Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

Response was added on 09/11/2018 9:11am.

1) Attending/Advisor

- ◯ Blinder
- ◯ Cho
- ⊗ Guenette
- ◯ Hsu
- ◯ Huang
- ◯ Kim
- ◯ Klufas
- ◯ Lee
- ◯ Mukundan
- ◯ Nunez
- ◯ Young
- ◯ Zamani

2) Trainee Opportunity

- ☒ First Author Conference Abstract
- ☒ First Author Manuscript
- ☒ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☐ Undergraduate/Postbac
- ☐ Medical Student
- ☒ Radiology Resident
- ☒ Neuroradiology Fellow

4) Research Topic

Dual Energy Neck CT

5) Brief Project Description Including Trainee Responsibilities

We are routinely performing DECT of the neck on several scanners and we have a database of patients. We will perform a comparison of signal and artifacts across scanners. We will then look at different subsets of patients to evaluate the utility of DECT in routine care for different disease processes. We are also open to exploring other technical aspects of DECT in the neck.

6) Anticipated Trainee Time Commitment

- ◯ Minimal (e.g. educational exhibit, small chart review)
- ⊗ Modest (e.g. large chart review, image post-processing)
- ◯ Long-Term (e.g. prospective study with intermittent imaging review)
- ◯ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ◯ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

We will teach you how to post-process the DECT images if you do not yet know how to do that.

8) Project Status

- ⊗ New
- ◯ Ongoing
- ◯ Completed

9) Publication Information (for completed projects)

Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

Response was added on 09/11/2018 11:13am.

1) Attending/Advisor

- ◯ Blinder
- ⊗ Cho
- ◯ Guenette
- ◯ Hsu
- ◯ Huang
- ◯ Kim
- ◯ Klufas
- ◯ Lee
- ◯ Mukundan
- ◯ Nunez
- ◯ Young
- ◯ Zamani

2) Trainee Opportunity

- ☐ First Author Conference Abstract
- ☒ First Author Manuscript
- ☐ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☒ Undergraduate/Postbac
- ☒ Medical Student
- ☐ Radiology Resident
- ☐ Neuroradiology Fellow

4) Research Topic

Case Report: Intramedullary Lipoma

5) Brief Project Description Including Trainee Responsibilities

Interesting case report that we can try to publish in a spine journal. If we cannot get it into a spine journal, it can be sent as a case of the day to ACR or Aunt Minnie. Jeff Guenette will help guide the project.

6) Anticipated Trainee Time Commitment

- ⊗ Minimal (e.g. educational exhibit, small chart review)
- ◯ Modest (e.g. large chart review, image post-processing)
- ◯ Long-Term (e.g. prospective study with intermittent imaging review)
- ◯ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ◯ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

_____

8) Project Status

- ⊗ New
- ◯ Ongoing
- ◯ Completed

9) Publication Information (for completed projects)

_____

Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

Response was added on 09/11/2018 11:17am.

1) Attending/Advisor

- ◯ Blinder
- ◯ Cho
- ◯ Guenette
- ◯ Hsu
- ◯ Huang
- ◯ Kim
- ◯ Klufas
- ⊗ Lee
- ◯ Mukundan
- ◯ Nunez
- ◯ Young
- ◯ Zamani

2) Trainee Opportunity

- ☒ First Author Conference Abstract
- ☐ First Author Manuscript
- ☒ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☐ Undergraduate/Postbac
- ☐ Medical Student
- ☒ Radiology Resident
- ☒ Neuroradiology Fellow

4) Research Topic

MRI-Guided Head/Neck/Spine Cryoablation

5) Brief Project Description Including Trainee Responsibilities

Review of ~70 cases of MRI-guided cryoablation of lesions adjacent to major neurovascular structures and/or mucosal surfaces. We have the patient list. Trainee will perform chart review to gather the necessary data in a table. Trainee can first-author an ASNR or RSNA abstract/presentation. Trainee will be middle author on paper.

