



**Department of Pharmacy**

# **PGY2 Oncology Residency Manual**

**July 2024–June 2025**



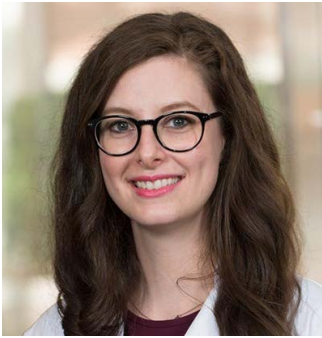
**Memorial Sloan Kettering  
Cancer Center**

**MSK Kids**

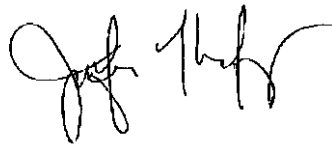
# WELCOME TO THE MSK FAMILY

## Welcome from your Residency Program Directors

We are both thrilled to have you join the MSK Pharmacy Family! It is a demanding year of training that is also full of personal and professional growth. As your RPDs, we serve as mentors, preceptors, and are involved with every aspect of your residency training. We are here for you throughout the year. We are as excited as you are to start the journey.



**Lisa Modelevsky**, PharmD, BCOP  
PGY2 Oncology Residency Program Director  
Manager, Clinical Pharmacy Practice



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# **Memorial Sloan Kettering Cancer Center**

## **Department of Pharmacy**

### **PGY2 Oncology Residency Program**

#### **MISSION STATEMENT**

The Pharmacy Department at Memorial Sloan Kettering Cancer Center (MSK) is dedicated to the progressive control and cure of cancer through programs of patient care, research, and education. This has been MSK's mission since 1884.

#### **PURPOSE**

PGY2 pharmacy residency programs build on Doctor of Pharmacy (Pharm.D.) education and PGY1 pharmacy residency programs to contribute to the development of clinical pharmacists in specialized areas of practice. PGY2 residencies provide residents with opportunities to function independently as practitioners by conceptualizing and integrating accumulated experience and knowledge and incorporating both into the provision of patient care or other advanced practice settings. Residents who successfully complete an accredited PGY2 pharmacy residency are prepared for advanced patient care, academic, or other specialized positions, along with board certification in oncology.

#### **INTRODUCTION TO THE PGY2 ONCOLOGY PHARMACY RESIDENCY PROGRAMS**

The PGY2 Oncology Residency Programs conducted by MSK is accredited by the American Society of Health-System Pharmacists (ASHP). Both residencies are 12-month (52-week) programs based upon the [ASHP Standard for Postgraduate Pharmacy Residency Programs \(“The Standards”\)](#) and the [ASHP Required Competency Areas, Goals, and Objectives \(CAGOs\) for Postgraduate Year Two \(PGY2\) Oncology Pharmacy Residencies](#). The residencies focus on development of special competence in clinical therapeutics for cancer, an introduction to clinical research as well as introductory experiences in the management of sophisticated pharmacy service programs. It is required that residents have already achieved a basic level of competence in institutional and clinical pharmacy practice. The Customized Development Plan for each resident may vary in structure and emphasis based upon the resident's entering level of knowledge, skills, abilities, and interests.



One of the residency programs focuses on therapeutics in adults. The first month is dedicated to orientation to MSK, pharmacy department, and crash courses in oncology. Nine months are devoted to major rotations in patient care, ranging from 2 to 5 weeks in length. The patient care rotations are divided into inpatient and outpatient experiences. These rotations consist of hematologic malignancies (leukemia, lymphoma, and multiple myeloma), bone marrow transplantation, and solid tumor malignancies (breast, gastrointestinal, gynecologic, thoracic, genitourinary, and neuro-oncology). Other required learning experiences include pediatric oncology, infectious diseases, and early drug development (phase 1) clinic. In addition to the direct patient care rotations, there are longitudinal learning experiences focusing on formulary and medication use policy, medication safety and quality management, pharmacy operations, leadership and clinical pharmacy administration, investigational drug studies, well-being and resilience, and research. Elective rotations permit the resident to expand abilities and skills in different areas of particular interest.

The second PGY2 oncology pharmacy residency focuses on pediatric oncology. The first month is dedicated to orientation to MSK, MSK Kids, the pharmacy department, and crash courses in oncology. Nine months are dedicated to learning experiences (rotations) providing direct patient care to children, adolescents, and young adults with cancer. Required rotations include inpatient learning experiences in pediatric hematology/oncology and pediatric transplant and cellular therapy (TCT), and outpatient rotations in pediatric neuro-oncology, pediatric hematologic malignancies, pediatric transplant and cellular therapy, pediatric sarcoma, and pediatric neuroblastoma. There is also one required rotation on the inpatient adult leukemia service to solidify the understanding of the treatment of hematologic malignancies. In addition to the direct patient care rotations, there are longitudinal learning experiences focusing on formulary and medication use policy, medication safety and quality management, pharmacy operations, leadership and clinical pharmacy administration, investigational drug studies, well-being and resilience, and research. Elective rotations permit the resident to expand abilities and skills in different areas of particular interest. Established elective rotations include pediatric intensive care unit, infectious diseases, pain and palliative care, long-term follow-up clinic, as well as spending additional time in previous rotations if desired. The resident may elect a rotation offered in either program.

The specific program for each resident varies based on the resident's goals, interests, and previous experience. However, all residents are required to complete rotations in core subject areas considered to be essential to the oncology pharmacy practitioner. Elective rotations are available to permit the resident flexibility in pursuing individual goals.

Effective communication skills are critical for the pharmacy practitioner. While the residents will have numerous opportunities to refine their skills on rotation, the following experiences can build their skills:

1. Direct involvement in patient admission medication reconciliation and discharge counseling regarding home medication regimen during selected clinical rotations within the hospital; and
2. Patient counseling in the ambulatory clinics involving hands-on experience, discussing the patient's disease and drug therapy, monitoring, and adjusting drug therapy regimens, and methods to enhance adherence.

## **PROGRAM GOALS**

The main goals of this residency program are to:

1. Develop the resident's fundamental knowledge of oncology therapeutics and malignant disease states and build the clinical skills required to practice as an independent oncology clinical pharmacist.
2. Emphasize the role of continuous professional development through literature evaluation, didactic lectures, roundtable discussions, self-learning, and continuous self-reflection.
3. Apply evidence-based guidelines and standards in tailoring treatment plans to optimize patient care and outcomes.

## **PROGRAM PARTICIPANTS AND ROLES**

A number of individuals play key roles in the administration of the PGY2 Oncology Pharmacy Residency programs.

### **Vice President and Chief Pharmacy Officer**

#### **Scott Freeswick, PharmD, MS**

The Chief Pharmacy Officer justifies the importance of the residency program and supports the program for budget approval.

### **Residency Program Directors (RPDs)**

#### **Lisa Modelevsky, PharmD, BCOP**

Manager, Clinical Pharmacy Practice

#### **Jennifer Thackray, PharmD, BCPS, BCPPS**

Manager, Pediatric Clinical Pharmacy Services

The Residency Program Directors maintain responsibility for the residency program. This includes that the overall program and specific learning objectives are met, training schedules are maintained, appropriate preceptorship for each rotation or training period is provided and resident evaluations are conducted routinely and based on established learning objectives.

### **Residency Program Coordinators (RPCs)**

#### **Stephen Eng, PharmD, BCOP**

Clinical Pharmacy Specialist, Bone Marrow Transplant  
Adult Oncology Program

#### **Binni Kunvarjee, PharmD, BCOP**

Clinical Pharmacy Specialist, Pediatric Transplant and Cellular Therapy  
Pediatric Oncology Program

The Residency Program Coordinators (RPCs) support the Residency Program Directors in their responsibilities. They assume a leadership role in program administration and program recruitment activities. Specific responsibilities include but are not limited to assisting with the ASHP midyear interview process, serving as an active member of the resident selection committee, serving as the preceptor for the educational longitudinal rotation and coordinating learning activities such as the Oncology Didactic Lecture series.



## Preceptors

Sonal Agarwal, Rose Baek, Natalie Brumwell, Wiktoria Bogdanska, Manpreet Boparai, Amelia Chan, Jenna Ciervo, Melinda Cook, Nicole Daukshus, Jacqueline Dela Pena, Raymond DeMatteo, Stephen Eng, Kate Gasparini, Tami Guitaud, Issam Hamadeh, Lynnette Henshaw, Charlene Kabel, Adam Kahleifeh, Jungwook Kang, Lauren Koranteng, Binni Kunvarjee, Ed Lee, Andrew Lin, Dazhi Liu, Bernadette Loughlin, Jiani Luo, Lisa Modelevsky, Richa Madurkar (Shah), Rabeya Molla, Stephanie Monaco, Mary Nauffal, Jaroslaw Nalbach, Lane Nguyen, Nina Orsini, Vivian Park, Krishna Shah, Krisoula Spatz, Jennifer Thackray, Grashma Vadakkal, Katherine Vicinanza-Rickard, Alice Wang, Qiong (Shirley) Yan.

