

## **Musculoskeletal Radiology Fellowship Curriculum:**

### **Program Goals:**

The Musculoskeletal Radiology fellowship program's primary mission is to provide a well-rounded training experience to prepare our fellows to become leaders in academic and clinical radiology. Our fellows are trained to be proficient in all aspects of musculoskeletal imaging including MRI, CT, radiographs, and procedures including arthrograms and bone biopsies.

The University of Rochester is a tertiary care center and level I trauma center with a diverse array of pathology including sports medicine, orthopedic oncology, rheumatology, spine and trauma. Academic pursuits will be fostered with multidisciplinary conferences, cutting edge technology and a faculty devoted toward innovative research projects.

### **Faculty:**

Section Head: Dr. Johnny Monu

Fellowship Director: Dr. Scott Schiffman

Fellowship Coordinator: Dawn Mulcock

Teaching Faculty:

MSK Section: Dr. Gregory Dieudonne, Dr. Mark Adams, Dr. Vanessa Zayas, Dr. Francis Burgener, Dr. Johnny Monu, Dr. Scott Schiffman

UMI Section: Dr. Gary Hollenberg, Dr. Eric Weinberg, Dr. Peter Rosella, Dr. Andrea Zynda-Weiss, Dr. Nick Kilmer, Dr. Steven Meyers

IR Section: Dr. Dev Butani, Dr. David Lee, Edward Mathes PA

### **Recommended Resources:**

#### **Books:**

Greenspan – Orthopedic Imaging

Brower – Arthritis in Black and White

Helms – Musculoskeletal MRI

#### **DVD Lecture Series:**

Resnick - Internal Derangement of Joints

Helms/Major/Anderson - Musculoskeletal MRI

Jacobson – Musculoskeletal US

**Work Rotation Overview:**

Dates	7/1-7/29	7/30-8/31	9/1-12/30	1/1-3/1	3/2-3/31	4/1-5/5	5/6-5/31	6/1-6/30
Site	SMH	CC	UMI	IR	CC	SMH	CC	SMH

**Daily work hours: 8AM – 5PM**

- **5 months SMH/IR:** The focus of this rotation will be on sports medicine, orthopedic trauma / emergency, rheumatology and tumor.
  - **Interventional Procedures (2 months):** The fellow will be in charge of approving outpatient cases for MSK imaging guided procedures. The fellow will be alerted to all bone biopsy and soft tissue biopsy cases by the interventional radiology staff and will be expected to consent the patient, perform the procedure and follow up on the post procedure aftercare or complications. The fellow must maintain a case log of all interventional procedures performed. During the two month rotation on IR the fellow will work with the SMH MSK section and get pulled to do procedures without restriction.
- **4 months UMI:** The focus of this rotation is for the fellow to become proficient at MSK MRI which will include sports medicine, oncology, rheumatology and spine.
  - **Arthrograms:** The fellow will perform fluoroscopically guided arthrograms under indirect supervision with immediate direct supervision available from the MSK faculty.
  - **Orthopedic Lab:** The fellow will participate in Orthopedic lab on afternoons in the month of October. This experience will be valuable for the fellow to learn orthopedic hardware, surgical techniques and anatomy on cadaver dissections. To accommodate this experience the fellow will work at UMI from 7:30AM-12:00PM.
- **3 months CC/Penfield:** The focus of this rotation is for the fellow to become adept at reading high volumes of orthopedic aftercare radiographs with an emphasis on recognizing patterns of injury, surgical management, and evaluating for signs of healing or hardware complication. The fellow will perform ultrasound and fluoroscopically guided arthrograms.
  - **Penfield:** Mondays and Fridays when on the CC rotation. On sporadic occasion due to staffing shortages the fellow may be asked to help cover Penfield on other days during the CC or SMH rotations. The fellow will have the ability to work intimately with the MRI technologist to optimize protocols and learn MRI physics/artifacts.

**Call Schedule:** The fellow will take MSK call at a frequency of once per week and one weekend per month. Call will include covering SMH ED and Inpatient examinations from 5-10 PM on the scheduled weekday call and from 8AM – 2PM on the scheduled weekend call. Call also includes any emergent joint aspiration procedures until the next working day (rare during off hours). Our fellows will receive a radiology workstation for the fellowship year such that call can be taken from home.

**Interdisciplinary Conferences:**

- Rad/Path/Orthopedic Tumor board: Biweekly on Tuesdays from 5:30-6:30 PM
- Rheumatology: Bimonthly on Thursdays from 8:00-9:00 AM
- Hip Preservation: Monthly on Thursdays from 7:00-8:00 AM
- Sarcoma Board: Biweekly on Thursdays from 5:00-6:00 PM
- UMI/MSK Interesting Cases: Weekly on Thursdays from 8:00-9:00 AM

The fellow will be expected to lead all conferences with the exception of the UMI/MSK interesting case conference. The fellow will be expected to review the tumor cases with one of the MSK faculty members prior to the Tuesday Tumor board (this can occur either on Monday or Tuesday at CC or SMH). The fellow will also be expected to review the cases for the Hip and Rheumatology conferences with the MSK faculty in the days leading up to those conferences.

**Academic Endeavors:** The fellow will be required to perform at least one academic project which can include either a presentation at a national meeting or a publication. The fellow will also be required to perform a grand rounds lecture for the residents once per year.

**Academic Day:** The fellow will have an academic day on Thursdays while on SMH or CC rotations. The academic day is dependent on the fellow performing academic endeavors and can be withheld at the discretion of the fellowship director if not being used for academic productivity.

**Vacation:** There will be 22 standard vacation days and 3 additional vacation days during the Christmas/New Years' holiday split. Vacation requests should be approved in advance by the section heads of the respective rotations that the vacation time would effect. Vacation time must be distributed evenly amongst the various rotations at the discretion of the fellowship director and section heads.

**Moonlighting:** The fellow is permitted to perform moonlighting under the UPMC institutional guidelines. All moonlighting activities will count towards total duty hours worked each week. Duty hours are not to exceed 80 hours a week averaged over 4 weeks per ACGME guidelines.

**Performance Review:** The fellow will receive formal feedback on their performance 3 times during the year (typically September, January and June). ACGME Milestones will be filled out and reviewed in person semiannually. In turn, the fellow will have the opportunity to evaluate both the fellowship program and its faculty member twice yearly. The fellow will also be responsible for completing a self-evaluation at the six-month and 12-month mark of their fellowship year.

**Fellow Professional Account:** Academic fund of \$1800 per year to be utilized for educational materials, dues/licenses and for travel/reservations for national/international meetings.