6) Anticipated Trainee Time Commitment

- ◯ Minimal (e.g. educational exhibit, small chart review)
- ⊗ Modest (e.g. large chart review, image post-processing)
- ◯ Long-Term (e.g. prospective study with intermittent imaging review)
- ◯ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ◯ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

_____

8) Project Status

- ⊗ New
- ◯ Ongoing
- ◯ Completed

9) Publication Information (for completed projects)

_____

Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

Response was added on 09/11/2018 11:24am.

1) Attending/Advisor

- ◯ Blinder
- ◯ Cho
- ⊗ Guenette
- ◯ Hsu
- ◯ Huang
- ◯ Kim
- ◯ Klufas
- ◯ Lee
- ◯ Mukundan
- ◯ Nunez
- ◯ Young
- ◯ Zamani

2) Trainee Opportunity

- ☒ First Author Conference Abstract
- ☒ First Author Manuscript
- ☐ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☐ Undergraduate/Postbac
- ☒ Medical Student
- ☒ Radiology Resident
- ☐ Neuroradiology Fellow

4) Research Topic

Imaging of Radiation Therapy (Skull Base, Neck, Spine)

5) Brief Project Description Including Trainee Responsibilities

Educational exhibits explaining what the radiologist should know about the types of radiation therapy used, pre-treatment and post-treatment concerns, and imaging findings in the skull base, neck, and spine. If interested, good educational exhibits could be turned in to review papers.

6) Anticipated Trainee Time Commitment

- ⊗ Minimal (e.g. educational exhibit, small chart review)
- ◯ Modest (e.g. large chart review, image post-processing)
- ◯ Long-Term (e.g. prospective study with intermittent imaging review)
- ◯ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ◯ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

_____

8) Project Status

- ⊗ New
- ◯ Ongoing
- ◯ Completed

9) Publication Information (for completed projects)

_____

Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

Response was added on 09/11/2018 11:57am.

1) Attending/Advisor

- ◯ Blinder
- ◯ Cho
- ⊗ Guenette
- ◯ Hsu
- ◯ Huang
- ◯ Kim
- ◯ Klufas
- ◯ Lee
- ◯ Mukundan
- ◯ Nunez
- ◯ Young
- ◯ Zamani

2) Trainee Opportunity

- ☒ First Author Conference Abstract
- ☒ First Author Manuscript
- ☐ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☐ Undergraduate/Postbac
- ☒ Medical Student
- ☒ Radiology Resident
- ☐ Neuroradiology Fellow

4) Research Topic

IgG4 Review

5) Brief Project Description Including Trainee Responsibilities

There's quite a bit of new literature on IgG4 and pseudotumor. The radiology understanding of these processes is outdated. An ASNR/RSNA educational exhibit would be very timely. A good abstract could be converted into a good review paper.

6) Anticipated Trainee Time Commitment

- ⊗ Minimal (e.g. educational exhibit, small chart review)
- ◯ Modest (e.g. large chart review, image post-processing)
- ◯ Long-Term (e.g. prospective study with intermittent imaging review)
- ◯ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ◯ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

8) Project Status

- ⊗ New
- ◯ Ongoing
- ◯ Completed

9) Publication Information (for completed projects)

Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

Response was added on 09/11/2018 12:22pm.

1) Attending/Advisor

- ◯ Blinder
- ◯ Cho
- ⊗ Guenette
- ◯ Hsu
- ◯ Huang
- ◯ Kim
- ◯ Klufas
- ◯ Lee
- ◯ Mukundan
- ◯ Nunez
- ◯ Young
- ◯ Zamani

2) Trainee Opportunity

- ☒ First Author Conference Abstract
- ☒ First Author Manuscript
- ☐ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☐ Undergraduate/Postbac
- ☒ Medical Student
- ☒ Radiology Resident
- ☐ Neuroradiology Fellow

4) Research Topic

TMJ vs Meniscus vs Intervertebral Disc

5) Brief Project Description Including Trainee Responsibilities

The TMJ, knee meniscus, and intervertebral discs have some interesting similarities and differences physiologically. These similarities and differences are not well described. This topic could make for an interesting ASNR or RSNA educational exhibit with a review of the basic science literature and imaging correlations.