Pharmacist preceptors develop and guide the learning experiences to meet the residency program's goals and objectives with consideration of the residents' goals, interests, and skills. The preceptors review the residents' performance, with a final written evaluation at the conclusion of each learning experience.

# GENERAL REQUIREMENTS

## Licensure

1. Each resident is licensed within New York State by October 1 of the residency year. The resident must be licensed in the state of New York for a minimum of two-thirds of the 52-week residency program (35 weeks) to be eligible for successful completion of the residency program.
2. The residents should be active and timely in reporting to the RPD in case there is a possible delay in pharmacy licensure beyond the October 1 deadline. Any resident who is unlicensed by October 1 will continue their assigned staffing schedule and function as a technician. Each operational staffing shift after October 1 that the resident is required to staff as a technician, the resident must compensate for after licensure with equal staffing time as a pharmacist.
3. If by November 1, if the resident remains unlicensed, the resident will be terminated, and the program certificate will be withheld.
4. The residents work as technicians until pharmacy licensure is obtained. Upon licensure, the residents are evaluated to assess preparedness for transition into a pharmacist role. If deemed competent, the residents work as pharmacists in the areas mentioned above. Each resident is expected to practice as a pharmacist in a designated pharmacy satellite throughout the residency year.

## PGY1 Certificate of Completion

The resident must provide documentation to the PGY2 Oncology Residency Program Director (RPD) of successful completion of an ASHP-accredited or candidate-status PGY1 residency program within 7 days after the PGY2 residency program start date. Graduate tracking in PharmAcademic®, email communication with the PGY1 RPD, or an email attachment of the PGY1 certificate of completion may be used for verification. The certificate of completion must be retrievable by the resident upon request.

# RESIDENCY POLICIES

## Travel and Professional Society Involvement

Residents completing the program at MSK are expected to develop and maintain an involvement in professional society activities on a local, state and national level. Involvement is critical to the development of the oncology resident and the achievement of professional and personal goals.

1. Residents should plan to join and assume an active role in ASHP. Activities include attending the midyear clinical meeting, and potentially volunteering their services to the society, or attending an orientation session for residents.
2. Residents should plan to join and assume an active role in the Hematology Oncology Pharmacy Association (HOPA). It is mandatory that the resident submit and present their oncology research project at the annual HOPA meeting.

As part of the residents' professional and personal development, travel, and attendance at meetings on a national level is expected. Funding for attendance at the ASHP midyear clinical meeting and HOPA is provided by the Pharmacy Department since the residents are required to attend these meetings. Annual membership fees for ASHP and HOPA will be reimbursed as well (one-year membership purchased during the residency year).

All residents are expected to attend ASHP and HOPA annual meetings which are approved meetings for the residency program. Conference days (and travel to the conference) do not count as time away from the program. If residents are interested in attending any meeting outside of the approved meetings, a special request must be submitted to the RPD to discuss the benefit of attending the meeting. Reimbursement for meetings outside of ASHP and HOPA will not be provided unless attendance is required by the RPD.

## Workplace Resources

The PGY2 Oncology Residency Program is conducted primarily out of the Upper East Side of Manhattan, with locations at MSK Main Campus (1275 York Ave), David H. Koch Center (530 E. 74th St), Evelyn H. Lauder Breast Center (300 E. 66th St.), Rockefeller Outpatient Pavilion (160 E. 53rd St), and Sutton (460 E. 63rd St).

The resident will be provided a workspace equipped with a desk, desktop computer, landline telephone, and desk drawers at Sutton (460 E. 63rd St). Entrance to the building will be via MSK ID badge. Two workstations in the Schwartz building at Main Campus (1275 York Ave) will be available on a rotating basis. Residents will be provided with an iPad for clinical use as well.

Access to clinical information, medical and pharmacy information databases, institutional resources and the MSK Medical Library will be provided. Virtual desktop computer (VDC) will be accessible via the MSK virtual private network (VPN) from remote location. Residents must comply with MSK's Code of Conduct which will be reviewed and attested during orientation.

## Duty Hours

The PGY2 Oncology Residency Program adheres to the [ASHP Duty Hour Requirements for Pharmacy Residencies guidance](#). Duty hours are defined as all hours spent on scheduled clinical and academic activities related to the pharmacy residency program that are required to meet the educational goals and objectives of the program. This includes inpatient and outpatient care, weekend staffing, and administrative responsibilities (e.g., meetings). Duty hours do not include reading, studying, and academic preparation time for presentations and journal clubs or hours that are not scheduled by the RPD or a preceptor.

Duty hours are limited to 80 hours per week, averaged over a four-week period, inclusive of weekend operational and clinical staffing responsibilities. The clinical, operational, and administrative responsibilities outlined within the residency program are structured to fall below the maximum duty hours throughout any four-week period. Resident duty hours will be tracked monthly through a resident self-reporting tool in PharmAcademic® that residents will be assigned to complete each month. Residents should refer to the [ASHP Duty Hour Requirements for Pharmacy Residencies](#) guidance for a full overview of the duty hour policy.

If the resident anticipates exceeding the duty hour requirements (> 80 hours per week), the resident should contact their RPD to discuss a prevention plan. In addition, the RPD will routinely review the resident's duty hour attestation in PharmAcademic® and assess instances of non-compliance. The RPD and the resident will work together to identify residency-related responsibilities and deadlines that could be modified to prevent exceeding duty hour requirements in the future.

Moonlighting (internal or external) is not permitted during the residency program.

## LEAVE POLICIES

MSK routinely grants legal holidays, paid time off, and conference time to each resident. Additionally, MSK grants leaves to its employees for a variety of life events; however, such leaves by residents may impact their ability to satisfactorily complete the requirements of the training program and obtaining certificate of completion. For additional information on types of extended leave offered by MSK (not already addressed in this manual), please see [MSK Human Resource](#) webpage and contact your RPD.

### Legal Holidays

The following table highlights 7 legal holidays recognized by the hospital. Residents, as a part of the professional staff of the department, are expected to assist with holiday coverage, if needed. Residents will be required to staff one holiday shift during the residency year at the discretion of the RPD (typically, New Year's Day). Staffing coverage on the holiday is medication reconciliation for designated inpatient units. The remaining 6 days will be paid time off (PTO).

Legal Holidays	
Independence Day	New Year's Day
Labor Day	Martin Luther King Jr. Day
Thanksgiving Day	Memorial Day
Christmas Day	

### Paid Time Off (Sick, Vacation & Interview Days)

In addition to the PTO for the holiday's mentioned above, each resident will receive an additional 15 paid time off (PTO) days during their residency training year. These days may be used for times when the resident is absent from work for illness, interviewing for a future position, or personal leave or vacation. It is suggested to reserve 4 of these PTO days for unexpected illnesses and 3 days for interviewing; however, this is optional. Residents are limited to two (2) days off during any one 4-week learning experience and one (1) day off during any 2-week learning experience. Any additional time off during a rotation requires special review by the RPD with a plan for how the activities missed will be compensated. Any personal days left unused at the end of the residency year will be forfeited and no additional compensation will be provided.

All requests for planned or unplanned time off must be approved by the RPD. Requests should be submitted in writing (email). For unplanned time off (sick days, emergency vacation days), the resident must email the preceptor as well as the RPD to inform them of any sickness. Residents who are sick are not expected to show up to work.

The residents are responsible for arranging switches for all other vacation and time off during their regular scheduled weekend. Unlicensed residents are not eligible for schedule switches.

## Extended Leave

MSK grants leaves to its employees for a variety of life events; however, such leaves by residents may impact their ability to satisfactorily complete the requirements of the training program. Residents who require an extended leave, defined as more than two (2) days off during a 4-week learning experience, more than one (1) day during a 2-week learning experience, or more than the allotted 21 days of holiday and PTO will be required to obtain the necessary approvals from the RPD. Conference days during a learning experience are not counted as time away from the program. For additional information on types of extended leave offered please refer to the [MSK Human Resource](#) webpage and contact your RPD.

## Unexplained Absences

Residents who do not show up to a scheduled activity and do not notify the proper personnel of the absence are subject to counseling. This program has zero tolerance policy for unprofessional behavior. See [MSK's Code of Conduct](#) for all policies related to professional conduct.

