor will complete an assessment rubric on the student's SDL skills.
- 5. Similar sequence of activities (steps 2-4 above) over the course of year 2, with an end-of-pre-clerkship assessment of student's development in the 'Practice-Based Learning and Improvement' and 'Personal/Professional Development' competency domains. Could be included in overall summative professional assessment by college mentors.

# Technical wants/needs

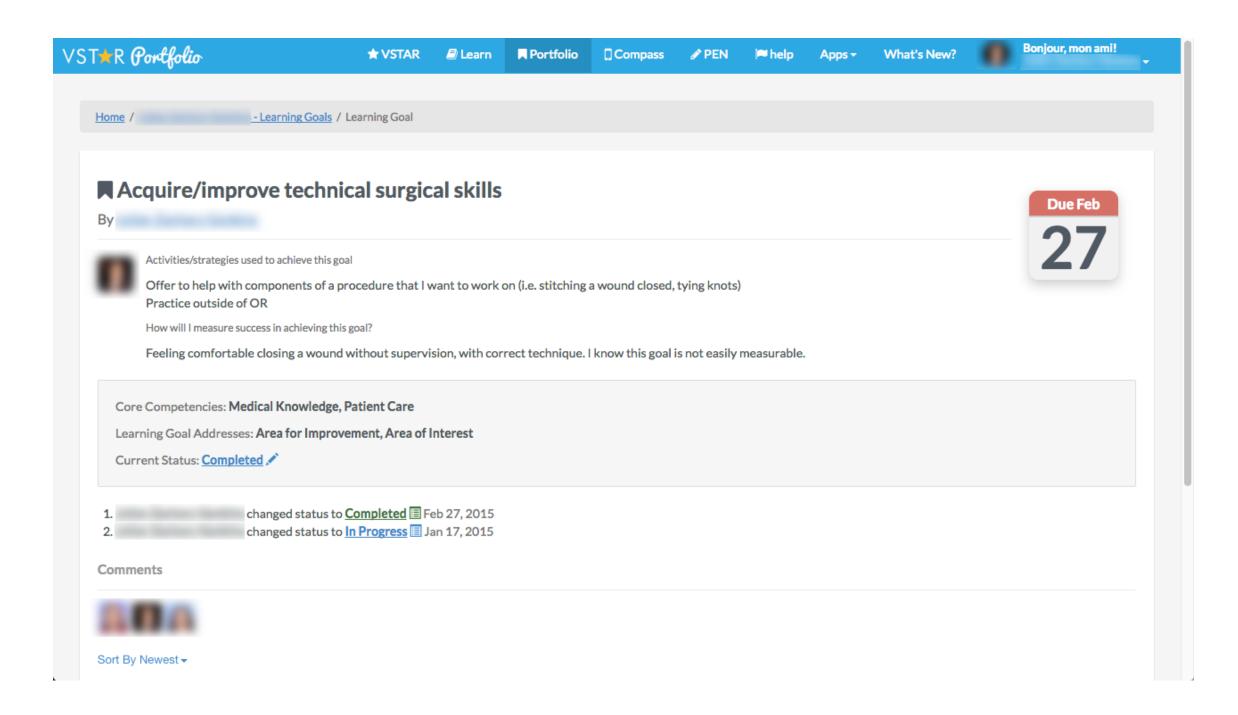
- Platform/dashboard for students to:
  - Enter reflection including an honest self-assessment of strengths and weaknesses
  - Articulate learning goals to address weaknesses and/or areas of interest
  - Establish plans/strategies and resources to achieve each goal
  - Description of assessment or tool that will be used to measure progress towards each goal
- Platform/dashboard for faculty coaches to:
  - Provide formative feedback on student progress
  - Provide overall end-of-year feedback on student's SDL skills

# Example dashboard – Vanderbilt's VSTAR



# Key elements:

- List of one or more self-identified learning goals
- For each goal:
  - Identification of relevant PLFSOM PGO
  - Description of activities/strategies/resources
  - Timeline for completion
  - Description of how goal achievement will be measured



# SDL/ILP Template

- 1) Self-assessment:
  - In reflecting on your current growth and development as a medical student:
    - what specific area(s) have you identified for improvement?
    - why have you chosen these areas?
- 2) What are your learning or professional development goals? To which PLFSOM educational program goals/objectives (PGOs) do your personal goals map?
- 3) What is your plan to meet your goals? (include a timeline as well as specific activities and resources to achieve your goals)
- 4) How will you measure success in achieving these goals?
- 5) Summary of updates to ILP:
  - What changes did you make to your goals and/or measurable outcomes?
  - Why did you make these changes?

# Self-Directed Learning (SDL) Plan Rubric Date:\_\_\_\_\_ Student Name:\_\_\_\_\_ College: \_\_\_\_\_ Faculty Reviewer: \_\_\_\_\_\_ Signature: \_\_\_\_\_ Acceptable **Needs Improvement** Self-assessment summary ☐ Student has written a detailed reflective ☐ Student has not written a detailed selfsummary assessment summary ☐ Identifies one or more areas for focused ☐ Does not identify one or more areas for focused improvement improvement ☐ Is substantiated by evidence ☐ Supporting evidence is lacking or (assessment data, feedback, etc.) unclear **Learning Goals** ☐ Student has clearly articulated goals Goals are unclear, difficult to measure, that are derived from their selfor incongruent with self-assessment assessment **Learning Strategies** ☐ Student has identified appropriate ☐ Strategies are unclear or misaligned strategies to achieve these goals with goals Resources not identified or are of ☐ Student has identified appropriate Resources credible resources to support goals questionable credibility Overall evaluation of self-Developed ☐ Still developing directed learning skills

Comments:



# Review of Pre-Clerkship Phase Attendance Policy

CEPC Meeting 7/10/23 Dr. Tanis Hogg





# **Medical Education Program Policy**

Policy Name:	Pre-clerkship phase attendance policy				
Policy Domain:	Student attendance/curriculum engagement/professionalism		Refers to LCME Element(s):	3.5, 9.9, 10.3	
Approval Authority:	Curriculum and Educational Policy Committee (CEPC)	Adopted:	4/15/2019	Date Last Reviewed:	4/9/2019
Responsible Executive:	Associate Dean for Student Affairs	Date Last Revised:	4/9/2019		
Responsible Office:	PLFSOM Office of Student Affairs	Contact:	mbabic@ttuhsc.edu;PLFSOM Office of Medical Education (pending identification of an individual in the PLFSOM Office of Student Affairs)		

# Key elements

- Relates student attendance to and participation in required preclerkship activities to professionalism, related PGOs, and associated LCME accreditation elements
- Establishes responsibilities and processes for requesting excused absences (planned or unplanned)
- Establishes school and faculty responsibilities regarding management and communication of expectations and concerns related to attendance
- Defines processes related to missed critical summative assessments
- Defines absence limits that trigger referral to ADSA and/or GPC

# Proposed revisions

- Transfer the general day-to-day monitoring/reporting of absences and management of absence requests from OSA to OME/DME
- Update the process for students requesting/reporting absences (from e-mail to web-based system)
- Bring total number of allowed absences per semester/year into closer alignment with other programs

# Original Policy Statements

"...any student with **5 or more absences during any pre-clerkship phase semester**, regardless of cause, shall be required to meet in person with the Associate Dean of Student Affairs (or their designee)..."

"...any student with **10 or more absences during any pre-clerkship phase semester**, regardless of cause, shall be referred by the Associate Dean for Student Affairs to the GPC for review..."

# Example pre-clerkship attendance policies with defined limits

- TTUHSC SOM (Lubbock) (<a href="https://www.ttuhsc.edu/medicine/documents/policies/SOMOP40.02.pdf">https://www.ttuhsc.edu/medicine/documents/policies/SOMOP40.02.pdf</a>)
  - No personal days
  - No more than four (4) excused absences permitted per academic year
  - No unexcused absences permitted
  - Students with any unexcused absence, or with greater than four (4) excused absences in one academic year are referred to Student Conduct Administrator of Student Promotions and Professional Conduct Committee for possible disciplinary action
- Harvard Medical School (<a href="https://medstudenthandbook.hms.harvard.edu/202-attendance">https://medstudenthandbook.hms.harvard.edu/202-attendance</a>)
  - No personal days
  - No more than five (5) absences permitted over the course of the pre-clerkship phase (14 months)
  - Students with ANY unreported absence, or with greater than five (5) absences over the course of the pre-clerkship phase, will trigger meeting with society advisory dean, referral to the Council of Academic Societies, and possible referral to the Promotion and Review Board

# Example pre-clerkship attendance policies

# With undefined limits:

- UT Dell Medical School (<a href="https://utexas.app.box.com/s/xqhqlz9icyu3l1qg6py9mum9itcveeis">https://utexas.app.box.com/s/xqhqlz9icyu3l1qg6py9mum9itcveeis</a>)
  - Any absence may lead to the assignment of further work and/or makeup assignments
  - Unacceptable absences may impact a student's final grade for the associated course/clerkship/elective
  - Multiple unacceptable absences may result in referral to Professional Conduct committee, a final failing grade for the course/clerkship/elective, and the need to repeat the course/clerkship/rotation.
- Texas A&M SOM (<a href="https://medicine.tamu.edu/academics/students/docs/student-handbook.pdf">https://medicine.tamu.edu/academics/students/docs/student-handbook.pdf</a>)
  - Consequences for late arrivals or unexcused absences are administrated by the Office of Academic Affairs within "established guidelines"
  - Excessive absences may incur additional requirements of a student up to and including repetition of a course

# Other examples using 'discretionary/personal' days

- U of Arizona COM (<a href="https://medicine.arizona.edu/sites/default/files/attendance\_and\_absence\_policy\_01-15-2020.pdf">https://medicine.arizona.edu/sites/default/files/attendance\_and\_absence\_policy\_01-15-2020.pdf</a>)
  - Up to three (3) personal day passes allowed during entire pre-clerkship phase to attend to personal business, weddings, reunions, or other events not on list of recognized excused absences
  - Personal day passes may not be taken for certain activities (e.g. summative exams, IPE activities)
  - After use of three (3) personal day passes within pre-clerkship phase, any additional absence not meeting criteria for excused absence will be marked unexcused – leading to score of zero on a missed graded activity and a 10% deduction from a student's Professionalism grade for the course

# Proposed Revisions

• Reduce number of total absences triggering a review by 50%:

"...any student with **5 or more absences during any pre-clerkship phase semester an academic year**, regardless of cause, shall be required to meet in person with the Associate Dean of Student Affairs (or their designee)..."