6) Anticipated Trainee Time Commitment

- ⊗ Minimal (e.g. educational exhibit, small chart review)
- ◯ Modest (e.g. large chart review, image post-processing)
- ◯ Long-Term (e.g. prospective study with intermittent imaging review)
- ◯ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ◯ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

_____

8) Project Status

- ⊗ New
- ◯ Ongoing
- ◯ Completed

9) Publication Information (for completed projects)

_____

Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

Response was added on 09/11/2018 1:20pm.

1) Attending/Advisor

- ◯ Blinder
- ◯ Cho
- ⊗ Guenette
- ◯ Hsu
- ◯ Huang
- ◯ Kim
- ◯ Klufas
- ◯ Lee
- ◯ Mukundan
- ◯ Nunez
- ◯ Young
- ◯ Zamani

2) Trainee Opportunity

- ☒ First Author Conference Abstract
- ☒ First Author Manuscript
- ☐ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☐ Undergraduate/Postbac
- ☒ Medical Student
- ☒ Radiology Resident
- ☐ Neuroradiology Fellow

4) Research Topic

Giant Fibrovascular Polyp of the Esophagus

5) Brief Project Description Including Trainee Responsibilities

There is a classic entity called giant fibrovascular polyp of the esophagus (often pedunculated in the pharynx at the junction of the esophagus). New pathology literature suggests that these are liposarcomas. There is no radiology literature on this topic and there is a sarcoma pathologist here who is interested in the topic.

6) Anticipated Trainee Time Commitment

- ⊗ Minimal (e.g. educational exhibit, small chart review)
- ◯ Modest (e.g. large chart review, image post-processing)
- ◯ Long-Term (e.g. prospective study with intermittent imaging review)
- ◯ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ◯ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

_____

8) Project Status

- ⊗ New
- ◯ Ongoing
- ◯ Completed

9) Publication Information (for completed projects)

_____

Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

Response was added on 09/11/2018 2:08pm.

1) Attending/Advisor

- ◯ Blinder
- ◯ Cho
- ⊗ Guenette
- ◯ Hsu
- ◯ Huang
- ◯ Kim
- ◯ Klufas
- ◯ Lee
- ◯ Mukundan
- ◯ Nunez
- ◯ Young
- ◯ Zamani

2) Trainee Opportunity

- ☒ First Author Conference Abstract
- ☒ First Author Manuscript
- ☒ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☐ Undergraduate/Postbac
- ☐ Medical Student
- ☒ Radiology Resident
- ☒ Neuroradiology Fellow

4) Research Topic

Dual Phase PET-CT for Tumor Recurrence

5) Brief Project Description Including Trainee Responsibilities

A BWH paper published ~15 years ago showed dual phase PET can differentiate brain tumor recurrence from radiation necrosis. It would be good to re-examine this concept, particularly comparing with DWI and perfusion results. We will have to start by gathering a list of patients - the nuclear medicine technologists may be able to help.

6) Anticipated Trainee Time Commitment

- ◯ Minimal (e.g. educational exhibit, small chart review)
- ⊗ Modest (e.g. large chart review, image post-processing)
- ◯ Long-Term (e.g. prospective study with intermittent imaging review)
- ◯ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ◯ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

_____

8) Project Status

- ⊗ New
- ◯ Ongoing
- ◯ Completed

9) Publication Information (for completed projects)

_____

Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

1) Attending/Advisor

- ◯ Blinder
- ◯ Cho
- ◯ Guenette
- ◯ Hsu
- ⊗ Huang
- ◯ Kim
- ◯ Klufas
- ◯ Lee
- ◯ Mukundan
- ◯ Nunez
- ◯ Young
- ◯ Zamani

2) Trainee Opportunity

- ☒ First Author Conference Abstract
- ☒ First Author Manuscript
- ☒ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☒ Undergraduate/Postbac
- ☒ Medical Student
- ☒ Radiology Resident
- ☒ Neuroradiology Fellow

4) Research Topic

Radiomic Predictors of SRS Response: Brain Mets

5) Brief Project Description Including Trainee Responsibilities

This is a retrospective evaluation of MRI database consist of patients with brain metastasis before and following SRS. The database is already available and most work will focus on tumor segmentation and application of machine learning techniques to extracted imaging features.