## Time Away from the Program

For the purposes of the Standard, time away from the program is defined as the total number of days taken for vacation, sick, interview, and personal days; holidays; religious time; jury duty; bereavement leave; military leave; parental leave; leaves of absences; and extended leave. Time away from the program does not include meeting or education days.

Time away from the program is not allowed to exceed 10 consecutive days or a combined total 37 days per 52-week training period without an extension approval. If an extension is approved, the resident will be required to compensate for the time missed at the end of the year through an extension of the residency program. If a resident is away from the program due to an approved absence for 10 to 56 days (8 weeks), half of the time away must be made up at the end of year through an extension of the program (e.g., if 56 days are missed, 28 days are required to be made up). If an extension is approved, it cannot exceed the last day of July of the graduation year. Approval of a residency program extension will be based on the reason for extension (illness, remediation plan progress, etc.) at the discretion of the RPD and assessed on a case-by-case basis. If a program extension is granted, compensation and benefit coverage will be provided. The program certificate will be withheld until the time has been made up. If the time is not made up by July 31st or an extension is not granted, the program certificate will be withheld.

## Remediation

Resident progress will be assessed during quarterly Customized Development Plan (CDP) meetings with the RPD and use of the Customized Development Plan & Requirements For Program Completion Tracking Tool. One goal of the quarterly CDP meetings is to identify



areas where the resident may not be successful in completing the residency and provide the resident with additional support and tools to do so.

Residents failing to progress as expected during the residency program will meet with the RPD to address issues and develop a remediation plan. Failure to progress includes, but is not limited to:

- $\geq 30\%$  of objectives rated Needs Improvement during the first quarter (August through October) assessed at the First Quarter Customized Development Plan meeting (by October 31)
- $\geq 10\%$  of objectives rated Needs Improvement during the second quarter (November through January) assessed at the Second Quarter Customized Development Plan meeting (by January 31)
- Any objectives rated Needs Improvement during the third quarter (February through April) assessed at the Third Quarter Customized Development Plan meeting (by April 30)
- Any resident who is unlicensed by October 1

If a remediation plan is warranted (clinical and/or operational), the goals and objectives (e.g., obtain licensure by November 1, objectives rated Needs Improvement, etc.) will be identified. An individualized remediation plan will be developed by the RPD to aid progression from learning fundamental information to being able to synthesize information needed for plan creation (knowledge, comprehension, application, analysis, evaluation, synthesis). The resident's progress will be assessed on a weekly basis with conclusion at week 7. If the resident fails to meet the remediation plan expectations, the resident's appointment will be terminated, and the certificate of completion will be withheld. An extension to the program will not be granted if the resident doesn't meet the remediation plan expectations. The remaining time of the program will be unpaid, and the resident will be terminated from the position.

## Termination

Residents may be terminated from the program at any time during the year after failing to progress as part of a remediation plan or after two documented counseling's with no improvement in adherence to MSK code of conduct policies. The Residency Advisory Committee conducts a formal evaluation of residents prior to each quarter's Customized Development Plan to address any possible case of failure to progress and need for remediation plan early in the year. However, this does not remove the committee's authority to terminate a resident at any point after documented counseling.

## REQUIREMENTS FOR PROGRAM COMPLETION

The following list of requirements must be met by the resident to be awarded a PGY2 Oncology Pharmacy Residency Program Certificate at the end of the program. The Requirements For Program Completion List (table below) details the deliverables and activities required for program completion and certification. The deliverables must be stored in their corresponding folders in the Resident Personal H: drive Folder (“Residents – Resident Name”). The Requirements for Program Completion Tracking Tool (within the Customized Development Plan Excel file) and Personal H-Drive will be provided to residents within 7 days of the program start date. It will be reviewed quarterly for progress during Customized Development Plan meetings with RPD and for completeness at the Close-Out of the residency year (last week of residency).

A residency certificate will only be awarded to residents completing all requirements, deliverables, and activities. A certificate will be withheld for missing deliverables or activities listed in the Requirements For Program Completion List. More information on each requirement maybe found in the respective learning experience description.

Requirements For Program Completion List (See Customized Development Plan for Tracking Tool)	
Folder (Personal H: Drive)	Deliverables and Activities
<b>Academia</b> (optional)	<ul style="list-style-type: none"> <li>• Final version of Rutgers Pharmacy School Presentation (optional)</li> <li>• Evaluations (if provided by Rutgers)</li> </ul>
<b>Case, Didactic, and Debate/ Clinical Controversy Presentations</b> *Final slides and related evaluations	<ul style="list-style-type: none"> <li>• Case Presentation #1</li> <li>• Evaluations for Case Presentation #1</li> </ul>
	<ul style="list-style-type: none"> <li>• Case Presentation #2</li> <li>• Evaluations for Case Presentation #2</li> </ul>
	<ul style="list-style-type: none"> <li>• Didactic Presentation #1</li> <li>• Evaluations for Didactic Presentation #1</li> </ul>
	<ul style="list-style-type: none"> <li>• Didactic Presentation #2</li> <li>• Evaluations for Didactic Presentation #2</li> </ul>
	<ul style="list-style-type: none"> <li>• Debate/Clinical Controversy Presentation</li> <li>• Evaluations for Debate/Clinical Controversy</li> </ul>
<b>CE Presentation</b>	<ul style="list-style-type: none"> <li>• Final slide deck from CE presentation</li> <li>• Evaluations for CE</li> </ul>
<b>Clinical Rotations</b> *RPD will add rotation abbreviations quarterly for completed folders	<ul style="list-style-type: none"> <li>• Create a separate folder for each clinical rotation (Example for Adult: MM, LYM, GU, Breast, LKA, BMT, Neuro, ID, Thoracic, Gyn, GI, Peds, EDD, CTS, Melanoma)</li> <li>• In each folder, include Rotation Calendar, Topic Discussion Handouts, In-service</li> </ul>
<b>Customized Development Plan</b>	<ul style="list-style-type: none"> <li>• Initial Self-Assessment (within 7 days of program start)</li> </ul>
	<ul style="list-style-type: none"> <li>• Initial Plan (by July 31)</li> </ul>
	<ul style="list-style-type: none"> <li>• Quarter 1 (by October 31)</li> </ul>
	<ul style="list-style-type: none"> <li>• Quarter 2 (by January 31)</li> </ul>

	<ul style="list-style-type: none"> <li>• Quarter 3 (by April 30)</li> <li>• Residency Close Out (by end of June)</li> </ul>
<b>Duty Hours in PharmAcademic</b> (no folder)	<ul style="list-style-type: none"> <li>• Resident submitted duty hours monthly in PharmAcademic for quarter</li> </ul>
<b>Investigational Drug Service</b>	<ul style="list-style-type: none"> <li>• Steering Committee Pharmacy IDS Questionnaire (1 protocol)</li> <li>• PACC Verification Worksheet (1 protocol) (peds only)</li> </ul>
<b>Journal Clubs</b> <b>*Final slides and related evaluations</b>	<ul style="list-style-type: none"> <li>• Journal Club #1</li> <li>• Evaluations for Journal Club #1</li> <li>• Journal Club #2</li> <li>• Evaluations for Journal Club #2</li> </ul>
<b>Medication Guidelines</b>	<ul style="list-style-type: none"> <li>• P&amp;T Drug Monograph presented at P&amp;T</li> <li>• Chemotherapy (IV/PO) Guideline</li> <li>• Medication Practice Guideline (peds only)</li> </ul>
<b>Medication Safety Project</b>	<ul style="list-style-type: none"> <li>• QA Committee presentation from Medication Safety RISQ Event Analysis</li> </ul>
<b>Medication Use Evaluation</b>	<ul style="list-style-type: none"> <li>• MUE Data analysis spreadsheet</li> <li>• MUE Final Report</li> </ul>
<b>Newsletter</b>	<ul style="list-style-type: none"> <li>• Newsletters resident actively edited</li> <li>• 1 Newsletter article authored by resident</li> </ul>
<b>NYS License and Registration</b> <b>*Must be licensed for minimum of 35 weeks</b>	<ul style="list-style-type: none"> <li>• Obtain NYS pharmacist license by October 1st of residency year</li> <li>• If NYS license not obtained by October 1st, must be licensed by November 1st per remediation</li> <li>• Photocopy of NYS License</li> <li>• Photocopy of NYS Registration</li> </ul>
<b>Oncology Didactic Lectures</b>	<ul style="list-style-type: none"> <li>• ODL Handouts from each session uploaded quarterly in folder (x22 total)</li> </ul>
<b>PharmAcademic Objectives Achieved for Residency (ACHR)</b> (no folder)	<ul style="list-style-type: none"> <li>• Total percentage of objectives achieved at quarterly evaluation (PharmAcademic)</li> <li>• Total percentage of objectives ACHR must be <math>\geq 80\%</math> by end of program (PharmAcademic)</li> <li>• All objectives in R1 at minimum Satisfactory Progress by end of program</li> </ul>
<b>PGY1 Residency Certificate Photo &amp; signed Offer Letter</b>	<ul style="list-style-type: none"> <li>• Copy of PGY1 Residency Certificate saved within 7 days of program start</li> <li>• RPD to include copy of PGY2 signed offer letter</li> </ul>
<b>PGY2 Certificate</b>	<ul style="list-style-type: none"> <li>• RPD to add PDF of certificate</li> </ul>
<b>Required Topics Checklist</b> (no folder - see tabs)	<ul style="list-style-type: none"> <li>• Review progress each quarter - RPD to determine if on track</li> <li>• Required topic checklist completed by end of program</li> </ul>
<b>Research Project</b> <b>*All final versions must be saved in research folder</b>	<ul style="list-style-type: none"> <li>• Approved IRB Retrospective Research Protocol (RRP)</li> <li>• Data Collection Sheet (all data collection completed)</li> <li>• Data Dictionary</li> <li>• HOPA Abstract</li> </ul>