"...any student with **10 or more absences during any pre-clerkship phase** semester an academic year, regardless of cause, shall be referred by the Associate Dean for Student Affairs to the GPC for review..."



# Step 1 Discussion

- Note: 5 students in Class of 2025 that received a fail on Step 1 who are currently enrolled in clerkship block 1
  - All will complete Block 1 and take LOA for Block 2 to study and take Step 1
- New GPAS policy set to go into effect for Class of 2026

# NBME CBSE Performance and Step 1 Eligibility

- If student achieves a score of 63 or greater on the CBSE, then student is designated as eligible to take the USMLE Step 1
- For on-time promotion to the clerkship phase, student must receive a passing score on the USMLE Step 1 exam prior to the first day of year 3 orientation
- If student does not receive a passing score prior to first day of M3 orientation, they would be placed on academic warning, referred to GPC to discuss the reasons for the delay, and their clerkship entry would be postponed

# Challenges related to Step 1

# Challenges:

- On average, approximately 1/3<sup>rd</sup> of our MS2 students did not achieve a score of 63 or higher on their end-of-year CBSE over the last two academic years
- NBME had a Step 1 score reporting blackout period beginning mid-April this year (varies from year to year). If a student doesn't take their Step 1 prior to the blackout period, their Step 1 score wouldn't be available prior to clerkship orientation in mid-May

# CBSE timeline:

- August 7, 2023 Practice CBSE
- January 9, 2024 Practice CBSE
- February 26, 2024 Distribution of 2 CBSSA vouchers (take-home CBSEs)
- March 29, 2024 End-of-year CBSE
- April 5, 2024 CBSE remediation opportunity prior to blackout period

# Proposal for AY 2023-2024

- CBSE score of ≥ 63 order to sit for Step 1 (unchanged from current policy)
- Add more flexibility in CBSE dates
  - January CBSE required
    - Score > 63 this is a passing score and student is cleared to sit for Step 1. Future CBSE administrations are optional.
    - Score < 63 student must take another CBSE and achieve a passing score prior to sitting for Step 1
  - February CBSE taken at the end of MHD Unit on 2/26/2023
    - This is required for those who still need to demonstrate a passing score
    - Score ≥ 63 this is a passing score and student is cleared to sit for Step 1. Future CBSE administrations are optional.
    - Score < 63 student must take another CBSE and achieve a passing score prior to sitting for Step 1
  - Mid-March optional CBSE for those who still need to demonstrate a passing score
    - Score ≥ 63 this is a passing score and student is cleared to sit for Step 1. Future CBSE administrations are optional.
    - Score < 63 student must take another CBSE and achieve a passing score prior to sitting for Step 1
  - March 29 CBSE required test date for all those who have not yet achieved a passing score
    - Score  $\geq$  63 this is a passing score and student is cleared to sit for Step 1. Future CBSE administrations are optional.
    - Score < 63 student must take another CBSE and achieve a passing score prior to sitting for Step 1
  - Mid-April CBSE remediation date for those who have not yet achieved a passing score
  - End of April CBSE remediation date for those who have not yet achieved a passing score.
- Passing score not achieved by end of April refer to GPC for discussion/off cycle entry in year 3
- Yearly delay in score reporting: April 13, 2023, through late May will be Wednesday, June 14, 2023
- This would require waiving the requirement for a passing score prior to orientation day

# CURRICULUM VITAE Michael E. Rytting, M.D.

### PRESENT TITLE AND AFFILIATION

# Holland Hospital, Internal Medicine/Pediatrics Attending Physician

Current

### Retired (1/1/2020)

Professor, Department of Pediatrics Patient Care, Division of Pediatrics, The Children's Cancer Hospital at The University of Texas MD Anderson Cancer Center, Leukemia/Lymphoma Section, Houston, TX

Professor, Department of Leukemia, Division of Cancer Medicine, The University of Texas MD Anderson Cancer Center, Houston, TX

### **CITIZENSHIP**

**United States** 

### **HOME ADDRESS**

2 West 19th Street, Holland, Michigan 49423

### **OFFICE ADDRESS**

Lakeshore Medical Campus 3235 North Wellness Dr. Holland, Michigan 49424

### **EDUCATION**

### **Degree-Granting Education**

Cornell University, Ithaca, NY, BA, 1985, General Biology & Spanish Literature University of Michigan, Ann Arbor, MI, MD, 1990, Medical Degree

### **Postgraduate Training**

Internship, The University of Texas MD Anderson Cancer Center, Houston, TX, 1990-1991 Residency, The University of Texas Health Science Center, Houston, TX, 1991-1994 Fellowship, University of Texas Health Science Center, Houston, TX, 1994-1997

### **CREDENTIALS**

### **Board Certification**

American Board of Pediatrics - Diplomate, 1994

American Board of Internal Medicine - Diplomate, 1995

American Board of Pediatric Hematology/Oncology - Diplomate, 1998

American Board of Pediatrics - Diplomate, 2001

### Licensures

### **Active**

Physician Permit, TX, J5465, 3/1994-8/2021

Physician Permit, MI, 1548366628, 12/20-12/22

# **EXPERIENCE/SERVICE**

### **Academic Appointments**

Attending Physician, Department of Pediatrics Patient Care, Division of Pediatrics, Driscoll Children's Hospital, Corpus Christi, TX, 1997-2000

Attending Physician, Division of Pediatrics, Pediatric Hematology/Oncology Associates of South Texas. San Antonio. TX. 2000-2001

Assistant Professor, Department of Pediatrics Patient Care, Division of Pediatrics, The University of Texas MD Anderson Cancer Center, Houston, TX, 2002-2008

Assistant Professor, Department of Leukemia, The University of Texas MD Anderson Cancer Center, Houston, TX, 2004-2008

Professor, Department of Pediatrics Patient Care, Division of Pediatrics, The Children's Cancer Hospital at The University of Texas MD Anderson Cancer Center, Leukemia/Lymphoma Section, Houston, TX. 2008-2019

Professor, Department of Leukemia, Division of Cancer Medicine, The University of Texas MD Anderson Cancer Center, Houston, TX, 2008-2019

Clinician, Internal Medicine/Pediatrics, Holland Hospital, Holland, MI 2020-present

#### **Institutional Committee Activities**

M.D. Anderson Cancer Center Institutional Review Board, Vice Chair 2004-2019

## **Principal Investigator**

## Completed

Co-Principal Investigator, 1%, A Pilot Study Evaluating the Feasibility of an Intercontinental Phase III Chemotherapy Study for Patients with Choroid Plexus Tumors, 2005-0398, International Society for Pediatric Oncology, PI - Wolff, 2005

Principal Investigator-MDACC, 1%, High Risk B-Precursor Acute Lymphoblastic Leukemia, COGAALL0323, Children's Oncology Group (COG), 2005

Principal Investigator-MDACC, 1%, To find the type of leukemia the pediatric patient has and to treat the specific subtype, COGAALL03B1, Children's Oncology Group (COG), 2005

Principal Investigator-MDACC, 1%, A Phase 1/2 Dose Escalation Study of Clofarabine in Combination with Etoposide and Cyclophosphamide in Pediatric Patient with Refractory or Relapsed Acute Leukemias, 2005-0758, Genzyme, 2006-present

Principal Investigator-MDACC, 1%, A Phase II Study of Bevacizumab and Lapatinib in Children with Recurrent or Refractory Ependymoma, CEN08-01, Genentech, 2015

#### **Protocols**

## **Institutional Principal Investigator**

Institutional Principal Investigator, Randomized Comparison of intravenous vs Oral Mercaptopurine and Dexamethasone vs Prednisone for Favorable Acute Lymphoblastic Leukemia, CCG93-1922, 1994-2007, NCI

Institutional Principal Investigator, Treatment of Children Less than 21 Years of Age with Newly Diagnosed Acute Non-Lymphocytic Leukemia (ANLL) and Myelodysplastic Syndrome (MDS), CCG93-2891, 1994-2007, NCI

Institutional Principal Investigator, Bone Marrow Transplantation versus Prolonged Intensive Chemotherapy for Children with Acute Lymphoblastic Leukemia After an Initial Bone Marrow Relapse, CCG95-1941, 1995-2006, NCI

Institutional Principal Investigator, Randomized Comparisons of Oral Mercaptopurine vs. Oral Thioguanine and Intrathecal Methotrexate vs. Inrathecal

Methotrexate/Cytarabine/Hydrocortisone for Standard Risk Acute Lymphoblastic Leukemia, CCG96-1952, 1996-2008, NCI

Institutional Principal Investigator, Extramedullary Relapse and Occult Bone Marrow Involvement in Childhood Acute Lymphoblastic Leukemia, CCG97-1951, 1997-2006, NCI

Institutional Principal Investigator, Treatment of Newly Diagnoses Acute Lymphoblastic Leukemia in Infants Less Than 1 Year of Age. CCG97-1953. 1997-2007. NCI

Institutional Principal Investigator, Phase III Study in Children with Untreated Acute Myelogenous Leukemia (AML) or Myelodysplastic Syndrome (MDS), CCG97-2961, 1997-present, NCI

Institutional Principal Investigator, Treatment of Patients with Acute Lymphoblastic Leukemia With Unfavorable Features, CCG96-1961, 1997, NCI

Institutional Principal Investigator, A Phase I Study of STI571 in PH+ Leukemia, CCG00-P9973, 2000-2006, NCI

Institutional Principal Investigator, Escalation Dose IV MTX Without Leucovorin Resingle vs Double Delayed Intensification for Children with Standard Risk ALL, CCG00-1991B, 2000-2009. NCI

Institutional Principal Investigator, Escalation Dose IV MTX Without Leucovorin Residue vs MTX and Frontline Single vs MTX and Frontline vs Double Delayed Intensification for Children with Standard Risk ALL, CCG00-1991, 2000-present, NCI

Institutional Principal Investigator, A Phase II, Open Label Study of Clofarabine in Pediatric Patients with Refractory or Relapsed Acute Lymphoblastic Leukemia, ID02-108, 2002-2008, Ilex

Institutional Principal Investigator, A Phase II, Open Label Study of Clofarabine in Pediatric Patients with Refractory or Relapsed Acute Myelogenous Leukemia, ID02-117, 2002-2009, Ilex

