

University of Minnesota Lab Medicine and Pathology

Genitourinary Pathology Rotation

<u>Location:</u>	C459 Mayo
<u>Duration:</u>	One month
<u>Rotation Director:</u>	Paari Murugan, MD phone 612-273-5465 (pager 899-4268)
<u>Other Faculty:</u>	Lihong Bu, MD, PhD (pager 899-5053) Molly Klein, MD (pager 899-5052)

General Description:

The GU service receives a complete spectrum of cases ranging from simple day-to-day material to complex resections and unusual histologies. Sign-out is performed by a team of 3 specialized GU pathologists, one pathologist is on service each day. The resident will learn the pathology of prostate, bladder, testis, kidney, penis and adrenal diseases with an emphasis on oncology. This involves grossing GU specimens, learning diagnostic criteria on microscopic exam including frozen section material, understanding the use of IHC and other ancillary testing, appreciating the clinical relevance of the diagnosis and effectively communicating with the clinical team. Participation in ongoing or new research projects is highly encouraged.

Goals and Objectives:

The learning objectives below reference the corresponding ACGME core competencies: Patient Care (PC), Medical Knowledge (MK), Professionalism (Prof), Communication Skills (CS), Practice Based Learning and Improvement (PBLI), and Systems-Based Practice (SBP).

General:

- Gross large specimens (e.g. cystectomy, prostatectomy, nephrectomy, orchiectomy, penectomy) with guidance from pathology assistants and faculty. The GU section of the in-house grossing manual must be studied diligently prior to prosection (PC, MK, SBP)
- Handle frozen sections pertaining to GU on the grossing day with aid of the PA. Look up clinical history and prior diagnoses on these cases. Participate in the frozen section diagnosis and subsequent conversation with the surgeon (PC, MK, SBP, CS, Prof)
- Sign out cases alternating 2:1 with grossing days. Commensurate with level of training, look up clinical history, review slides, study relevant literature, request special studies in consultation with the pathologists, enter diagnoses and double scope with the attending pathologist for final signout (PC, MK, SBP, Prof)
- Gain a practical understanding and appreciation of clinical importance of diagnoses in GU pathology (PC, MK)
- Effectively communicate with GU clinicians, addressing their needs (Prof, MK, CS)
- Participate in translational research projects in GU pathology (MK, PBLI)
- Demonstrate respect for fellow trainees and anatomic pathology staff (Prof, CS)
- Engage in intradepartmental discussions with colleagues and faculty (Prof, MK, CS)
- Attend GU tumor board and daily consensus meeting held for discussing difficult and interesting cases (CS, MK, Prof, PBLI)

Prostate (PC, MK):

- Learn grossing of prostatectomy specimens
- Understand the anatomical zones and histology of prostate
- Know the morphology of benign hyperplasia
- Know morphology of benign mimics of cancer
- Know features of HGPIN and mimics
- Learn histology of Gleason grades 3, 4, 5
- Understand concept of Gleason grading, grade group, cancer quantification and their importance to patient management
- Learn how to evaluate prostatectomy specimens for grading, staging and evaluation of margin status

- Learn use of immunohistochemical stains for cancer diagnosis

Bladder (PC, MK):

- Learn grossing of cystoprostatectomy specimens
- Understand anatomy and histology of bladder
- Know histology of reactive urothelium, proliferative changes, metaplastic changes and benign neoplasms
- Learn pathology of BCG and TURBT changes
- Learn features of CIS, papillary bladder cancer and grading criteria
- Learn diagnosis of invasive carcinoma, determining depth of invasion and relevance to patient management
- Understand diagnosis and importance of cancer variants

Kidney and adrenal (PC, MK):

- Learn grossing of nephrectomy and nephroureterectomy specimens
- Understand anatomical landmarks of kidney
- Know histologic features of common renal carcinoma and benign renal neoplasm subtypes
- Learn ISUP grading
- Know staging parameters of renal carcinoma
- Understand the use of immunohistochemical stains in diagnosing kidney tumors
- Know histology of adrenal adenoma/carcinoma, pheochromocytoma and IHC features

Testis (PC, MK):

- Learn grossing of orchiectomy specimens
- Learn anatomy and histology of testis
- Know histology of seminoma, embryonal carcinoma, teratoma, yolk sac tumor and choriocarcinoma
- Know histology of testicular scar and dysgenetic changes including GCNIS
- Know staging parameters of testicular cancer
- Learn immunohistochemistry of testicular tumors

Penis (PC, MK):

- Learn grossing of penectomy specimens
- Learn anatomy and histology of penis
- Learn staging parameters of penile carcinoma

Assigned Reading:

- GU section: Histology for Pathologists (4th edition) by Stacey Mills
- Urological Pathology by Amin, Grignon, Srigley and Eble
- Case based literature review

Optional Reading:

- Biopsy interpretation of Prostate by Epstein and Netto
- Biopsy interpretation of Bladder by Epstein, Reuter and Amin
- WHO Classification Tumors of the Urinary System and Male Genital Organs, 2016

Call Duties: Resident will take call after office hours as per the residents/fellows call schedule

During the rotation, the trainee is expected to join the following conferences:

- Daily consensus conference (Benson, 2 pm)
- Biweekly: Tuesday GU tumor board conference (Mayo B564, 7:15 am)
- Wednesday unknown slide conference (Bell, 7 am)
- Weekly Grand Rounds (MCRB 450, 8 am)
- Wednesday didactic lecture (Bell, 9:15 am)

- Thursday morning gross conference (Bell, 7 am)

Other Requirements:

- Maintain a grossing log

Assessment methods:

Resident performance on this rotation will be assessed by:

- Formative feedback provided by attending physician(s)
- Performance evaluation completed by attending physician(s) at the end of the rotation