<b>Staffing Requirements</b>	• Manuscript (final version suitable for publication)
	• HOPA Poster presented at HOPA
	• Final Platform Research Presentation provided to Pharmacy Department
	• Total number of staffing hours missed per quarter
	• Completed and signed chemo staffing checklist by end of program
	• Completed $\geq 80\%$ (183 hours) of scheduled staffing by end of program
	• Completed and signed non-chemo staffing checklist (peds only)

## PROGRAM STRUCTURE

The program is designed to allow the resident to experience various aspects of oncology practice. Each resident is responsible for achieving enough educational experience throughout the year. The intent is to ensure that each resident master the minimum requirements for each educational experience.

As delineated by The Standards, the program is divided into several key areas:

1. MSK Pharmacy Department Orientation
2. Required and Elective Learning Experiences (i.e., rotations)
3. Longitudinal Learning Experiences
4. Additional Educational Activities
5. Staffing and Pharmacy Operations

### 1. MSK PHARMACY DEPARTMENT ORIENTATION

This first, required learning experience that facilitates orientation of the resident to the residency program and practice environment at the beginning of the residency. The overall goal is to achieve consistency and proficiency in the basic skills among the residents given their various training backgrounds, to identify and provide feedback on areas for improvement, and ultimately to build an individualized, structured residency plan.

A set of Crash Courses is given during the orientation month. Material, journal articles, or guidelines are distributed to the residents prior to the scheduled sessions. The purpose of these sessions is to provide a consistent knowledge base for the starting residents so that the preceptors may focus on higher-level learning during clinical rotations.

Additionally, an assessment of the resident's baseline knowledge The ASHP Entering Self-Assessment Form (PharmAcademic®) is performed within the first 7 days of the program start date to provide an assessment of the baseline clinical skills and goals of each oncology resident. This process helps identify areas that the residents need to further develop or focus on throughout the year and serve as a reference for the preceptors and program director to use in their evaluations. It will serve as a foundation for the Initial Customized Development Plan that will be created within 30 days of the program start date.

For more information, please see the MSK Pharmacy Department Orientation Learning Experience Document and Division of Pharmacy Services Pharmacy Orientation Checklist

## 2. Required and Elective Learning Experiences (i.e., rotations)

Organized rotations provide the structure of resident training in various oncology settings. The residents are expected to consider the goals and objectives for each rotation as a foundation for their learning experiences.

Residents are expected to perform independently and demonstrate proficiency in their rotations. The residency preceptors provide guidance and assistance to the residents and ensure that the goals set forth by the residents and the program are met. The preceptors also provide the resident with frequent evaluation of their progress, including a written evaluation at the conclusion of the rotation. Frequent, clear communication is the key to a successful resident/ preceptor relationship. To maximize the learning experience, the residents are expected to personally inform the preceptor of all absences, schedule conflicts, longitudinal commitments, and/or concerns that might arise during the learning experience. Residents are also expected to prepare for topic discussions, read materials in a timely manner, and perform other tasks assigned by the preceptors.

The residency program is composed of both required and elective learning experiences that generally range 2 to 5 weeks in length. The elective learning experiences are available toward the end of the year and can vary between residents depending on future career goals. Elective rotations options are available or may also consist of repeating any of the required rotations.

Additionally, the program has several longitudinal learning experiences (LLE) throughout residency year that supplement the trainees experience in key areas of clinical research, education, pharmacy operations and quality assurance.

A 12-month resident rotation schedule provides a framework for structured learning activities. Each resident will meet with their respective program director at the beginning of the year to form an initial development plan. Once the resident's development plan has been finalized it will be added to PharmAcademic and emailed to each resident's respective preceptors, so preceptors remain informed of resident goals and scheduled rotations.

Adjustments and changes to residents' schedules are discussed at each quarterly development plan meeting. Goals are assessed throughout the year and learning experiences may be modified as needed to tailor to the resident's development plan and goals.



The following tables outline the program structure for the oncology programs.

PGY2 ONCOLOGY PROGRAM STRUCTURE AT MSK (ADULT ONCOLOGY PROGRAM)	
Required Rotations	Duration
MSK Pharmacy Department Orientation	4 weeks
Leukemia (Inpatient)	4 – 5 weeks
Bone Marrow Transplant	4 – 5 weeks
Lymphoma	4 – 5 weeks
Infectious Diseases	2 weeks
Thoracic Oncology	4 weeks
Neuro-Oncology	2 weeks
Gastrointestinal Cancer (Outpatient)	2 weeks
Breast Cancer (Outpatient)	2 – 3 weeks
Pediatric Oncology	2 weeks
Gynecologic Malignancies (Outpatient)	2 weeks
Genitourinary Malignancies (Outpatient)	2 weeks
Multiple Myeloma	4 weeks
Early Drug Development	1 – 2 weeks
Melanoma	1 – 2 weeks
Cellular Therapy Service	1 – 2 weeks
Elective Rotations	Duration
Bone Marrow Transplant Clinic	2 weeks
Gastrointestinal Oncology Elective	2 weeks
Leukemia (Outpatient)	2 weeks
Lymphoma (Outpatient)	2 weeks
Thoracic Oncology Elective	2 weeks
Pain and Palliative Care	2 weeks

## PGY2 ONCOLOGY PROGRAM STRUCTURE AT MSK KIDS (PEDIATRIC ONCOLOGY PROGRAM)

Required Rotations	Duration
MSK Pharmacy Department Orientation	4 weeks
Inpatient Pediatric Hematology/Oncology I	4 – 5 weeks
Inpatient Pediatric Transplant and Cellular Therapy I	4 – 5 weeks
Outpatient Pediatric Hematologic Malignancies I	4 – 5 weeks
Outpatient Pediatric Neuro-Oncology and Neuroblastoma	4 weeks
Outpatient Pediatric Transplant and Cellular Therapy I	4 weeks
Outpatient Pediatric Sarcoma and Rare Tumors	4 – 5 weeks
Adult Leukemia – Inpatient	3 weeks
Elective Rotations	Duration
Adult Bone Marrow Transplant – Inpatient	2 – 4 weeks
Adult Cellular Therapy Service	2 – 4 weeks
Adult Leukemia – Inpatient	2 weeks
Early Drug Development (Phase 1) Clinic	2 weeks
Infectious Disease	2 weeks
Inpatient Pediatric Hematology/Oncology II	4 – 5 weeks
Inpatient Pediatric Transplant and Cellular Therapy II	4 – 5 weeks
Long Term Follow-Up Clinic	2 weeks
Outpatient Pediatric Hematologic Malignancies II	4 – 5 weeks
Pain and Palliative	2 weeks
Pediatric Critical Care (PICU)	2 – 4 weeks
Pharmacy Administration	2 – 4 weeks

### 3. Longitudinal Learning Experiences (LLE)

The following tables outline the longitudinal learning experience structure for the oncology programs. Please see learning descriptions for more details.

