MSK Fellowship at Stony Brook

Overview of the program
Our program

- ACGME accredited 1 year program
- 1 fellow per year
- Rotations include MRI, MSK Ultrasound, Imaging guided MSK procedures, CT, and X-ray
- Simulates realistic work schedule of an attending radiologist
- Time shared between Diagnostic Radiology and Interventional Radiology
Why Stony Brook?

- No competition amongst fellows for cases
- Abundance of procedure opportunities
- Pediatric MSK cases are read by MSK section
- Busy – fellowship training should be busy and hectic and that’s a good thing
- ACGME accredited program means you will NOT be asked to cover ER or non-MSK on-call coverage as an ‘Attending’ level radiologist
- One of highest paid fellowship post in the country
- Experience both Academic and Private radiology setting
- Truly unique pathologies
Van Ness Rotationplasty
Enchondroma protuberance

Rarely an enchondroma may extend through the cortex and demonstrate an exophytic growth pattern. This is known as an enchondroma protuberans, and may either be seen sporadically or as part of Ollier disease.
43-year-old female presenting with large mass/growth in upper right thigh which began since puberty. It has increased in size in the last 3 months. Patient has history of unspecified tumor syndrome since birth.
MSK faculties

Daichi Hayashi
MD PhD
Fellowship PD
Associate Professor

Kevin Baker
MD
Residency PD
Assistant Professor

Elaine Gould
MD FACR
MSK Section Head
Chair Professor

Kathleen Finzel
MD
Associate Professor

Musa Mufti
MD
Assistant Professor
IR faculties

Dr Ferretti  Dr Gupta  Dr Suprenant  Dr Sung  Dr Klayman
Fellow will be working at these 3 sites:

- Stony Brook University Hospital
- Outpatient Imaging Center at Stony Brook Road
- Outpatient Imaging Center at Commack

Satellite hospitals and imaging centers at Southampton, Greenport, Riverhead, and Hampton Bays. Studies are read remotely. Fellow does not go there.
Virtual tour of University Hospital
Outpatient Training Sites

- Stony Brook Advanced Imaging (outpatient imaging centers) at Stony Brook Road and Commack

X-ray, CT, MRI, Ultrasound, DEXA

Fluoroscopy suite

Outpatient MSK procedures with MSK attending
Duties and responsibilities (1)

- You will be responsible for presenting cases at:
  - Soft Tissue Sarcoma Tumor Board with orthopedic oncology service (every 1st and 3rd Tuesday morning at 7 am)
  - Orthopedic Tumor Board with orthopedic surgery department (every 4th Wednesday morning at 7 am)
  - Annual Orthopedic Intern teaching for imaging relevant to orthopedic residents
  - Monthly Rheumatology case conference and fellow teaching conference
- Case conference and didactic lecture for Stony Brook Radiology Residents
- Weekly MSK Sectional Conference (=MSK Fellow teaching conference)
- Informal teaching of Radiology Residents and rotating Medical Students in the Reading Room
Duties and responsibilities (2)

- MSK Interventional procedures
  - Manage consultations from in-house/ER physicians for inpatient procedure request
  - Discuss indications with requesting physician
  - Pre-procedure documentation in EMR (CERNER)
  - Perform procedure with MSK or IR attending
  - Post-procedure documentation in EMR
  - Dictate procedure report on Powerscribe
- Schedule and perform outpatient MSK procedures with MSK or IR attending
Duties and responsibilities (3)

- Dictation of MSK cases, mainly CT and MRI, but also US and X-ray
- Manage consultations from requesting physicians for “wet read” as well as review of cases that have already been read for clarification
- “Second opinion” consultation for outside imaging studies
- If you see any critical finding that needs to be urgently communicated to requesting physician or important incidental finding that needs special attention by requesting physicians, you shall call them by telephone and discuss the findings, and document it in your report. If you are not sure, but suspect something may needs verbal communication, then ask MSK attending then call the physician. Do not wait until the attending “read-out”. You will become more confident in doing this as you gain more experience once you start fellowship.
Weekend calls for MSK service

- You will be assigned weekend calls when one of MSK attendings is on weekend shift
- Currently, frequency is one weekend a month (but this may be subject to change in the future)
- Fellow will dictate MSK cross-sectional studies (CT, MR, Ultrasound) from ER and inpatients first, then outpatient studies
- When Fellow runs of MSK cross-sectional studies to dictate, then dictate X-rays from ER and inpatients
- Fellow is protected by ACGME duty-hour restriction just like residents, and thus there is always one day off per every seven days – a big advantage of ACGME accredited fellowship
- Every report you dictate will need to be signed off (“approved”) by attending radiologists.
- You will NOT do standalone ER-coverage at an attending level (you cannot issue ‘final report’ yourself)
Types of procedures

- IR service
  - Kyphoplasty
  - Bone tumor biopsy
  - Soft tissue tumor biopsy
  - Bone marrow biopsy
  - Radiofrequency ablation of osteoid osteoma

- MSK service
  - Joint aspiration
  - Cyst/fluid collection aspiration
  - Steroid injection/LA injection
  - Arthrogram injection for CTA or MRA

- Any procedure under sedation or GA
- Any procedure when MSK attending not available
Our PACS

◊ PACS – GE Centricity, integrated with Work Flow Manager (RIS and EMR integrated)
Realistic daily schedule (University Hospital)