Institutional Principal Investigator, Classification of Acute Lymphoblastic Leukemia, COGAALL03B1, 2005-present, NCI

Institutional Principal Investigator, High Risk B-Precursor Acute Lymphoblastic Leukemia (ALL), COGAALL0232, 2005-present, NCI

Institutional Principal Investigator, AML2002: A Collaborative Trial for the Treatment of Patients with Newly Diagnosed Acute Myeloid Leukemia or Myelodysplasia, 2006-0639, 2006-2008, St. Jude Hospital

Institutional Principal Investigator, A Phase 1/2 Dose Escalation Study of Clofarabine in Combination with Etoposide and Cyclophosphamide in Pediatric Patient with Refractory or Relapsed Acute Leukemias, 2005-0758, 2006-present, Genzyme

Institutional Principal Investigator, An Observational Non-Therapeutic Study of Allergic Reactions to Rasburicase Treatment in Patients with a History of Asthma, Eczema or Allergies, 2006-059, 2007-2009, St. Jude Hospital

Institutional Principal Investigator, A Phase II Study of Bevacizumab and Lapatinib in Children with Recurrent or Refractory Ependymoma, CERN08-01, 2009-present, Genetech, GlaxoSmithKline, Collaborative Ependymoma Research Network

#### Unfunded

Principal Investigator, Patients with Granulocytic Sarcoma Treated at MD Anderson Cancer Center, RCR02-226, 2002-2006

Principal Investigator, Pediatric Biological Sample Bank, LAB01-700, 2002-2007

Principal Investigator, Plasminogen System Peptides in Pediatric Tumors, LAB02-414, 2002-2010

Principal Investigator, Myeloperoxidase Positive Acute Lymphoblastic Leukemia, RCR03-0497, 2003-2010

Principal Investigator, A Pilot Study Evaluating the Feasibility of an Intercontinental Phase III Chemotherapy Study for Patients with Choroid Plexus Tumors, 2005-0398, 2005-incomplete

Principal Investigator, Augmented Berlin-Frankfurt-Munster Therapy for Adolescents/Young Adults with Acute Lymphoblastic Leukemia or Lymphoblastic Lymphoma, 2006-0375, 2006-2012

Institutional Principal Investigator, Absolute Lymphocyte Count as a Prognostic Marker in Burkitt's Lymphoma, DR09-0080, 2009

#### **PUBLICATIONS**

## **Peer-Reviewed Original Research Articles**

- 1. **Rytting M**, Worth L, Jaffe N. Hemolytic disorders associated with cancer. Hematol Oncol Clin North Am 10(2):365-376, 1996. PMID: 8707760.
- 2. Mullen CA, Petropoulos D, **Rytting M**, Jeha S, Zipf T, Roberts WM, Rolston KV. Acute reversible arthropathy in a pediatric patient with cancer treated with a short course of ciprofloxacin for febrile neutropenia. J Pediatr Hematol Oncol 20(5):516-517, 1998. PMID: 9787333.
- 3. Mullen CA, Petropoulos D, Roberts WM, **Rytting M**, Zipf T, Chan KW, Culbert SJ, Danielson M, Jeha S, Kuttesch JF, Rolston KV. Outpatient treatment of fever and neutropenia for low risk pediatric cancer patients. Cancer 86(1):126-34, 7/1999. PMID: 10391572.
- Ravandi F, Rytting M, Osmon C, Braud EL, Roach RW, Edwards K, Winn R, Abbruzzese JL, Pazdur R. Phase II trial of 5-fluorouracil, folinic acid and recombinant alpha-2a-interferon in patients with advanced colorectal cancer. Anticancer Drugs 10(6):519-524, 7/1999. PMID: 10885898.
- 5. Mullen CA, Petropoulos D, Roberts WM, **Rytting M**, Zipf T, Chan KW, Culbert SJ, Danielson M, Jeha SS, Kuttesch JF, Rolston KV. Economic and resource utilization analysis of outpatient management of fever and neutropenia in low-risk pediatric patients with cancer. J Pediatr Hematol Oncol 21(3):212-18, 1999. PMID: 10363854.
- 6. **Rytting M**, Pearson P, Raymond AK, Ayala A, Murray J, Yasko AW, Johnson M, Jaffe N. Osteosarcoma in preadolescent patients. Clin Orthop Relat Res 373:39-50, 4/2000. PMID: 10810461.
- 7. Jeha S, Gandhi V, Chan KW, McDonald L, Ramirez I, Madden R, **Rytting M**, Brandt M, Keating M, Plunkett W, Kantarjian H. Clofarabine, a novel nucleoside analog, is active in pediatric patients with advanced leukemia. Blood 103(3):784-789, 2/2004. PMID: 14551141.
- 8. **Rytting M**. Pediatric myelodysplastic syndromes. Current Hematology Reports 3(3):173-177, 5/2004. PMID: 15087064.
- 9. **Rytting M**, Wierda WG. Central nervous system relapse in two patients with chronic myelogenous leukemia in myeloid blastic phase on imatinib mesylate therapy. Leukemia/Lymphoma 45(8):1623-1626, 8/2004. PMID: 15370215.
- 10.Bonate PL, Craig A, Gaynon P, Gandhi V, Jeha S, Kadota R, Lam GN, Plunkett W, Razzouk B, **Rytting M**, Steinherz P, Weitman S. Population pharmacokinetics of clofarabine, a second-generation nucleoside analog, in pediatric patients with acute leukemia. J Clin Pharmacol 44(11):1309-22, 11/2004. PMID: 15496649.
- 11. Corey S, Elopre M, Weitman S, Rytting ME, Robinson L, Rumelhart S, Goldman F. Complete remission following clofarabine treatment in refractory juvenile myelomonocytic leukemia. J Pediatr Hematol Oncol 27(3):166-168, 2005. PMID: 15750451.
- 12.Jeha S, Gaynon PS, Razzouk BI, Franklin J, Kadota R, Shen V, Luchtman-Jones L, Rytting M, Bomgaars LR, Rheingold S, Ritchey K, Albano E, Arceci RJ, Goldman S, Griffin T, Altman A, Gordon B, Steinherz L, Weitman S, Steinherz P. Phase II Study of clofarabine in pediatric patients with refractory or relapsed acute lymphoblastic leukemia. Journal of Clinical Oncology 24(12)(12):1917-1922, 4/2006. PMID: 16622268.
- 13.Razzouk BI, Estey E, Pounds S, Lensing S, Pierce S, Brandt M, Rubnitz JE, Ribeiro RC, **Rytting M**, Pui CH, Kantarjian H, Jeha S. Impact of age on outcome of pediatric acute myeloid leukemia: a report from 2 institutions. Cancer 106(11):2495-502, 6/2006. PMID: 16639734.
- 14. Garcia-Manero G, Kantarjian HM, Sanchez-Gonzalez B, Yang H, Rosner G, Verstovsek S, **Rytting M**, Wierda WG, Ravandi F, Koller C, Xiao L, Faderl S, Estrov Z, Cortes J, O'Brien S, Estev E, Bueso-Ramos C, Fiorentino J, Jabbour E, Issa JP. Phase 1/2 study of the

- combination of 5-aza-2'-deoxycytidine with valproic acid in patients with leukemia. Blood 108:3271-3279, 11/2006, PMID: 16882711.
- 15. **Rytting ME**, Kantarjian H, Albitar M. Acute lymphoblastic leukemia with Burkitt-like morphologic features and high myeloperoxidase activity. Am J Clin Pathol 132(2):182-5, 8/2009. PMID: 19605811.
- 16.Jeha S, Razzouk B, Rytting M, Rheingold S, Albano E, Kadota R, Luchtman-Jones L, Bomgaars L, Gaynon P, Goldman S, Ritchey K, Arceci R, Altman A, Stine K, Steinherz L, Steinherz P. Phase II Study of Clofarabine in Pediatric Patients with Refractory or Relapsed Acute Myeloid Leukemia. J Clin Oncol 27(26):4392-7, 9/2009. e-Pub 8/2009. PMCID: PMC2744276.
- 17. Hijiya N, Gaynon P, Barry E, Silverman L, Thomson B, Chu R, Cooper T, Kadota R, Rytting M, Steinherz P, Shen V, Jeha S, Abichandani R, Carroll WL. A Multi-center Phase I Study of Clofarabine, Etoposide and Cyclophosphamide in Combination in Pediatric Patients with Refractory or Relapsed Acute Leukemia. Leukemia 23(12):2259-2264, 12/2009. e-Pub 9/2009. PMID: 19741725.
- 18. **Rytting M**. Peg-asparaginase for acute lymphoblastic leukemia. Expert Opin Biol Ther 10(5):833-9, 5/2010. PMID: 20345338.
- 19. Rytting M, Ravandi F, Estey E, Cortes J, Faderl S, Garcia-Manero G, Jeha S, Ouzounian S, Pierce S, Kantarjian H. Intensively Timed Combination Chemotherapy for the Induction of Adult Patients with Acute Myeloid Leukemia: Long-Term Follow-Up of a Phase 2 Study. Cancer, 7/2010. PMID: 20665501.
- 20. Green HL, **Rytting ME**, Cox CS. A Rapidly Growing Lymphoma and Tumor Lysis Syndrome in a Toddler. JAAPA 23(8):32-4, 8/2010. PMID: 20821911.
- 21.Faderl S, Thomas DA, O'Brien S, Ravandi F, Garcia-Manero G, Borthakur G, Ferrajoli A, Verstovsek S, Ayoubi M, **Rytting M**, Feliu J, Kantarjian HM. Augmented hyper-CVAD based on dose-intensified vincristine, dexamethasone, and asparaginase in adult acute lymphoblastic leukemia salvage therapy. Clin Lymphoma Myeloma Leuk 11(1):54-9, 2/2011. PMID: 21454191.
- 22.Bonate PL, Cunningham CC, Gaynon P, Jeha S, Kadota R, Lam GN, Razzouk B, **Rytting M**, Steinherz P, Weitman S. Population Pharmacokinetics of Clofarabine and its Metabolite 6-ketoclofarabine in Adult and Pediatric Patients with Cancer. Cancer Chemother Pharmacol 67(4):875-90, 4/2011. e-Pub 6/2010. PMID: 20582417.
- 23. Wolff JE, **Rytting M**, Vats T, Ater J, Mahajan A, Woo S, Ketonen L, Kuttesch J, Liu D, Thall P, Chang EL. Induction treatment for diffuse intrinsic pontine glioma, experience of M.D. Anderson Cancer Center. Anticancer Res 31(6):2265-9, 6/2011. PMID: 21737651.
- 24.Stock W, Douer D, Deangelo DJ, Arellano M, Advani A, Damon L, Kovacsovics T, Litzow M, **Rytting M**, Borthakur G, Bleyer A. Prevention and management of asparaginase/pegasparaginase-associated toxicities in adults and older adolescents: recommendations of an expert panel. Leuk Lymphoma. e-Pub 8/2011. PMID: 21827361.
- 25.Subbiah V, Wolff J, Ketonen L, Ellezam B, **Rytting ME**. Advanced atypical teratoid/rhabdoid tumor (ATRT) treated with intensive multimodal approach shows continued response to sarcoma type salvage therapy. Pediatr Blood Cancer. e-Pub 9/2011. PMID: 21922648.
- 26.Wolff JE, Vats TS, **Rytting ME**, Brown R, Buryanek J, Pfister S. Preliminary Experience with Personalized Targeted Therapy. Pediatric Blood and Cancer, 12/2011. PMID: 22162424.
- 27.Wolff JE, **Rytting ME**, Vats TS, Zage PE, Ater JL, Woo S, Kuttesch J, Ketonen L, Mahajan A. Treatment of recurrent diffuse intrinsic pontine glioma: the MD Anderson Cancer Center experience. J Neurooncol 106(2):391-7, 1/2012. e-Pub 8/2011. PMID: 21858608.
- 28.Cabanillas ME, Kantarjian H, Thomas DA, Mattiuzzi GN, **Rytting ME**, Bruera E, Xiao L, Bekele BN, Foudray MC, Cortes JE. Epoetin alpha decreases the number of erythrocyte transfusions in patients with acute lymphoblastic leukemia, lymphoblastic lymphoma, and Burkitt leukemia/lymphoma: Results of a Randomized Clinical Trial. Cancer 118(3):848-55, 2/2012. e-Pub 7/2011. PMID: 21751205.
- 29. Fontanilla HP, Pinnix CC, Ketonen LM, Woo SY, Vats TS, **Rytting ME**, Wolff JE, Mahajan A. Palliative Reirradiation for Progressive Diffuse Intrinsic Pontine Glioma. Am J Clin Oncol 35(1):51-7, 2/2012. e-Pub 2/2011. PMID: 21297433.