LLE	Length	Deliverable(s)
<b>Education</b>	12 months	<ul style="list-style-type: none"> <li>• 2 Case Presentations</li> <li>• 2 Didactic Lectures</li> <li>• 1 Debate/Clinical Controversy Presentation</li> <li>• 2 Journal Clubs</li> <li>• 1 ACPE-accredited CE</li> <li>• 6 Newsletters edited and published approx. every other month (shared)</li> <li>• 1 Newsletter article</li> <li>• Oncology Didactic Lectures</li> <li>• 1 Student Teaching Experience (Ernest Mario School of Pharmacy, Rutgers) - optional</li> </ul>
<b>Formulary and Medication Use Policy</b>	6 months	<ul style="list-style-type: none"> <li>• MUE Data analysis spreadsheet</li> <li>• MUE Final Report</li> <li>• P&amp;T Drug Monograph presented at P&amp;T</li> <li>• Chemotherapy (IV/PO) Guideline</li> </ul>
<b>Investigational Drug Service</b> <ul style="list-style-type: none"> <li>• Adult</li> <li>• Pediatric</li> </ul>	3-6 months	<ul style="list-style-type: none"> <li>• Steering Committee Pharmacy IDS Questionnaire (1 Protocol)</li> <li>• PACC Verification Worksheet (1 Protocol) (Peds only)</li> </ul>
<b>Leadership and Clinical Pharmacy Administration</b>	12 months	n/a
<b>Residency Research Project</b>	12 months	<ul style="list-style-type: none"> <li>• Approved IRB Retrospective Research Protocol (RRP)</li> <li>• Data Collection Sheet (all data collection completed)</li> <li>• Data Dictionary</li> <li>• HOPA Abstract</li> <li>• HOPA Poster presented at HOPA Annual Meeting</li> <li>• Final Platform Research Presentation provided to Pharmacy Department</li> <li>• Manuscript (final version suitable for publication)</li> </ul>
<b>Medication Safety and Quality Management</b>	3 months	<ul style="list-style-type: none"> <li>• Medication Safety RISQ Event Analysis Presentation</li> <li>• Medication Practice Guideline (peds only)</li> </ul>
<ul style="list-style-type: none"> <li>• Pharmacy Operations and Staffing (Adult)</li> <li>• Pediatric Pharmacy Operations</li> </ul>	12 months	<ul style="list-style-type: none"> <li>• Pediatric/Adult Resident Staffing Checklist (completed and signed by end of program)</li> <li>• Pediatric Chemotherapy Module (PACC) Training Checklist (completed and signed by end of program) (peds only)</li> </ul>
<b>Well-being and Resilience</b>	12 months	<ul style="list-style-type: none"> <li>• n/a</li> </ul>

## **Oncology Didactic Lectures (ODLs)**

These are lectures dedicated to enhancing residents' oncology knowledge. The topics are scheduled by the oncology program directors and coordinators. All residents will be expected to be prepared for the oncology didactic lectures with each resident preparing the review of at minimum one drug from the topic list of medications. During these sessions one resident will serve as the resident facilitator to help lead the discussion, however all residents are expected to participate in the discussion. The resident facilitator is responsible to assign each session's drug list to respective co-residents. In addition, the resident facilitator should have a global understanding of all the drugs within the session and needs to come prepared with at least five questions to guide the discussion. These questions should be geared towards highlighting key pharmacotherapy aspects and differences between agents in each class. The format of these lectures is subject to change as needed to enhance retention and preparation for board certification. See additional information in the ODL Guideline and Expectation document.

## **ACPE-Accredited Continuing Education (CE) Presentation**

The Department of Pharmacy gives a monthly continuing education program to healthcare professionals. The residents are responsible for presenting one lecture per year. This allows the residents to practice their presentation skills in discussing a comprehensive and advanced topic. The residents are expected to adequately prepare and master the area in which the presentation is given.

## **Journal Clubs**

The journal clubs are designed to give the resident experience in critiquing a medical journal article. The resident will evaluate the article beforehand and lead the group in discussion of the article, soliciting opinions from all attendees. The residents are required to prepare for at least two journal clubs. See additional information in the Education LLE.

## **Clinical Presentations (Case Presentations (CPs), Didactic Lectures (DLs), & Debate/Clinical Controversy Presentation)**

The presentations prepared and presented by the oncology residents. There will be appropriately 2 – 4 sessions per month with each resident completing at least 5 presentations throughout the academic year. See additional information in the Education LLE.

The Clinical Presentation (CP) format may vary from an interactive case-based format, to more didactic in nature, or may consist of novel active learning approaches such as therapeutic debates. During the case-based format the resident should cover the disease state and what are the possible interventions necessary to improve this specific patient outcome.

Didactic Lectures will cover a specific disease state and require residents to discuss clinical trials and current standards of care. While clinical debates will allow residents to pair up and engage in an evaluation of a specific treatment option and explore the supportive evidence and specific critiques of the emerging treatment modality.

## **4. Additional Education Opportunities**

### **Co-precepting Pharmacy Students**

The structure of this educational requirement is largely left up to the preceptor and student. To achieve this goal, the oncology resident should be comfortable leading an hour-long discussion with a student under the preceptor's oversight at least four times in a rotation month. Oncology residents are expected to take a larger leadership role in precepting students. Also, residents may assist the student on rounds, following up with patients, drug information questions, or other daily activities in a rotation month. The residents should participate in this when they are well into the residency year or are in an area in which they have adequate clinical experience to serve as the preceptor for the student.

### **Department of Pharmacy Newsletter (inPHARMation)**

The newsletter provides an opportunity for residents to develop medical writing skills to effectively communicate clinical updates to a varied audience in a clear and concise way. The residents are required to write original clinical content for the newsletter at least once throughout the year, but additional articles are encouraged. See additional information in the Education LLE.

### **Academic Lecture at Local College of Pharmacy (Optional)**

MSK has a formal teaching relationship with the Ernest Mario School of Pharmacy (Rutgers, the State University of New Jersey) if the resident wishes to participate in didactic lectures, evaluations, or exam writing, opportunities will be coordinated.

## **5. Staffing and Pharmacy Operations**

To be consistent with The Standards each resident completes a staffing component during their residency. This practice component represents a longitudinal learning experience (LLE) within the framework of the oncology residency program. This experience is crucial to the development of professional practice skills. The resident will become proficient in pharmacy chemotherapy operations, including all aspects of order verification, medication preparation and distribution. In addition, the resident will develop skills in leadership and personnel management and gain insight into process improvement issues related to chemotherapy preparation.

The residents staff these areas:

- a. adult oncology (clean room)
- b. pediatric oncology (M9, PACC, and R5 clean room)
- c. inpatient floors (M10, M12, and M16)

The residents are required to staff one weekend (Saturday and Sunday) per month (excluding July and December) from 8:00 a.m. to 5:00 p.m. and two evenings per month (excluding July and December) from 4:00 p.m. to 6:00 p.m. In addition, all residents will staff for 20 hours over a one-week period (Monday through Friday, 8:00 a.m. to 12:00 p.m.) in December. Residents are expected to work January 1 to cover medication reconciliation (8:00 a.m. to 5:00 p.m.). Staffing activities outlined above (total of 228 hours) may change during the residency year, depending on departmental need or to enhance the resident's pharmacy staffing competency.

During the staffing component the residents become familiar with all chemotherapy agents, checking, mixture, and handling of hazardous materials. In addition to the operational staffing component, residents will also be required to complete clinical responsibilities on the weekends such as medication reconciliation and completion of follow up from clinical sign out. For adult residents, staffing is mainly in the chemotherapy clean room. This pharmacy satellite is dedicated to processing and dispensing chemotherapy agents to all the adult inpatient floors. This satellite is also responsible for processing chemotherapy orders for some hematologic outpatient oncology clinics such as leukemia and lymphoma and bone marrow transplant. Pediatric residents work on the M9 satellite and the R5 Clean Room. The M9 satellite provides medications for the inpatient pediatric unit. For chemotherapy order processing and mixing, the pediatric resident spends time in the Pediatric Ambulatory Care Center (PACC) and the clean room as scheduling permits throughout the year. In addition to the operational staffing component, the residents are also required to complete clinical responsibilities on the weekends such as medication reconciliation and completion of follow-up from clinical sign out. More information may be found in the Pharmacy Operations LLE description and Pediatric/Adult Resident Staffing Checklist.

If the adult resident prefers to have experience in pediatric oncology, some arrangements can be made to give the resident the opportunity to staff the PACC and/or M9 satellite. In addition, residents are encouraged to assess their own performance and to express any need in modifying the staffing to gain more experience. Other areas that residents might benefit from are the pharmacy satellites on different floors.



# RESIDENCY-RELATED COMMITTEES AND SUPPORT TEAMS

## 1. Residency Advisory Committee (RAC)

The Residency Advisory Committee is a standing committee of the Department of Pharmacy. It is composed of residency program directors, residency program coordinators, and residency preceptors. The committee serves in an advisory capacity to maintain the quality and consistency of the residency program.