6) Anticipated Trainee Time Commitment

- ◯ Minimal (e.g. educational exhibit, small chart review)
- ◯ Modest (e.g. large chart review, image post-processing)
- ◯ Long-Term (e.g. prospective study with intermittent imaging review)
- ◯ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ⊗ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

Will learn to use Slicer3D, Matlab/Python

8) Project Status

- ◯ New
- ⊗ Ongoing
- ◯ Completed

9) Publication Information (for completed projects)

Locked by rh86 (Raymond Huang) on 09/12/2018 7:54am

Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

1) Attending/Advisor

- ◯ Blinder
- ◯ Cho
- ◯ Guenette
- ◯ Hsu
- ⊗ Huang
- ◯ Kim
- ◯ Klufas
- ◯ Lee
- ◯ Mukundan
- ◯ Nunez
- ◯ Young
- ◯ Zamani

2) Trainee Opportunity

- ☒ First Author Conference Abstract
- ☒ First Author Manuscript
- ☒ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☒ Undergraduate/Postbac
- ☒ Medical Student
- ☒ Radiology Resident
- ☒ Neuroradiology Fellow

4) Research Topic

Correlation of brain morphology metrics with NANO scale in patients with brain tumor

5) Brief Project Description Including Trainee Responsibilities

In this post-hoc analysis of prospective collection dataset consist of patients with brain tumor who underwent NANO (a standard neuro-cognitive scoring system) evaluation. The MRI data at time of clinical evaluation will be analyzed to identify features that correlate with the NANO score. The goal is to generate an objective surrogate of neuro-cognitive function for this patient population.

6) Anticipated Trainee Time Commitment

- ◯ Minimal (e.g. educational exhibit, small chart review)
- ◯ Modest (e.g. large chart review, image post-processing)
- ◯ Long-Term (e.g. prospective study with intermittent imaging review)
- ◯ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ⊗ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

This project will require learning Matlab and statistics.

8) Project Status

- ◯ New
- ⊗ Ongoing
- ◯ Completed

9) Publication Information (for completed projects)

Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

1) Attending/Advisor

- ◯ Blinder
- ◯ Cho
- ◯ Guenette
- ◯ Hsu
- ⊗ Huang
- ◯ Kim
- ◯ Klufas
- ◯ Lee
- ◯ Mukundan
- ◯ Nunez
- ◯ Young
- ◯ Zamani

2) Trainee Opportunity

- ☒ First Author Conference Abstract
- ☒ First Author Manuscript
- ☒ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☒ Undergraduate/Postbac
- ☒ Medical Student
- ☒ Radiology Resident
- ☒ Neuroradiology Fellow

4) Research Topic

Imaging predictors of immunotherapy response in patients with high grade glioma

5) Brief Project Description Including Trainee Responsibilities

This is a post-hoc evaluation of imaging data for patients in a immunotherapy trial. Radiomic features are extracted from pre and post-treatment MRI to construct predictive models of treatment response and survival.

6) Anticipated Trainee Time Commitment

- ◯ Minimal (e.g. educational exhibit, small chart review)
- ◯ Modest (e.g. large chart review, image post-processing)
- ◯ Long-Term (e.g. prospective study with intermittent imaging review)
- ⊗ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ◯ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

This project is currently closed to new research participant.

8) Project Status

- ◯ New
- ⊗ Ongoing
- ◯ Completed

9) Publication Information (for completed projects)

Locked by rh86 (Raymond Huang) on 09/12/2018 12:33am

Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

1) Attending/Advisor

- ◯ Blinder
- ◯ Cho
- ◯ Guenette
- ◯ Hsu
- ⊗ Huang
- ◯ Kim
- ◯ Klufas
- ◯ Lee
- ◯ Mukundan
- ◯ Nunez
- ◯ Young
- ◯ Zamani

2) Trainee Opportunity

- ☒ First Author Conference Abstract
- ☒ First Author Manuscript
- ☒ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☒ Undergraduate/Postbac
- ☒ Medical Student
- ☒ Radiology Resident
- ☒ Neuroradiology Fellow

4) Research Topic

Radiogenomic analysis of Oligodendroglioma

5) Brief Project Description Including Trainee Responsibilities

This is a retrospective multi-center evaluation of imaging data consist of patients with oligodendroglioma. Preoperative MRI data will be analyzed for correlates of tumor mutations as well as treatment response.