- 30. **Rytting ME**. Lessons from ALL-REZ BFM 90: therapy for childhood leukemia based on timing and site of relapse. Curr Hematol Malig Rep 7(1):1-2, 3/2012. PMID: 22290023.
- 31.Kantarjian H, Thomas D, Jorgensen J, Jabbour E, Kebriaei P, **Rytting M**, York S, Ravandi F, Kwari M, Faderl S, Rios MB, Cortes J, Fayad L, Tarnai R, Wang SA, Champlin R, Advani A, O'Brien S. Inotuzumab ozogamicin, an anti-CD22-calecheamicin conjugate, for refractory and relapsed acute lymphocytic leukaemia: a phase 2 study. Lancet Oncol 13(4):403-11, 4/2012. e-Pub 2/2012. PMID: 22357140.
- 32.Subbiah V, Wolff J, Ketonen L, Ellezam B, **Rytting ME**. Advanced atypical teratoid/rhabdoid tumor (ATRT) treated with intensive multimodal approach shows continued response to sarcoma type salvage therapy. Pediatric Blood and Cancer 58(5):823-4, 5/2012. PMID: 21922648.
- 33.Wolff JE, Brown RE, Buryanek J, Pfister S, Vats TS, **Rytting ME**. Preliminary experience with personalized and targeted therapy for pediatric brain tumors. Pediatric Blood and Cancer 59(1):27-33. 7/2012. PMID: 22162424.
- 34.Lockhart S, McDonald L, **Rytting M**, Chan KW. Clonal cytogenetic abnormalities after tyrosine kinase inhibitor therapy in Ph+ all resolution after decitabine therapy. Pediatr Blood Cancer 59(3):573-5, 9/2012. e-Pub 9/2011. PMID: 21910215.
- 35.Georgiadou, S; Pongas Georgios; Fitzgerald N; Lewis R; **Rytting M**; Marom E; Kontoyiannis D. Invasive mold infections in pediatric cancer patients reflect heterogeneity in etiology, presentation, and outcome: a 10-year, single-institution, retrospective study. Journal of the Pediatrics Infectious Disease Society, 2012.
- 36.Dinardo CD, Gharibyan V, Yang H, Wei Y, Pierce S, Kantarjian HM, Garcia-Manero G, **Rytting M**. Impact of aberrant DNA methylation patterns including CYP1B1 methylation in adolescents and young adults with acute lymphocytic leukemia. Am J Hematol. e-Pub 6/2013. PMID: 23757320.
- 37.Kantarjian H, Thomas D, Jorgensen J, Kebriaei P, Jabbour E, **Rytting M**, York S, Ravandi F, Garris R, Kwari M, Faderl S, Cortes J, Champlin R, O'Brien S. Results of inotuzumab ozogamicin, a CD22 monoclonal antibody, in refractory and relapsed acute lymphocytic leukemia. Cancer 119(15):2728-36, 8/2013. e-Pub 4/2013. PMCID: PMC3720844.
- 38.Pinto-Patarroyo GP, **Rytting ME**, Vierling JM, Suarez-Almazor ME. Haemophagocytic lymphohistiocytosis presenting as liver failure following Epstein-Barr and prior hepatitis A infections. BMJ Case Rep 2013, 2013. e-Pub 8/2013. PMID: 23943807.
- 39. **Rytting M**, Triche L, Thomas D, O'Brien S, Kantarjian H. Initial experience with CMC-544 (inotuzumab ozogamicin) in pediatric patients with relapsed B-cell acute lymphoblastic leukemia. Pediatr Blood Cancer 61(2):369-72, 2/2014. e-Pub 9/2013. PMID: 24000241.
- 40.Piha-Paul SA, Shin SJ, Vats T, Guha-Thakurta N, Aaron J, **Rytting M**, Kleinerman E, Kurzrock R. Pediatric patients with refractory central nervous system tumors: experiences of a clinical trial combining bevacizumab and temsirolimus. Anticancer Res 34(4):1939-45, 4/2014. PMID: 24692729.
- 41. Rytting ME. Acting on minimal residual disease in ALL. Lancet Oncol 15(8):777-8, 7/2014. e-Pub 6/2014. PMID: 24924992.
- 42.Galvez Silva J, **Rytting M**. Langerhans cell histiocytosis with atypical histiocytic marrow infiltration. Blood 124(1):11, 7/2014. PMID: 25121166.
- 43.Kawedia JD, **Rytting ME**. Asparaginase in acute lymphoblastic leukemia. Clin Lymphoma Myeloma Leuk 14 Suppl:S14-7, 9/2014. PMID: 25486949.
- 44.Benton CB, Thomas DA, Yang H, Ravandi F, **Rytting M**, O'Brien S, Franklin AR, Borthakur G, Dara S, Kwari M, Pierce SR, Jabbour E, Kantarjian H, Garcia-Manero G. Safety and clinical activity of 5-aza-2'-deoxycytidine (decitabine) with or without Hyper-CVAD in relapsed/refractory acute lymphocytic leukaemia. Br J Haematol 167(3):356-65, 11/2014. e-Pub 7/2014. PMCID: PMC4198465.
- 45. Rytting ME, Thomas DA, O'Brien SM, Ravandi-Kashani F, Jabbour EJ, Franklin AR, Kadia TM, Pemmaraju N, Daver NG, Ferrajoli A, Garcia-Manero G, Konopleva MY, Cortes JE, Borthakur G, Garris R, Cardenas-Turanzas M, Schroeder K, Jorgensen JL, Kornblau SM, Kantarjian HM. Augmented Berlin-Frankfurt-Münster therapy in adolescents and young adults (AYAs) with acute lymphoblastic leukemia (ALL). Cancer 120(23):3660-8, 12/2014. e-Pub 7/2014. PMCID: PMC4239168.