The committee provides a forum for preceptors to discuss common concerns, to develop additional learning experiences, and to continually assess and improve the residency program based on ASHP standards and guidance, and resident feedback. The committee meets monthly.

The specific functions of the committee include:

- continuous evaluation of the curriculum, goals, and objectives
- monthly evaluation of residents' progress
- evaluation and support of residency projects
- resident recruitment and selection provide program preceptors with preceptor development vignettes to highlight specific areas of improvement and enhancement of preceptor skills (burnout assessment, well-being and resilience strategies, feedback, teaching methods, etc.)

Meeting minutes are distributed for approval prior to each meeting.

The preceptors periodically discuss the preparation plan for ASHP accreditation survey.

## 2. Residency Research Subcommittee (RRS)

This subcommittee is responsible for guiding residents, evaluating, and facilitating the completion of the project. This subcommittee is mainly involved with the major research project of the year. For more information, please see the Residency Research Project LLE description.

## 3. Pharmacy Quality and Safety Division (PQS)

This team is responsible for guiding the residents to complete the medication safety event assessment. This team facilitates a longitudinal learning experience under the preceptorship of a pharmacist from the pharmacy division of quality and safety. For more information, please see the Medication Safety and Quality Management LLE description.

## 4. Drug Policy Management Division

This team guides the resident in the medication utilization evaluation project. This team facilitates a longitudinal learning experience under the preceptorship of a staff member in drug policy management. For more information, please see the Formulary and Medication Use Policy LLE description.

## OVERALL EVALUATION STRATEGY AND METHODS

The oncology residency programs at MSK and MSK Kids offer residents opportunities to obtain the knowledge, skills, and abilities required to become competent oncology and pediatric oncology practitioners. The specific program for each resident can vary based upon interests and goals. During the year, the residents are evaluated by rotation preceptors, the program director, and the residents themselves.

The residents are required to meet with the rotation preceptors prior to the start of each new rotation, primarily to discuss and customize the rotation's goals and objectives to meet the specific needs of the resident.

### Rotation Hand-Off Meetings

Residents will plan and schedule a meeting with the RPD, their prior rotation preceptor, upcoming rotation preceptor, and mentor (attendance optional) to review the goals that need to be achieved in the next rotation and to identify the areas of improvement. The RPD will facilitate the Hand-Off Meeting and provide a longitudinal perspective of the resident's progress.

### Learning Experience Evaluation

A review of the rotation specific objectives and resident objectives should be completed on the first day of each rotation. During the rotation, the residents meet with the preceptors on a regularly scheduled basis, as determined by the preceptors and residents. Any additional modifications to the rotation or its goals and objectives are also discussed.

During the rotation there are midpoint and final evaluations. The midpoint evaluation is a verbal evaluation to communicate any areas for improvement and the final evaluation is completed in PharmAcademic® and discussed verbally. The final evaluation includes the resident's self-assessment, preceptor assessment, learning experience assessment, and the preceptor's evaluation of the resident's progress during the learning experience. All evaluations will be based on learning objectives. All resident and rotation evaluations must be submitted through the PharmAcademic system within 5 business days from the last day of the learning experience. Below are the approved definitions/criteria to be used for the evaluation of a resident's progress for each residency programs goals and objectives:

<b>Needs Improvement (NI)</b>	<p>Resident displays one or more of the following characteristics as it relates to goal/objective:</p> <ul style="list-style-type: none"> <li>• Requires direct and repeated supervision, guidance, intervention, and/or prompting</li> <li>• Makes questionable or unsafe clinical decisions</li> <li>• Fails to seek out feedback, incorporate feedback, or is unable to create a sound plan for improvement</li> <li>• Fails to complete tasks in a time appropriate manner</li> <li>• Acts unprofessionally</li> </ul>
<b>Satisfactory Progress (SP)</b>	<ul style="list-style-type: none"> <li>• Resident performs at the level expected for their training.</li> <li>• The resident responds to feedback and requires limited prompting and guidance to complete tasks appropriately</li> <li>• Resident can accurately reflect on performance and create a sound plan for improvement</li> </ul>
<b>Achieved (ACH)</b>	<p>Resident displays ALL the following characteristics for the assigned goal/objective:</p> <ul style="list-style-type: none"> <li>• Independently and proficiently completes assigned tasks required to meet objective</li> <li>• Displays responsibility to follow-up as needed on all assigned tasks</li> <li>• Accurately reflects on performance and can create a sound plan for improvement</li> <li>• Seeks guidance when needed</li> </ul>
<b>Achieved for Residency (ACHR)</b>	<ul style="list-style-type: none"> <li>• For an objective to meet criteria for achieved for residency (ACHR), it must have been achieved (ACH) <u>twice</u> from a preceptor (at any time point) on a required or elective rotation OR <u>once</u> from a preceptor on a longitudinal learning experience.</li> <li>• Eighty percent (80%) of objectives (32 or more out of 40) must be ACHR by the end of the residency program</li> </ul>

## Quarterly Evaluation: Customized Development Plan (CDP)

Customized Development Plans will contain an initial and quarterly assessment of the resident's progress on previously identified areas for improvement related to the competency areas and to ensure the resident is on track for completing requirements for residency completion and graduation. It will also contain identification of new strengths and opportunities for improvement (related to the competency areas, goals, and objectives for the residency). The CDP will document changes in the residents practice interests, career goals immediately post residency and a current assessment of their well-being and resilience. The plans will be reviewed with the RPD, stored in PharmAcademic®, and emailed to all the resident's preceptors. All documents related to rotations, learning activities, staffing, and research will be stored electronically in the shared folder.

The resident's Customized Development Plan (including CDP, Requirements For Program Completion Tracking Tool, Well-being and Resilience Assessment, and PGY2 Oncology Required Topics) will be completed by the following dates, as required by ASHP (initial and every 90 days):

- Initial (within 30 days of the start of the program): By July 31
- 1<sup>st</sup> Quarter: By October 31
- 2<sup>nd</sup> Quarter: By January 31
- 3<sup>rd</sup> Quarter: By April 30
- Residency Close-out: By end of program (last week of June)

## ADDITIONAL ACTIVITIES

### 1. Residency Program Director Meetings

The residency program director meetings are held periodically throughout the year. These meetings keep residents informed regarding progress and developments in the department, serve as a forum for didactic presentations of management topics, and broaden the resident's knowledge of professional issues. The leadership series is incorporated into these sessions.

### 2. Mentor/Mentee Program

A mentor is defined as a trusted counselor or guide. During the residency program there may be circumstances during which a resident will want to seek advice or guidance from an individual other than the residency program director. The purpose of the mentorship program is to connect residents with a clinical pharmacy specialist who can offer professional advice as the resident proceeds throughout the program and serve as an advocate for the resident during the year.

- Mentorship Program Benefits:
  - Keeping lines of communication open
  - Offering support to residents
  - Helping residents to set and define their goals
  - Providing residents with honest feedback
  - Serving as a reliable and consistent resource for the resident
- Resident Expectations:
  - Interact with mentors with the utmost respect and professionalism. The mentor-mentee relationship is primarily intended to offer professional advice and guidance.
  - Be open and honest with their mentors. Residents should keep in mind that mentor feedback is not meant to criticize but to support a resident's success. Ultimately mentors have the resident's best interests in mind.
- Mentor Expectations:
  - Meet with the resident about once a month typically prior to each RAC meeting to discuss with their mentee about the current month's rotational experience. This will include things that went well, difficulties, or issues of concern (e.g., miscommunication with preceptor, unmet expectations, or difficulties with other residents, etc.). These meetings will allow for residents to develop a trusting and professional bond with their mentor and for mentors to be able to advocate on behalf of the resident if necessary.
  - During RAC, a mentor may be able to shed light on issues or concerns that are raised, however if the resident shares any concerns that they prefer be kept private, then a mentor must honor this request.
  - The goal of this professional relationship is to address issues as early as possible and provide meaningful solutions to any problems that may arise. Mentors are expected to draw from their professional experience to offer appropriate guidance to residents and when necessary to promote the residents' self-reflection to highlight changes they may need to make in order to enhance their success.
  - In addition to this monthly meeting, residents can also meet with their mentor for assistance with the following items:
    - Help establish or discuss goals for the residents at the start of the program

- Guidance prior to the ASHP mid-year meeting to discuss potential job opportunities
- Interview preparation and advice
- Discuss elective options towards the end of the year that will best suit the resident career goals
- Intermittently during the year if a resident has an issue that arises that needs more immediate attention
- The following are items that mentors should not aid with:
  - Preparation of case presentations or journal clubs
  - Preparation for pharmacy grand rounds
  - Completion of the research project or its components
  - Daily patient care issues

### **3. Interview of Future Residents**

Residents participate in evaluating potential future residents. Their involvement may start as early as screening candidates via the Personal Placement Service (PPS) at the ASHP Midyear Clinical Meeting. Residents also schedule and participate in residency interviews for the next class of residents during January and February of their residency year.