- 8:00 am – Dictation of MSK cross-sectional cases
- 9:00 am – Procedure in IR (Kyphoplasty with Dr Ferretti)
- 11:00 am – Dictation of MSK cross-sectional cases
- 12:00 pm – Didactic lecture for radiology residents on MSK topic, followed by lunch break
- 1:00 pm – post-procedure follow-up of kyphoplasty patient, complete post procedure documentations and discharge instructions if outpatient
- 1:30 pm – Dictation of MSK cross-sectional, US, and X-ray cases
- 2:30 pm – Procedure (Shoulder joint aspiration to rule out septic joint for an inpatient)
- 3:30 pm – Orthopedic surgeon consults you for a second opinion of outside studies
- Towards 5 pm – Make sure all “Stat” ER, Inpatient and Outpatient cases are dictated before the end of day and ask MSK attending to sign them off
Realistic daily schedule (University Hospital)

- 7:00 am – Soft Tissue Sarcoma board
- 8:00 am – Dictation of MSK cross-sectional, US, and X-ray cases
- 11:00 am – MSK Sectional Conference
- 2:45 pm – Dictation of MSK cross-sectional, US, and X-ray cases
- Towards 5 pm – Make sure all “Stat” ER, Inpatient and Outpatient cases are dictated before the end of day and ask MSK attending to sign them off
Realistic daily schedule (Outpatient Center)

- 8:00 am – Dictation of MSK cross-sectional cases
- 9:00 am – Knee joint aspiration to rule out septic joint
- 10:00 am – Hip joint steroid injection
- 11:00 am – Shoulder arthrogram injection
- 1:00 pm – Retrocalcaneal bursa steroid injection
- 2:00 pm – Knee joint steroid injection
- 3:00 pm – Aspiration of soft tissue fluid collection in a thigh to rule out postoperative infection
- 4:00 – 5:00 pm – Dictation of MSK cross-sectional and US cases. Make sure all “Stat” ER, Inpatient and Outpatient cases are dictated before the end of day and ask MSK attending to sign them off
MSK Ultrasound

- We have multiple trained US techs at outpatient imaging centers at Stony Brook and Commack.
- If you want to gain technical proficiency for MSK US scanning itself, you can spend some time with skilled US techs at Stony Brook Road Office to get training.
- Please be advised that radiologists at Stony Brook only interpret MSK US studies and do not routinely perform the scanning. If US techs have any questions, MSK radiologists do instruct them appropriately, and scan together as needed.
Dictation on Powerscribe

- MSK MRI – Standardized templates for each joint available, encouraged to use the templates but not mandatory (not all attending radiologists use templates, but report based on templates do help facilitate read-out by attending).
- MSK CT – free dictation (no template)
- MSK US – standardized templates for each joint (mandatory use of templates)
- MSK X-rays – Standardized templates available

- IR procedure dictation – Different attending radiologists use their own personalized templates, so you can find the one that suits you and use it.
Scholarly activities

◎ Quality Improvement Project
  ◎ Just like the one you had to do for your residency
  ◎ Highly encouraged to start early and aim to present at RSNA and/or ACR next year

◎ Scientific study or educational exhibit
  ◎ Aim for presentation at Society of Skeletal Radiology, American Roentgen Ray Society, American College of Roentgenology, International Skeletal Society, and RSNA
  ◎ You will become a Fellow member of SSR after you begin your fellowship
Previous Fellow (1)

(1) Extremity soft tissue sarcomas and mimics - radiologic pathologic correlation.
(2) Hallux valgus correction surgeries and their imaging appearances before and after surgery. EPOS (electronic poster) at European Congress of Radiology Annual Meeting March 3-7, 2021.

(1) Soft tissue sarcomas and their mimics in the extremities – imaging features and histopathological correlation.
(2) Atypical clinical manifestation of gout in extremities which may lead to misdiagnosis on imaging – radiologists beware! Electronic educational exhibit at ARRS meeting April 18-22nd, 2021.

(1) Preoperative and postoperative imaging of a variety of hallux valgus correction surgeries – surgical correlation and key measurements.
(2) MR imaging of anterior cruciate ligament rupture and the spectrum of associated injuries. Electronic educational exhibit at ARRS meeting April 18-22nd, 2021.
Previous Fellow (2)

(1) Upper extremity nerve entrapment syndromes - anatomy, pathomechanism, clinical and imaging features.
(2) Multimodality pictorial review of the shoulder arthroplasty complications: what orthopedic surgeons want to know.

(1) Pins and needles in hands, wrists, and arms – pictorial review of upper extremity peripheral neuropathies.
(2) Indications, preoperative planning and complications of shoulder arthroplasties: what the orthopedic surgeon want to know.
Educational exhibit at RSNA 2021 (Nov-Dec 2021).

(1) Scapular fracture classifications – what orthopedic surgeons want to know.
(2) Pre-, intra- and postoperative imaging assessment of different midfoot and hindfoot surgeries.
Educational Exhibit at ARRS 2022 (May 2022)

Work in progress for Society of Skeletal Society Meeting in March 2022

Radiomics research for soft tissue sarcoma of extremities (ongoing)
Help and support

- Fellowship is meant to be hectic and stressful.
- “Easy” and “relaxing” fellowship year will NOT help you for the upcoming Attending job.
- The more you encounter problems during the fellowship year and learn how to handle and manage them, the better.
- This includes how to be able to ‘multitask’ at times, and ‘prioritize’ tasks according the order of urgency and importance.
- If any issues or problems arise, I encourage you to talk to me early so that we can address them quickly – I don’t want you suffer unnecessarily.
- Residents at Stony Brook are always really helpful at the beginning of your training, especially pertaining to practical issues like how to use PACS, EMR, how to contact someone by phone, how to look up schedule, etc...
Good luck with the Match (and Core Exam)!

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