- 46.Thomas DA, O'Brien S, **Rytting M**, Ravandi F, Jabbour E, Ferrajoli A, Estrov Z, Garcia-Manero G, Burger JA, Wierda W, Konopleva M, Andreeff M, Kornblau SM, Verstovsek S, Borthakur G, Kadia T, Garris R, Pemmaraju N, Daver N, Jain N, Cortes J, Kantarjian HM. Incidence of Central Nervous System (CNS) Relapse in De Novo Adult Acute Lymphoblastic Leukemia (ALL). Blood 124(21):940, 12/2014.
- 47.Daver N, Thomas D, Ravandi F, Cortes J, Garris R, Jabbour E, Garcia-Manero G, Borthakur G, Kadia T, **Rytting M**, Konopleva M, Kantarjian H, O' Brien S. Final report of a phase II study of imatinib mesylate with hyper-CVAD for the frontline treatment of adult patients with Philadelphia chromosome positive (Ph+) acute lymphoblastic leukemia. Haematologica. e-Pub 2/2015. PMID: 25682595.
- 48. Jabbour E, O'Brien S, Huang X, Thomas D, **Rytting M**, Sasaki K, Cortes J, Garcia-Manero G, Kadia T, Ravandi F, Pierce S, Kantarjian H. Prognostic factors for outcome in patients with refractory and relapsed acute lymphocytic leukemia treated with inotuzumab ozogamicin, a CD22 monoclonal antibody. Am J Hematol 90(3):193-6, 3/2015. e-Pub 1/2015. PMID: 25407953.
- 49.DeWire M, Fouladi M, Turner DC, Wetmore C, Hawkins C, Jacobs C, Yuan Y, Liu D, Goldman S, Fisher P, **Rytting M**, Bouffet E, Khakoo Y, Hwang EI, Foreman N, Stewart CF, Gilbert MR, Gilbertson R, Gajjar A. An open-label, two-stage, phase II study of bevacizumab and lapatinib in children with recurrent or refractory ependymoma: a collaborative ependymoma research network study (CERN). J Neurooncol 123(1):85-91, 5/2015. e-Pub 4/2015. PMID: 25859842.
- 50.Daver N, Boumber Y, Kantarjian H, Ravandi F, Cortes J, Rytting M, Kawedia JD, Basnett J, Culotta KS, Zeng Z, Lu H, Richie MA, Garris R, Xiao L, Liu W, Baggerly KA, Jabbour E, O'Brien S, Burger J, Bendall LJ, Thomas D, Konopleva M. A Phase I/II Study of the mTOR Inhibitor Everolimus in Combination with HyperCVAD Chemotherapy in Patients with Relapsed / Refractory Acute Lymphoblastic Leukemia. Clin Cancer Res 21(12):2704-14, 6/2015. e-Pub 2/2015. PMCID: PMC4470787.
- 51. Sandberg DI, **Rytting ME**, Zaky W, Kerr M, Ketonen L, Kundu U, Moore BD, Yang G, Hou P, Sitton C, Cooper LJ, Gopalakrishnan V, Lee DA, Thall PF, Khatua S. Methotrexate administration directly into the fourth ventricle in children with malignant fourth ventricular brain tumors: a pilot clinical trial. J Neurooncol 125(1):133-41, 10/2015. e-Pub 8/2015. PMCID: PMC4592494.
- 52.Ravandi F, O'Brien SM, Cortes JE, Thomas DM, Garris R, Faderl S, Burger JA, **Rytting M**, Ferrajoli A, Wierda WG, Verstovsek S, Champlin R, Kebriaei P, McCue DA, Huang X, Jabbour E, Garcia-Manero G, Estrov Z, Kantarjian H. Long-term follow-up of a phase 2 study of chemotherapy plus dasatinib for the initial treatment of patients with Philadelphia chromosome-positive acute lymphoblastic leukemia. Cancer 121(23):4158-64, 12/2015. e-Pub 8/2015. PMCID: PMC4666803.
- 53. Silva JG, Corrales-Medina FF, Maher OM, Tannir N, Huh WW, **Rytting M**, Subbiah V. Clinical next generation sequencing of pediatric-type malignancies in adult patients identifies novel somatic aberrations. Oncoscience 2(2):187-92, 2015. e-Pub 2/2015. PMCID: PMC4381709.
- 54. Jain N, Lamb AV, O'Brien S, Ravandi F, Konopleva M, Jabbour E, Zuo Z, Jorgensen J, Lin P, Pierce S, Thomas D, **Rytting M**, Borthakur G, Kadia T, Cortes J, Kantarjian HM, Khoury JD. Early T-cell precursor acute lymphoblastic leukemia/lymphoma (ETP-ALL/LBL) in adolescents and adults: a high-risk subtype. Blood 127(15):1863-9, 4/2016. e-Pub 1/2016. PMID: 26747249.
- 55. Rytting ME, Jabbour EJ, Jorgensen JL, Ravandi F, Franklin AR, Kadia TM, Pemmaraju N, Daver NG, Ferrajoli A, Garcia-Manero G, Konopleva MY, Borthakur G, Garris R, Wang S, Pierce S, Schroeder K, Kornblau SM, Thomas DA, Cortes JE, O'Brien SM, Kantarjian HM. Final results of a single institution experience with a pediatric-based regimen, the augmented berlin-frankfurt-münster (ABFM), in adolescents and young adults (AYA) with acute lymphoblastic leukemia (ALL), and comparison to the hyper-CVAD regimen. Am J Hematol 91(8):819-23, 8/2016. e-Pub 6/2016. PMID: 27178680.
- 56.Tamamyan GN, Kantarjian HM, Ning J, Jain P, Sasaki K, McClain KL, Allen CE, Pierce SA, Cortes JE, Ravandi F, Konopleva MY, Garcia-Manero G, Benton CB, Chihara D, **Rytting ME**, Wang S, Abdelall W, Konoplev SN, Daver NG. Malignancy-associated hemophagocytic

- lymphohisticytosis in adults: Relation to hemophagocytosis, characteristics, and outcomes. Cancer 122(18):2857-66. 9/2016. e-Pub 5/2016. PMCID: PMC5014667.
- 57.Short NJ, Kantarjian H, Jabbour E, Cortes JE, Thomas DA, **Rytting ME**, Daver N, Alvarado Y, Konopleva M, Kebriaei P, Wierda WG, DiNardo CD, Bivins C, McCue D, Richie MA, Ravandi F. A phase I study of moxetumomab pasudotox in adults with relapsed or refractory B-cell acute lymphoblastic leukaemia. Br J Haematol. e-Pub 6/2017. PMID: 28616864.
- 58. **Rytting ME**, Jabbour EJ, O'Brien SM, Kantarjian HM. Acute lymphoblastic leukemia in adolescents and young adults. Cancer 123(13):2398-2403, 7/2017. e-Pub 3/2017. PMID: 28328172.
- 59. Cuglievan B, Menegaz BA, Garces S, **Rytting ME**. Acute myeloid leukaemia masquerading as a primary CNS tumour. BMJ Case Rep 2017, 8/2017. e-Pub 8/2017. PMID: 28801332.
- 60.Pemmaraju N, **Rytting ME**. Questions on asparaginase-associated pancreatitis. Lancet Oncol 18(9):1148-1149, 9/2017. PMID: 28884687.
- 61. Jabbour E, Ravandi F, Kebriaei P, Huang X, Short NJ, Thomas D, Sasaki K, **Rytting M**, Jain N, Konopleva M, Garcia-Manero G, Champlin R, Marin D, Kadia T, Cortes J, Estrov Z, Takahashi K, Patel Y, Khouri MR, Jacob J, Garris R, O'Brien S, Kantarjian H. Salvage
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- 39. **Rytting M**. Clinical trials and drug development. 14th International Symposium on Pediatric Neuro-Oncology ISPNO, 2010.
- 40.Dhamne C, Subbiah V, Ketonen L, Mahajan A, Wolff J, Rytting M. MR Spectroscopic Findings in Bi-Thalamic Astrocytoma: A Case Report and Review of Literature. 14th International Symposium on Pediatric Neuro-Oncology ISPNO, 2010.
- 41.**Rytting ME**, Bingham R, Wolff J, Vats T. Striae and Wound Development with Bevacizumab. 14th International Symposium on Pediatric Neuro-Oncology ISPNO, 2010.
- 42.Wolff JE, Brown R, **Rytting M**, Vats T, Bingham R, Epps R, Fletcher S, Pfister S, Ketonen L, Slopis J, Nagel M, Thall P. Targeted Personalized Therapy for Pediatric Patients with Refractory Brain Tumors. 14th International Symposium on Pediatric Neuro-Oncology (ISPNO), 2010.
- 43.Bochare SU, Subbiah V, Fitzgerald N, Guller G, Manning J, Wolff J, Ketonen L, Vats T, Kumar A, Wells R, Rytting M. Unusual Case of ALK-1 Positive Primary Central Nervous System Anaplastic Large Cell Lymphoma(PCNSL) In An Immunocompetent HIV Negative Child: Case Report and Review of Literature. 14th International Symposium on Pediatric Neuro-Oncology ISPNO, 2010.
- 44.Wolff JE, **Rytting ME**, Vats TS, Zage PE, Ater JL, Woo S, Kuttesch J, Ketonen L, Mahajan A. Treatment of Recurrent Diffuse Intrinsic Pontine Glioma, Experience of MD Anderson Cancer Center. Journal of Neuro-oncology, 7/2011.
- 45. Wolff J, **Rytting M**, Vats T. Induction Treatment for Diffuse Intrinsic Pontine Glioma, Experience of M. D. Anderson Cancer Center. International Society of Pediatric Oncology Journal, 11/2011.
- 46. Rytting ME, Thomas DA, Jabbour E, Franklin ARK, Borthakur G, Faderl S, Schroeder K, Ravandi F, Garris R, Brien S, Kantarjian HM. Adolescent and Young Adult Patients with Acute Lymphoblastic Leukemia (ALL) Treated with Modified Augmented Berlin-Frankfurt-Muenster (ABFM) Therapy. Blood (53rd ASH Annual Meeting) (#1527), 2011.
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- 50. Sampson B, Triche L, **Rytting M**. Brentuximab vedotin (SGN 35): prolonged remission in a teen-ager with multiply relapsed anaplastic large cell lymphoma. Br J Hematol 159(Suppl. 1):123, 2012.
- 51. Jabbour E, O'Brien S, Thomas D, Jorgensen J, Kebriaei P, **Rytting M**, York S, Ravandi F, Kwari M, Faderl S, Rios M, Cortes J, Fayad L, Tarnai T, Wang S, Champlin R, Advani A, Kantarjian H. Inotuzumab ozogamicin (IO) a CD22 monocloonal antibody conjugated to calecheamicin, given weekly for refractory-relapse acute lymphocytic leukemia. J Clini Oncol (2012 ASCO Annual Meeting Proceedings) 30(17):6501 (#6501), 2012.
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- 53. Rytting M, Thomas D, O'Brien S, et al. Augmented Berlin Frankfurt Muenster based therapy for young adults with acute lymphoblastic leukemia (ALL). Blood (ASH Annual Meeting Abstracts) 122(21):1400 (#1400), 12/2013.
- 54.Maljevic M, Kantarjian HM, Thomas D, **Rytting M**, Dasarathula J, Borthakur G. Burger JA, Ravandi F, Jabbour E, Konopleva M, Pierce S, Brandt M, O'Brien S, Cortes JE. Incidence and outcome in adults with acute lymphoblastic leukemia with primary central nervous system involvement. Blood (ASH Annual Meeting Abstracts) 122(21):2639, 12/2013.
- 55.DeWire M, Fouladi M, Stewart C, Wetmore C, Hakins C, Jacobs C, Yuan Y, Goldman S, Fisher P, **Rytting M**, Bouffet E, Khakoo Y, Hwang E, Foreman N, Gilbert M, Gilberson R, Gajjar A. An open-label, two-stage, phse II study of bevacizumab and lapatinib in children with recurrent or refractory ependymoma: a collaborative ependymoma research network study (CERN). Neuro-Oncology 15(S1):0177, 2013.
- 56.Kawedia JD, **Rytting ME**. Asparaginase in Acute Lymphoblastic Leukemia. Clinical Lymphoma, Myeloma & Leukemia (Proceedings of Nineth International Hematologic Malignancies 2013 Conference/SOHO Supplement 2014) 14(S3):S14-S17, 9/2014.
- 57.Baljevic M, Kantarjian HM, Jyothsna D, Thomas DA, **Rytting M**, Borthakur G, Burger JA, Ravandi F, Jabbour E, Konopleva M, Pierce S, Brandt M, O'Brien SM, Cortes JE. Central nervous system relapse in adults with acute lymphoblastic leukemia. J Clini Oncol (2014 ASCO Annual Meeting Proceedings) 32(S5) (#7080), 2014.
- 58. Sasaki K, Jabbour E, O'Brien S, Huang X, Thomas D, **Rytting M**, Garcia-Manero G, Cortes J, Pierce S, Kadia T, Kantarjian H. Prognostic Factors in Patients with Refractory and Relapsed Acute Lymphocytic Leukemia (ALL) Treated with Inotuzumab Ozogamicin (IO), a CD22 Monoclonal Antibody. Clinical Lymphoma Myeloma and Leukemia (Proceedings of Twentieth International Hematologic Malignancies 2014 Conference) 15(Supplement):S172-S173, 6/2015.
- 59. Jain N, Lamb A, O'Brien S, Konopleva M, Jabbour E, Ravandi F, Zhuang Z, Jorgensen J, Lin P, Pierce S, Thomas D, Rytting M, Borthakur G, Kadia T, Cortes J, Kantarjian HM, Khoury JD. Early T-cell Precursor Acute Lymphoblastic Leukemia (ETP-ALL) in Adults: A High-Risk Subtype. Clinical Lymphoma, Myeloma & Leukemia (Proceedings of 58th Annual ASH Meeting and Exposition) 15(Supplement 2):S7, 9/2015. e-Pub 9/2015.
- 60.Tamamyan G, Kantarjian H, Sasaki K, McClain K, Allen C, Pierce S, Cortes Jorge, Konopleva M, Garcia-Manero G, Rytting M, Jain N, Abdellal W, Konoplev S, Daver N. Secondary Hemophagocytic Lymphohistiocytoisis (HLH) in Adults Patients. Clinical Lymphoma Myeloma and Leukemia (Proceedings of 58th Annual ASH Meeting and Exposition) 15(Supplement 2):S76, 9/2015.