### **4. Resident Buddy System**

In the spring of each residency year, following the results of the residency matching program, incoming oncology residents are assisted by current residents. Activities of the Resident Buddy System include assisting with relocation and finding housing, licensure procedures, orientation, mentorship, and fellowship.

### **5. Emergency Preparedness (Natural Disasters or Bioterrorism)**

Inclement weather, natural disasters, or other emergent situations are unpredictable. Pharmacy residents may be redeployed to perform pharmacy operational support/duties during these times. This includes availability for all shifts, including overnights. Every effort will be made to maintain the integrity of the rotation when possible.

### **6. Interdisciplinary Meetings**

To broaden and coordinate the residency experience, residents are requested to attend a variety of meetings throughout the year. These may be departmental meetings, pharmacy administrative staff meetings, Pharmacy and Therapeutic Committee (P&T) meeting, Clinical Council, Hospital Quality Assurance Committee meeting, Performance



Improvement, Internal Review Board meeting, etc. The preceptor will assign meeting attendance at the beginning of the month. In other cases, the resident will be requested to attend a specific meeting by another preceptor to broaden the resident's educational experience or assist with the development of a project. Meeting times and locations will be announced at the beginning of each rotation. Only the P&T and Pharmacy QA meetings are obligatory; residents are encouraged to spend most of their time devoted to patient care rather than attending meetings.

## **RESPONSIBILITIES OF THE RESIDENT**

### **TO PATIENTS**

As members of the MSK team, it is our collective mission to create an environment that embraces diverse perspectives and values the unique contributions each of us bring to the institution and patient care. It is your vow and ours to care for patients and collaborators with respect, warmth, and dignity.

### **TO MSK**

Every hospital has its own policies, rules, and regulations. You, as an oncology resident, being an employee of the hospital, are expected to familiarize yourself and abide by them.

Additionally, as a pharmacist within the hospital you will be expected to practice within the legal framework of the profession. You must strictly adhere to all federal, state, and local laws. The hospital may assume liability for a breach of any pharmacy standard, law, or regulation.

Disciplinary measures generally are progressive in nature; however, misconduct, behavioral issues, work performance problems, violations of the law or MSK policies or other actions by an employee may, at the discretion of MSK Management, warrant more immediate and severe discipline including but not limited to termination of employment. Please refer to the [MSK Corrective Action Policy](#) for additional information.

### **TO THE PHARMACY PROFESSION**

Continual ongoing professional development is an important skill to maintain throughout your pharmacy career. As a pharmacist this includes staying abreast of new clinical developments and therapeutic treatment options, following changes in pharmacy practice standards, and providing back to the profession through opportunities in education to pharmacists and pharmacy students. It is your professional responsibility to observe both moral and ethical codes. You should show that your conduct is above reproach and has met the qualities of a good pharmacist. Earn respect through your daily interactions with people by the way you conduct yourself as a professional.

## TO THE DEPARTMENT OF PHARMACY

As a resident you are an integral member of the department of pharmacy. As such, at all times, each resident is expected to adhere to pharmacy procedures and practices as outlined during orientation. Residents will be expected to treat all members of the department with respect. We encourage residents to approach every experience throughout the residency as a unique learning opportunity that will enhance a residents training and perspective.

## TO THE RESIDENCY PROGRAM

The use of generative artificial intelligence (AI) with large language modeling and inferencing capabilities (e.g., ChatGPT, OpenAI, Google Gemini, Microsoft Co-Pilot, and Apple Intelligence) are strictly prohibited for the development, production, and synthesis of:

- Deliverables
- Requirements For Program Completion List (examples include, but not limited to, presentations, journal clubs, manuscripts)

The use of AI-generated deliverables submitted as resident developed material will be considered plagiarism and are subject to disciplinary action.

Residents may use AI-powered applications for information analysis, evaluation, and studying. Of note, medical information retrieved from generative AI applications remains highly susceptible to error. The resident is ultimately responsible for verifying all information to ensure accuracy, authenticity, and validity of this content during clinical interactions, discussions, and engagements with colleagues.

## TO YOUR PRECEPTORS

Residents are expected to treat all program preceptors with respect. Residency program preceptors devote a significant amount of time and effort into precepting and are committed to helping residents achieve their residency learning objectives and goals. Please remember your preceptors' time is valuable. Please respect their time and be punctual for all required activities and alert them of any unexpected delays.

We encourage residents and preceptors to maintain an open line of communication with each other to enhance the success of each learning experience. If a resident has any specific concerns or questions, the resident is encouraged to address these issues as early in the rotation as possible. Additionally, residents and preceptors should openly discuss expectations and learning styles that will be effective at the start of each rotation and modify these if needed as the rotation progresses.

Don't forget that your preceptors are a fantastic resource! Residents should seek out opportunities to observe and model the practice style of each of their preceptors. This in turn provides each resident an excellent opportunity to select strategies that they find the most effective throughout the year and use those to develop their own individual practice style.

## TO YOURSELF

Listed below are several qualities and attitudes for which you should assume responsibility. These characteristics promote personal and professional growth that are essential for success throughout your residency and your profession. Your well-being is of utmost importance and a culture of respect is expected.

If you experience inappropriate behavior or harassment ([MSK Policy Against Harassment and Discrimination](#)), please report this to your RPD immediately or if you prefer to remain anonymous, contact Human Resources at (646) 677-7411 or via email at [hrrc@mskcc.org](mailto:hrrc@mskcc.org). Please see [Equality, Diversity & Inclusion and Well-Being](#).

1. Attendance and punctuality
2. Professional appearance
3. Integrity of character
4. Willingness to work
5. Diligence and application
6. Improvement and initiative
7. Enthusiasm
8. Perform duties promptly and professionally

## APPENDIX I: ADULT ONCOLOGY PHARMACY-FOCUSED PROGRAM TOPIC AREAS

TOPIC AREAS			
	REQUIRED	REQUIRED	ELECTIVE
TOPIC AREAS	Direct Patient Care Experience  Required	Case-Based Application  Acceptable	
Adult Oncology Pharmacy-focused Programs			
Hematologic Malignancies	<ul style="list-style-type: none"> <li>• Acute lymphoblastic leukemia (ALL)</li> <li>• Acute myelogenous leukemia (AML)</li> <li>• Chronic lymphocytic leukemia (CLL)</li> <li>• Chronic myelogenous leukemia (CML)</li> <li>• Hodgkin lymphoma</li> <li>• Multiple myeloma</li> <li>• Non-Hodgkin lymphoma (NHL)</li> </ul>		<ul style="list-style-type: none"> <li>• Amyloidosis</li> <li>• Myelodysplastic syndromes</li> <li>• Myeloproliferative disorders</li> <li>• Primary CNS lymphoma</li> <li>• Waldenströms macroglobulinemia</li> </ul>
Hematological Disorders			<ul style="list-style-type: none"> <li>• Aplastic anemia</li> <li>• Hemophilia A</li> <li>• Hemophilia B</li> <li>• Hemolytic anemia</li> <li>• Immune thrombocytopenic purpura (ITP)</li> <li>• Iron deficiency anemia</li> <li>• Paroxysmal nocturnal hemoglobinuria</li> <li>• Porphyria</li> <li>• Sickle cell anemia</li> <li>• Thrombotic thrombocytopenic purpura (TTP)/Hemolytic uremic syndrome (HUS)</li> <li>• Von Willebrand's disease</li> </ul>