- 61. Cuglievan B, Triche L, **Rytting M**. Castleman's Disease in a Patient with Glycogen Storage Disease Type 1A. Pediatric Blood & Cancer (SIOP 2016 Scientific Programme+Index) 63(S3):S174 (#P-0406), 11/2016.
- 62.Hernandez Tejada F, DePombo A, Quezada G, **Rytting M**. Neoadjuvant Anti-IL-6 Siltuximab Improves Resectability in Castleman Disease: A Case Report. Pediatric Blood & Cancer (SIOP 2016 Scientific Programme+Index) 63(S3):S178 (#P-0409), 11/2016.
- 63.DePombo A, Moonat H, **Rytting M**, Kontoyiannis DP, Herzog CE. Systemic Hyalohyphomycosis Infection Following Freshwater Swimming in Paediatric Ewing Sarcoma Patient on Chemotherapy: A Case Report. Pediatric Blood & Cancer (SIOP 2016 Scientific Programme+Index) 63(S3):S123 (#P-0126), 11/2016.

## **Book Chapters**

- 1. Ater JL, **Rytting M**. Rare malignant brain tumors. In: Cancers of the Nervous System. Blackwell Science, Ins., 2000.
- 2. **Rytting M**, Choroszy M, Petropoulos D. Acute Leukemia. In: Pediatric Oncology. Springer Science and Business Media, Inc., Chapter 1, pp.1-17, 2005.
- 3. Chan KW, Petropoulos D, Chang EL, **Rytting M**. Hodgkin Lymphoma and Non-Hodgkin Lymphoma. In: Pediatric Oncology. Springer Science and Business Media, Inc., Chapter 2, pp. 18-29, 2005.
- 4. **Rytting M**. Acute Lymphoblastic Leukemia in adolescents and young adults. In: Leukemias: Principles and Practice of Therapy. Ed(s) Faderl S, Kantarjian H. Wiley-Blackwell, 244, 2011. PMID: 9781405182355.
- 5. **Rytting M**. Acute Lymphoblastic Leukemia in adolescents and young adults. In: Leukemias: Principals and Practice of Therapy. Ed(s) Faderl S, Kantarjian H. Wiley-Blackwell, 2020.

## Books (edited and written)

1. **Rytting MD**. Ed(s) RS Porter, JL Kaplan. Merck Manual Consumer Version. In: Overview of Leukemia. Wiley, Hohn & Sons, Incorporated, https://www.merckmanuals.com/home/blood-disorders/leukemias/overview-of-leukemia, e-Book 2012.

#### Letters to the Editor

1. Cuglievan B, Menegaz BA, DePombo A, Morani AC, Miranda RN, **Rytting M**. A pediatric patient with glycogen storage disease type IA and Castleman disease. Pediatr Blood Cancer 64(8), 8/2017. e-Pub 12/2016. PMID: 28035790.

## Manuals, Teaching Aids, Other Teaching Publications

- 1. Podcast: Pediatric Oncology, 2014.
- 2. Video: Anterior iliac crest bone marrow aspiration, 2015.

#### Journal Reviewer

Reviewer, Pediatrics, 2007-2019

Reviewer, Journal of Clinical Oncology, 2009-2019

Journal Reviewer, Pediatric Blood and Cancer, 2009-2019

Reviewer, Haematologica, 2010-2019

## **TEACHING**

The University of Texas MD Anderson Cancer Center Formal Teaching

**Courses Taught** 

Lecturer, Nursing Conference 2011-2012

## **Clinical Residents and Fellows**

Teacher, Pediatric Fellows, 2006-present

Other Supervisory Teaching

N/A

**Teaching Outside Current Institution** 

## **Formal Teaching**

## **Courses Taught**

Instructor, A workshop of cytopenias, lymphadenopathies and childhood leukemias, St. Luke's Hospital, Manila, Philippines 2015, 2017, 2019

## **Other Formal Teaching**

Lecturer, Pediatric Resident Lectures, University of Texas Health Science Center 10/2012-10/2019 N/A

## **Clinical Residents and Fellows**

Mentor, UTHSC, Pediatric Residents and Fellows, 2006-present Teacher, UTHSC, Residents in Pediatrics, 2006-present

## **CONFERENCES AND SYMPOSIA**

## Organization of Conferences/Symposia (Include chairing session)

Leukemia in Adolescent, Leukemia 2010, Houston, TX, Chair, 2010

## Presentations at National or International Conferences Invited

ALL in Teenagers, Philippine Hematological Society, Manila, Philippines, 2008

Down Syndrome and Leukemia, Philippine Hematological Society, Manila, Philippines, 2008

ALL in Young Adults, Advances in Hematological Malignancies -Ochsner, New Orleans, LA, 2009

National Conference: ALL in Adolescents and Young Adults, Texas AYA Symposium, San Antonio, TX, 2010

Acute Myelogenous Leukemia in Children, Instituto Nacional de Cancerologia Mexico, International Academics Meetings, Cancun, Mexico, 9/2/2011

Michael E. Rytting, MD. International Conference: Treatment of Acute Lymphoblastic Leukemia, Instituto Nacional de Cancerologia Mexico, International Academics Meetings, Cancun, Mexico, 9/2/2011

Personalized targeted therapy for brain tumors, Global Academic Programs, Oslo, Norway, 2012

Michael E. Rytting, MD. Epidemiology of Pediatric Cancer: Why does it matter to pediatricians?, First St. Luke's International Conference on Pediatrics: Enhancing Pediatric Care with the Experts, St. Luke's Institute of Pediatrics and Child Health, Manila, Philippines, 10/4/2012

Michael E. Rytting, MD. Teens and Young Adults with Acute Lymphoblastic Leukemia, First St. Luke's International Conference on Pediatrics: Enhancing Pediatric Care with the Experts, St. Luke's Institute of Pediatrics and Child Health, Manila, Philippines, 10/4/2012

Michael E. Rytting, MD. The Child with Anemia, First St. Luke's International Conference on Pediatrics: Enhancing Pediatric Care with the Experts, St. Luke's Institute of Pediatrics and Child Health, Manila, Philippines, 10/4/2012

Rytting M. ALL in the young adult: pediatric vs. adult approach" (LLA en el adulto joven: enfoque pediatrico vs adulto), Associacion Colombiana de Hematologia y Ontologia, Il Congreso Colombiano de actualizacion en Hematologia y Oncologia Clinica, Medellin, Colombia, 11/16/2012

Rytting M. Minimal Residual Disease in adult ALL: Diagnosis, prognosis and treatment (Enfermedad Minima Residual en LLA del adulto: Diagnostico, Pronostico y manejo), Associacion Colombiana de Hematologia y Ontologia, II Congreso Colombiano de actualizacion en Hematologia y Oncologia Clinica, Medellin, Colombia, 11/16/2012

Leukemia in Adult Patients with Down Syndrome, Instituto Nacional de Cancerologia Mexico, International Academics Meetings, Cancun, Mexico, 9/2013

ALL in the young adult: pediatric vs. adult approach, XXI Congreso de la Agrapacion Mexicana de Oncohematologia Pediatrica, Mexico City, Mexico, 2015

Philippine Pediatric Hematology Society, Manila, Philippines, Multiple lectures, 2015, 2017, 2019

SOHO. MTP Session II: ALL, The Situation of Adolescent and Young Adults with ALL, 2016 Society of Hematologic Oncology (SOHO) Annual Meeting, Houston, TX, 9/7/2016

Multiple Presentations in Mexico City, Morelia and San Luis Potosi, Mexico.

## Other, Including Scientific Exhibitions

National Conference: ALL in Young Adults, Advances in Hematological Malignancies-Ochsner, New Orleans, LA, 2009

National Conference: Leukemia in Adolescents, Leukemia, Houston, TX, 2010

Cuglievan B, Triche L, **Rytting M**. E-Poster, Castleman's Disease in a Patient with Glycogen Storage Disease Type 1A, 48th Congress of the International Society of Paediatric oncology (SIOP), Dublin, Ireland, 10/20/2016

Hernandez Tejada F, DePombo A, Quezada G, **Rytting M**. E-Poster, Neoadjuvant Anti-IL-6 Siltuximab Improves Resectability in Castleman Disease: A Case Report, 48th Congress of the International Society of Paediatric oncology (SIOP), Dublin, Ireland, 10/20/2016

DePombo A, Moonat H, **Rytting M**, Kontoyiannis DP, Herzog CE. E-Poster, Systemic Hyalohyphomycosis Infection Following Freshwater Swimming in Paediatric Ewing Sarcoma Patient on Chemotherapy: A Case Report, 48th Congress of the International Society of Paediatric oncology (SIOP), Dublin, Ireland, 10/20/2016

#### **Seminar Invitations from Other Institutions**

B-cell Disease 1, Grand Rounds, University of Texas Health Science Center, Pathology, Houston, TX, 11/1996

Childhood Cancer, Texas Perinatal Association, Pediatrics, Houston, TX, 10/1997

B-cell lymphomas in Children, Grand Rounds, Driscoll Children's Hospital, Pediatrics, Corpus Christi, TX, 11/1997

Common Abdominal Malignancies in Children, Grand Rounds, Victoria De Tar Hospital Family Practice, Pediatrics, Victoria, TX, 12/1997

Nutritional Anemias, Grand Rounds, Driscoll Children's Hospital, Pediatrics, Corpus Christi, TX, 10/1998

Pediatric Non-Hodgkin's Lymphomas, Invited Speaker, Methodist Southwest Children's Hospital, Pediatrics, San Antonio, TX, 3/2001

Pediatric Leukemia, Invited Speaker, Midland Memorial Hospital, Pediatrics, Midland, TX, 2005

Pediatric Grand Rounds: Pediatric Lymphomas, University of Texas, Health Science Center, Houston, TX, 10/30/2012

Teaching module for recognizing leukemia and lymphoma in pediatric patients, Saint Luke's College of Medicine, Quezon City, Shangri-La, Manila, Philippines, 9/4/2015

ALL in the young adult: pediatric vs. adult approach, United2Cure Children Foundation, Congreso Colombiano de actualizacion en Hematologia y Oncologia Clinica, Medellin, Panama, 8/18/2016

Pediatric Leukemia, Gabriel Mena, MD, United2Cure Children Foundation, Medellin, Panama, 8/19/2016

Pediatric Leukemia, Morelia Pediatric Society, Hospital Star Médica Morelia Children's Hospital, Morelia, Mexico, 9/22/2016

Lymphoma advances in pediatrics, Morelia Pediatric Society, Hospital Star Médica Morelia Children's Hospital. Morelia. Mexico. 9/23/2016

Periorbital Tumors, Morelia Pediatric Society, Star Médica Morelia Children's Hospital, Morelia, Mexico, 9/24/2016

## Other Presentations at State and Local Conferences

Resident QI project presentation for continuity clinics, University of Texas Health Science Center at Houston, Pediatrics, Houston, TX, 10/11/2011

Resident QI project presentation for continuity clinics, Resident QI project presentation for continuity clinics, University of Texas Health Science Center at Houston, Pediatrics, Houston, TX, 10/25/2011

Rytting M. Pediatric Lymphomas, Pediatrics Grand Rounds, The University of Texas Health Science Center of Houston, Pediatrics, Houston, TX, 10/30/2012

#### PROFESSIONAL MEMBERSHIPS/ACTIVITIES

# Professional Society Activities, with Offices Held National and International

American Society of Clinical Oncology

American Society of Hematology

American Society of Pediatric Hematology/Oncology

Philippine Pediatric Hematology/Oncology Society

## **UNIQUE ACTIVITIES**

- 1. Pediatric Cancer Camp Doctor -- 25 years
- 2. Spanish Speaker
- 3. I, along with Dr. Gabriel Mena, initiated a program to place central lines in children in developing countries to help with chemotherapy administration
- 4. Honorary member, Philippine Pediatric Hematology/Oncology Society

## **DATE OF LAST CV UPDATE**

5/8/2021

# ARTEMIY KOKHANOV, MD CURRICULUM VITAE

Mailing address: Email:

4800 Alberta Ave <u>akokhanov@yahoo.com</u>
El Paso, TX 79905 <u>akokhano@ttuhsc.edu</u>

**EXPERIENCE** 

02/2023 – current Texas Tech University Health Sciences Center El Paso

Paul L. Foster School of Medicine

Department of Pediatrics, Division of Neonatology

Assistant Professor of Pediatrics

08/2021 - 01/2023 Pediatrix Medical Group of California

Coastal Neonatology Practice

Neonatologist

08/2021 – 01/2023 MemorialCare Miller Children's and Women's Hospital Long Beach

Long Beach, CA Neonatologist

08/2021 - 01/2023 Providence Saint John's Health Center

Santa Monica, CA Neonatologist

08/2022 - 01/2023 Martin Luther King Jr. Community Hospital

Los Angeles, CA

Consulting Neonatologist

04/2019 - 08/2021 After Hours Pediatrics, Inc

Thousand Oaks, CA *Urgent Care Pediatrician* 

**EDUCATION:** 

07/2018 - 06/2021 University of California Los Angeles, David Geffen School of Medicine

Mattel Children's Hospital

Los Angeles, CA

Fellowship in Neonatal-Perinatal Medicine

07/2017 - 06/2018 Nassau University Medical Center

East Meadow, NY

Chief Residency in Pediatrics

07/2015 - 06/2018 Nassau University Medical Center

East Meadow, NY Residency in Pediatrics

09/2007 – 06/2013 A.I. Evdokimov Moscow State University of Medicine and Dentistry

Moscow, Russia

Doctor of Medicine

## LICENSURE:

California Physician and Surgeon, # A155154 (Exp. 01/31/2024) Texas Physician, # U1062 (Exp. 02/28/2024) DEA #FK7884922

## **BOARD CERTIFICATION:**

American Board of Pediatrics (2018) American Board of Pediatrics (2022)

## **PROFESSIONAL ACTIVITIES:**

## Workplace experience

12/2021 – 12/2022	Quality Improvement: Development and implementation of the patent ductus arteriosus management guideline.  MemorialCare Miller Children's and Women's Hospital, Long Beach CA
01/2022 – 01/2023	Extremely low birthweight program physician MemorialCare Miller Children's and Women's Hospital, Long Beach CA
08/2021 - 01/2023	Transport Physician, Pediatric Transport Team MemorialCare Miller Children's and Women's Hospital, Long Beach CA
08/2021 – 01/2023	Vascular access team MemorialCare Miller Children's and Women's Hospital, Long Beach CA

## **University and Hospital Committees:**

07/2020 – 06/2021	Chief Fellow, Division of Neonatology and Developmental Biology, David Geffen School of Medicine at UCLA, Los Angeles, CA
07/2019 – 06/2021	Transport Physician, Pediatric Critical Care Transport Team, David Geffen School of Medicine at UCLA, Los Angeles, CA
07/2019 – 06/2021	Quality Improvement Committee, David Geffen School of Medicine at UCLA, Los Angeles, CA
07/2017 – 06/2018	Clinical Informatics Committee, Nassau University Medical Center, East Meadow, NY

## **HONORS AND AWARDS:**

07/2017 – 06/2018	Beth Seaton outstanding resident of the year award Nassau University Medical Center, East Meadow, NY
07/2016 – 06/2017	Beth Seaton outstanding resident of the year award Nassau University Medical Center, East Meadow, NY
12/2012	Certificate of appreciation for "Excellent academic achievements and active participation of the social life of the university"  Moscow State University of Medicine and Dentistry, Moscow, Russia

## **ADDITIONAL FELLOWSHIP ACTIVITIES:**

01/2020 – 06/2021	Primary Scholarly Project: Proportion of infants with congenital diaphragmatic hernia that needed extracorporeal life support and risk factors associated with it.
01/2019 – 06/2021	Primary Quality Improvement Project: Improving adherence to desired oxygen saturation targets in premature infants.
07/2019 – 06/2021	Secondary Scholarly Project: Association of retinopathy of prematurity with neurodevelopmental outcomes
03/2020	Neonatal resuscitation student assessments at UCLA David Geffen School of Medicine, Los Angeles, CA

## **PUBLICATIONS/BIBLIOGRAPHY:**

## **Publications:**

- 1. Joshi R, Myers E, **Kokhanov A**. Congenital Disorders of Red Blood Cells. Neoreviews. 2022 Dec 1;23(12):e813-e828. doi: 10.1542/neo.23-12-e813. PMID: 36450647
- 2. Kokhanov A. Congenital disorders of red blood cells NeoBriefs. NeoReviews 2022 Dec 1.
- 3. **Kokhanov A**, Lau C, Garg M, et al. ECMO utilization in infants with congenital diaphragmatic hernia in the USA. World Journal of Pediatric Surgery 2022;5:e000393. doi: 10.1136/wjps-2021-000393
- 4. **Kokhanov A**. Congenital Abnormalities in the Infant of a Diabetic Mother. NeoReviews. 2022 May 1;23(5):e319-e327. PMID: 35490182
- 5. Gundlach BS, **Kokhanov A**, Altendahl M, et al. Real-world visual outcomes of laser and anti-VEGF treatments for retinopathy of prematurity. Am J Ophthalmol. Published online November 14, 2021:S0002-9394(21)00595-X. PMID: 34788594
- Altendahl M, Sim MS, Kokhanov A, Gundlach B, Tsui I, Chu A. Severe Retinopathy of Prematurity Is Not Independently Associated With Worse Neurodevelopmental Outcomes in Preterm Neonates. Front Pediatr. 2021 Jun 10;9:679546. PMID: 34178895
- 7. **Kokhanov A**, Kumar P and Verma R. Could Increased Pyloric Transit time Differentiate Early Onset Infantile Hypertrophic Pyloric Stenosis: a Case Study and Review. Journal of Pediatrics and Neonatal Care. 2017, Apr; 6(5): 00259

## **Book chapters:**

1. **Artemiy Kokhanov**, Ye He, Pooja Nikki Bisarya and Irena Tsui. Optical Coherence Tomography in Retinopathy of Prematurity. Book title: Optical Coherence Tomography - Developments and Innovations in Ophthalmology. *Accepted for publication on March 13, 2023 by IntechOpen*.