<b>Pediatric Malignancies</b>		<ul style="list-style-type: none"> <li>• Acute lymphoblastic leukemia</li> <li>• CNS Tumors</li> <li>• Neuroblastoma</li> <li>• Non-Hodgkin lymphoma</li> <li>• Wilms Tumor</li> </ul>	<ul style="list-style-type: none"> <li>• Ewing Sarcoma</li> <li>• Osteosarcoma</li> <li>• Retinoblastoma</li> <li>• Rhabdomyosarcoma</li> </ul>
<b>Supportive Care/Symptom Management</b>	<ul style="list-style-type: none"> <li>• Anemia</li> <li>• Constipation</li> <li>• Diarrhea</li> <li>• Fatigue</li> <li>• Hypercalcemia of malignancy</li> <li>• Infection prophylaxis and management</li> <li>• Mucositis</li> <li>• Myelosuppression</li> <li>• Nausea and vomiting</li> <li>• Neutropenic fever</li> <li>• Organ-systems toxicity (i.e. - cardiotoxicity, dermatologic, hepatotoxicity, nephrotoxicity, neurotoxicity, pulmonary)</li> <li>• Pain management</li> <li>• Malignant effusions</li> <li>• Spinal cord compression syndrome</li> <li>• Superior vena cava syndrome</li> <li>• Thrombosis</li> <li>• Tumor lysis syndrome</li> </ul>	<ul style="list-style-type: none"> <li>• Extravasation</li> <li>• Hypersensitivity reactions</li> <li>• Radiation complications</li> <li>• Survivorship</li> </ul>	<ul style="list-style-type: none"> <li>• Infertility</li> <li>• Secondary malignancies</li> </ul>
<b>Transplantation</b>	<ul style="list-style-type: none"> <li>• Autologous hematopoietic stem cell therapy <ul style="list-style-type: none"> <li>• Infection prophylaxis</li> <li>• Mobilization</li> </ul> </li> <li>• Preparative regimens</li> <li>• Vaccinations</li> </ul>	<ul style="list-style-type: none"> <li>• Allogeneic hematopoietic stem cell therapy <ul style="list-style-type: none"> <li>• Graft-versus- host disease (prophylaxis, management of acute and chronic)</li> </ul> </li> <li>• Immunosupp- resion</li> <li>• Infection prophylaxis</li> <li>• Preparative regimens</li> <li>• Sinusoidal obstruction syndrome</li> <li>• Vaccinations</li> </ul>	

<b>Solid Malignancies</b>  *Must have 15 different types of common solid malignancies (comprised of the 9 listed in the direct patient care column and choose at least 6 more disease states from the case-based column for required direct patient care experiences.)	<ul style="list-style-type: none"> <li>• Breast cancer</li> <li>• Colon cancer</li> <li>• Melanoma</li> <li>• Non-small cell lung cancer</li> <li>• Ovarian cancer</li> <li>• Pancreatic cancer</li> <li>• Prostate cancer</li> <li>• Rectal cancer</li> <li>• Small cell lung cancer</li> </ul>	<ul style="list-style-type: none"> <li>• Adult sarcomas</li> <li>• Bladder cancer</li> <li>• Carcinoid cancer</li> <li>• Carcinoma of unknown primary</li> <li>• Cervical cancer</li> <li>• CNS malignancies</li> <li>• Endocrine tumors</li> <li>• Endometrial cancer</li> <li>• Esophageal cancer</li> <li>• Gastric cancer</li> <li>• Germ cell tumors</li> <li>• Head and neck cancer</li> <li>• Hepatobiliary cancers</li> <li>• Mesothelioma</li> <li>• Non-melanoma skin cancers</li> <li>• Renal cell cancer</li> <li>• Thyroid cancer</li> </ul>	<ul style="list-style-type: none"> <li>• Anal cancer</li> </ul>
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## APPENDIX II: PEDIATRIC ONCOLOGY PHARMACY-FOCUSED PROGRAM TOPIC AREAS

Pediatric Oncology Pharmacy-focused Programs			
	REQUIRED	REQUIRED	ELECTIVE
TOPIC AREAS	Direct Patient Care Experience Required	Case-Based Application Acceptable	
<b>Pediatric Hematologic Malignancies</b>	<ul style="list-style-type: none"> <li>• Acute lymphoblastic leukemia (ALL)</li> <li>• Acute myelogenous leukemia (AML)</li> <li>• Hodgkin lymphoma</li> <li>• Non-Hodgkin lymphoma</li> </ul>	<ul style="list-style-type: none"> <li>• Chronic myelogenous leukemia (CML)</li> <li>• Chronic lymphocytic leukemia (CLL)</li> <li>• Multiple myeloma</li> </ul>	<ul style="list-style-type: none"> <li>• Amyloidosis</li> <li>• Myelodysplastic syndromes</li> <li>• Myeloproliferative disorders</li> <li>• Primary CNS lymphoma</li> <li>• Waldenströms</li> <li>• Macroglobulinemia</li> </ul>
<b>Hematological Disorders</b>		<ul style="list-style-type: none"> <li>• Sickle cell anemia</li> <li>• Aplastic anemia</li> <li>• Hemophilia A</li> <li>• Hemophilia B</li> <li>• Iron deficiency anemia</li> </ul>	<ul style="list-style-type: none"> <li>• Hemolytic anemia</li> <li>• Immune thrombocytopenic purpura (ITP)</li> <li>• Paroxysmal nocturnal hemoglobinuria</li> <li>• Hemophagocytic lymphohistiocytosis (HLH)</li> <li>• Porphyria</li> <li>• Thrombotic thrombocytopenic purpura (TTP)/Hemolytic uremic syndrome (HUS)</li> <li>• Von Willebrand's disease</li> </ul>
<b>Pediatric Solid Malignancies</b>	<ul style="list-style-type: none"> <li>• CNS Tumors</li> <li>• Ewing sarcoma</li> <li>• Neuroblastoma</li> <li>• Osteosarcoma</li> <li>• Wilms tumor</li> </ul>	<ul style="list-style-type: none"> <li>• Retinoblastoma</li> <li>• Hepatoblastoma</li> <li>• Rhabdomyosarcoma</li> </ul>	<ul style="list-style-type: none"> <li>• Langerhans Cell Histiocytosis</li> </ul>
<b>Supportive Care/Symptom Management</b>	<ul style="list-style-type: none"> <li>• Anemia</li> <li>• Constipation</li> <li>• Diarrhea</li> </ul>	<ul style="list-style-type: none"> <li>• Extravasation</li> <li>• Hypersensitivity reactions</li> <li>• Malignant effusions</li> </ul>	<ul style="list-style-type: none"> <li>• Infertility</li> <li>• Secondary malignancies</li> </ul>



	<ul style="list-style-type: none"> <li>• Fatigue</li> <li>• Infection prophylaxis and management</li> <li>• Mucositis</li> <li>• Myelosuppression</li> <li>• Nausea and vomiting</li> <li>• Neutropenic fever</li> <li>• Organ-systems toxicity (i.e. - cardiotoxicity, dermatologic, hepatotoxicity, nephrotoxicity, neurotoxicity, pulmonary)</li> <li>• Pain management</li> <li>• Thrombosis</li> <li>• Tumor lysis syndrome</li> </ul>	<ul style="list-style-type: none"> <li>• Radiation complications</li> <li>• Survivorship</li> <li>• Spinal cord compression syndrome</li> <li>• Superior vena cava syndrome</li> </ul>	<ul style="list-style-type: none"> <li>• Hypercalcemia of malignancy</li> </ul>
<b>Transplantation</b>	<ul style="list-style-type: none"> <li>• Autologous hematopoietic stem cell therapy</li> <li>• Infection prophylaxis</li> <li>• Mobilization</li> <li>• Preparative regimens</li> <li>• Vaccinations</li> </ul>	<ul style="list-style-type: none"> <li>• Allogeneic hematopoietic stem cell therapy</li> <li>• Graft-versus-host disease (prophylaxis, management of acute and chronic)</li> <li>• Immunosuppression</li> <li>• Infection prophylaxis</li> <li>• Preparative regimens</li> <li>• Sinusoidal obstruction syndrome</li> <li>• Vaccinations</li> </ul>	
<b>Adult Malignancies</b>		<ul style="list-style-type: none"> <li>• Breast cancer</li> <li>• Colon cancer</li> <li>• Melanoma</li> <li>• Non-small cell lung cancer</li> <li>• Ovarian cancer</li> <li>• Prostate cancer</li> </ul>	<ul style="list-style-type: none"> <li>• Anal cancer</li> <li>• Adult sarcomas</li> <li>• Bladder cancer</li> <li>• Carcinoid cancer</li> <li>• Carcinoma of unknown primary</li> <li>• Cervical cancer</li> <li>• CNS malignancies</li> </ul>

		<ul style="list-style-type: none"><li>• Small cell lung cancer</li><li>• Germ cell tumors</li></ul>	<ul style="list-style-type: none"><li>• Endocrine tumors</li><li>• Endometrial cancer</li><li>• Esophageal cancer</li><li>• Gastric cancer</li><li>• Head and Neck cancer</li><li>• Hepatobiliary cancers</li><li>• Mesothelioma</li><li>• Non-melanoma skin cancers</li><li>• Pancreatic</li><li>• Rectal</li><li>• Renal cell cancer</li><li>• Thyroid cancer</li></ul>
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Memorial Sloan Kettering  
Cancer Center

**MSK Kids**