#### **Poster Presentations:**

1. **Joshi R, Danon S,** Kokhanov A. Standardizing Management of Patent Ductus Arteriosus in a Regional Neonatal Intensive Care Unit: A Quality Improvement Initiative. 29th Annual Cool Topics in Neonatology Conference, San Diego, CA, March 2023

- 2. **Kokhanov A**, Garg M, Jen H, Vangala S, Chung U, Chu A. Validation and Use of the Congenital Diaphragmatic Hernia Study Group (CDHSG) Clinical Prediction Model. NeoHeart conference, Anaheim, CA, August 2022
- 3. Neary M, **Kokhanov A.** An unusual case of MIS-C in a neonate. NeoHeart conference, Anaheim, CA, August 2022
- 4. **Kokhanov A**, Lau C, Chu A, Garg M, Jen H. Proportion of congenital diaphpragmatic hernia that needed ECMO in the United States. Pediatric Academic Societies 2021 Virtual Meeting, May 2021. EP-186.1566
- 5. Gundlach B, **Kokhanov A**, Altendahl M, Khitri M, Chu A, Tsui I. Retinopathy of Prematurity: A Longitudinal Prospective Study of Vision Outcomes in Premature Infants. 2021 Association for Research in Vision and Ophtalmology virtual meeting, May 2021
- 6. **Kokhanov A,** Altendahl M, Tsui I and Chu A. Type 1, but not type 2 retinopathy of prematurity is associated with worse Bayley-III cognitive and motor scores. Accepted for poster presentation at 2020 Pediatric Academic Societies meeting in Philadelphia, PA in May 2020 (meeting cancelled due to COVID19 pandemic)
- 7. Wong B, Chu A, Zoppi N, Manoharan N, **Kokhanov A**, Huang A and Tsui I. Cystoid macular edema on optical coherence tomography correlated with worse intraventricular hemorrhage in preterm neonates. Accepted for poster presentation at 2020 Association for Research in Vision and Ophthalmology meeting in Baltimore, MD in May 2020 (meeting cancelled due to COVID19 pandemic)
- 8. Altendahl M, Tsui I, **Kokhanov A**, Dhindsa Y and Chu A. Is Retinopathy of Prematurity an Independent Risk Factor for Neurodevelopmental Outcomes? Accepted for poster presentation at 2020 Association for Research in Vision and Ophthalmology meeting in Baltimore, MD in May 2020 (meeting cancelled due to COVID19 pandemic)
- Kokhanov A, Ashkar H, Aslam A and Verma R. Painful purple digit syndrome rare complication of Candida antigen therapy of common warts. NUMC eleventh annual academic research day; May 11, 2018; East Meadow, NY

## OTHER WORKPLACE EXPERIENCE:

10/2014 – 06/2015	Observer and volunteer, MedStar Georgetown University Hospital, Child Development Clinic, Washington, DC
06/2014 - 06/2015	Observer and volunteer, MedStar Georgetown University Hospital, Division of General Internal Medicine, Washington, DC
09/2014	Observer, MedStar Georgetown University Hospital, Division of Rheumatology, Washington, DC
09/2014	Observer, MedStar Georgetown University Hospital, Division of Pulmonary, Critical Care and Sleep Medicine, Washington, DC
09/2012 – 06/2013	Lecture program, First Open Institute for Regenerative Medicine, Moscow, Russia
07/2011	Professional exchange program, Centre Hospitalier Regional Hôpital Nord, Division of OMFS and Plastic Surgery, Marseille, France

FOREIGN LANGUAGES: Russian (native), Portuguese (fluent), French (basic)

**HOBBIES AND INTERESTS:** Jazz and classical music, swimming, collecting pocket calendars, motorsports, car tuning.

## Hugo K. Kato

## **Curriculum Vitae**

## **Personal Information**

Birthdate: 9/17/1987

Place of Birth: Ciudad Juarez, Chihuahua Mexico

Department Of Pediatrics Texas Tech University Health Sciences Center PLFSOM

4801 Alberta Avenue

El Paso, TX, 79905

Phone: (915) 424-8383, (915) 215-5700

Hkatoben@ttuhsc.edu

## **Education and Post Graduate Training**

2017 - 2020 Washington University in St Louis, St Louis MO

St Louis Children's Hospital

Neonatal-Perinatal Medicine Fellowship

2014 - 2017 St Louis University School of Medicine, St Louis MO

SSM Cardinal Glennon Children's Hospital

Pediatric Residency

2010 - 2014 Texas Tech University Health Sciences Center, Lubbock/Odessa TX

**Doctor of Medicine** 

2006 - 2010 University of Texas at El Paso, El Paso, TX

Bachelor of Science, Cum Laude

Major: Biology, Minor: Chemistry

## **Present Position**

2020 - Current Assistant Professor Department of Pediatrics of Texas Tech University Health Sciences

Center Paul L Foster School of Medicine

## **Board Certification**

2017 - Current American Board of Pediatrics General Pediatrics Board Certification #119906

2022 - Current American Board of Pediatrics Neonatal-Perinatal Medicine Board Certification #7544

## **Medical Licensure**

2020 - Current Texas Medical Board Medical License #S6224

#### **Certifications**

2018 - Current Individual DEA # FK7645938

2014 - Current Neonatal Resuscitation Program

#### Research experience

2018 – 2020 Division of Pediatric Gastroenterology and Nutrition, Washington University School of

Medicine

Mentor: Mark Lowe MD, Ph.D.

Investigation of molecular mechanisms of fat digestion & impact of common pancreatic

lipase mutation on infant growth and acinar cell mRNA signatures

2016 – 2017 Division of Neonatology, St Louis University School of Medicine

Mentor: Robert Brooker MD

Retrospective assessment of impact of contrast administration for voiding

cystourethrograms on TSH levels of infants admitted to NICU

June 2008 - June 2010 Department of Biological Sciences, University of Texas El Paso

Mentor: Rosa Amelia Maldonado Ph.D.

Howard Hughes Medical Institute Undergraduate Research Fellow- Application of molecular techniques to characterize potential therapeutic targets in pathogen *T. Cruzi* 

## **Publications**

Jaimie B Glick, Brittany G Craiglow, Keith A Choate, Hugo Kato, Robert E Fleming, Elaine Siegfried, Sharon A Glick. Improved Management of Harlequin Ichthyosis with Advances in Neonatal Intensive Care *Pediatrics* 2017;139(1)e20161003

## **Poster Sessions**

Spring 2020 accepted, conference canceled

Pediatric Academic Societies Meeting – Protein concentrations in expressed breast milk from mothers of preterm infants and correlation with NICU growth velocity

April 2019

Washington University Pediatric Research Retreat - A Common Lipase Variant in PNLIPRP2 Impacts Growth of Newborns: A Pilot Study

## **Resident Teaching Awards**

2023 Excellence In Teaching

2022 Evidence Based Medicine Teaching Awards

#### **Professional Societies**

Member, American Academy of Pediatrics

#### KELCY STEFFEN-GUTIERREZ, M.D.

1413 Stone Pointe Way, El Paso TX 79936 | 817-937-6359 | Kelcy.steffen@gmail.com

#### **EDUCATION**

Texas Tech University Health Sciences Center El Paso Paul L. Foster School of Medicine

Doctor of Medicine July 2015 – May 2019

The University of Texas at Arlington

B.S. Biology – Magna Cum Laude August 2011 – December 2014

**Honors College** 

#### **AWARDS**

Gold Humanism Honor Society 2018

TTUHSC El Paso 7<sup>th</sup> Annual Learning Symposium Best Oral Presentation February 2017
TTUHSC El Paso 7<sup>th</sup> Annual Learning Symposium Best Poster Presentation February 2017
Outstanding Second Year Resident 2020-2021 June 2021
Medical Student Teaching Award June 2023
SASGOG 2023 Resident Award June 2023

#### WORK EXPERIENCE

Texas Tech University Health Sciences Center El Paso

Instructor – Obstetrics and Gynecology July 2023 – Present

Texas Tech University Health Sciences Center El Paso

Resident Physician – Obstetrics and Gynecology October 2020 – June 2023

Las Palmas Del Sol Healthcare

Resident Physician – Obstetrics and Gynecology July 2019 – October 2020

**PhysAssist Scribes** 

Emergency Room Scribe August 2014 – June 2015

## PUBLICATIONS AND PAPERS

Mootz, A., Belmont de Santiago, A., Gutierrez, J., Steffen, K., Swinney, I., Francis, M. Providing Women's Cancer Screening and Education in an Underserved Border Population. *Journal of Student-Run Clinics*. May 2018; Volume 4, 1. <a href="http://journalsrc.org/index.php/jsrc/article/view/62">http://journalsrc.org/index.php/jsrc/article/view/62</a>

Mootz, A., Price, A., Steffen, K., et al. Retrospective analysis of population demographics, medical interventions, and resource use at a medical student run clinic on the Texas-Mexico Border. *Journal of Health Care for the Poor and Underserved*. 2019. Volume 30, 2.519-531. <a href="https://pubmed.ncbi.nlm.nih.gov/31130535/">https://pubmed.ncbi.nlm.nih.gov/31130535/</a>

## RESEARCH EXPERIENCE

Texas Tech University Health Sciences Center El Paso Paul L. Foster School of Medicine

Use of Spanish Interpreters in the Emergency Department June 2017-May 2019

Advisor: Dr. Sabrina Taylor

Evaluating menopausal symptoms in a border population in west Texas November 2020-May 2022

Advisor: Dr. Anjana Nair

#### POSTGRADUATE COURSES

GE Advanced Electronic Fetal Monitoring (EFM) Course March 2020

## PRESENTATIONS

Clinical Diagnosis of Endometriosis, Presented at: Journal Club

DIC Overview, Presented at: Del Sol ICU Morning Huddle

Universal cystoscopy at time of benign hysterectomy: a debate: Presented at: Journal Club

Twin Reversed Arterial Perfusion Sequence. Presented at: MFM High Risk Meeting

June 2, 2020

July 2020 Morbidity and Mortality Conference Cesarean Scar Pregnancy Case Presentation

Medically Assisted Reproduction Treatment Types and Birth Outcomes, Presented at: Journal Club

July 21, 2020 February 4, 2022 February 25, 2022

## LANGUAGES

English- native language

Spanish-speak with intermediate proficiency, read/write with high proficiency

#### MEMBERSHIPS

American Medical Association
Texas Medical Association
El Paso County Medical Society
Gold Humanism Honor Society
American College of Obstetricians and Gynecologists – Junior Member
Texas Association of Obstetricians and Gynecologists

#### **CERTIFICATIONS**

ACLS Certified BLS Certified NRP Certified