6) Anticipated Trainee Time Commitment

- ◯ Minimal (e.g. educational exhibit, small chart review)
- ◯ Modest (e.g. large chart review, image post-processing)
- ◯ Long-Term (e.g. prospective study with intermittent imaging review)
- ◯ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ⊗ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

Participants will learn to use slicer3D, Matlab/Python.

8) Project Status

- ⊗ New
- ◯ Ongoing
- ◯ Completed

9) Publication Information (for completed projects)

Locked by rh86 (Raymond Huang) on 09/12/2018 12:38am

Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

1) Attending/Advisor

- ◯ Blinder
- ◯ Cho
- ◯ Guenette
- ◯ Hsu
- ⊗ Huang
- ◯ Kim
- ◯ Klufas
- ◯ Lee
- ◯ Mukundan
- ◯ Nunez
- ◯ Young
- ◯ Zamani

2) Trainee Opportunity

- ☒ First Author Conference Abstract
- ☒ First Author Manuscript
- ☒ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☒ Undergraduate/Postbac
- ☒ Medical Student
- ☒ Radiology Resident
- ☒ Neuroradiology Fellow

4) Research Topic

FGF mutation variations in adult and pediatric glioma

5) Brief Project Description Including Trainee Responsibilities

This is a retrospective evaluation of MRI data from patients with glioma carrying different FGF mutations. Imaging features including growth pattern and recurrence pattern will be correlated to specific variants and ultimately to the survival outcome data.

6) Anticipated Trainee Time Commitment

- ◯ Minimal (e.g. educational exhibit, small chart review)
- ◯ Modest (e.g. large chart review, image post-processing)
- ◯ Long-Term (e.g. prospective study with intermittent imaging review)
- ◯ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ⊗ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

Trainee will learn to post-process MRI data and apply radiomic analysis using Matlab

8) Project Status

- ⊗ New
- ◯ Ongoing
- ◯ Completed

9) Publication Information (for completed projects)

Locked by rh86 (Raymond Huang) on 09/12/2018 12:43am

Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

Response was added on 09/12/2018 1:34pm.

1) Attending/Advisor

- ◯ Blinder
- ◯ Cho
- ◯ Guenette
- ◯ Hsu
- ◯ Huang
- ◯ Kim
- ◯ Klufas
- ◯ Lee
- ◯ Mukundan
- ⊗ Nunez
- ◯ Young
- ◯ Zamani

2) Trainee Opportunity

- ☒ First Author Conference Abstract
- ☒ First Author Manuscript
- ☐ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☐ Undergraduate/Postbac
- ☐ Medical Student
- ☒ Radiology Resident
- ☒ Neuroradiology Fellow

4) Research Topic

See 5

5) Brief Project Description Including Trainee Responsibilities

Non traumatic emergencies of the Spine: an MRI primer for the Emergency Radiologist
Olga Laur, Hari Nandu, Diego Nunez, Bharti Khurana.
Well suited for educational exhibit or pictorial essay publication. (Trainee: additional material collection, exhibit assembly, literature search)

6) Anticipated Trainee Time Commitment

- ⊗ Minimal (e.g. educational exhibit, small chart review)
- ◯ Modest (e.g. large chart review, image post-processing)
- ◯ Long-Term (e.g. prospective study with intermittent imaging review)
- ◯ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ◯ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

8) Project Status

- ◯ New
- ⊗ Ongoing
- ◯ Completed

9) Publication Information (for completed projects)

Completed during the last 6 months:
1) Haber M, Nuñez Jr D. Imaging Neurological Emergencies in Pregnancy and Puerperium. Accepted for publication Emergency Radiology

2) Shi J, Uyeda J, Potter C, Duran S, Nuñez Jr D MDCT of Laryngeal Injuries: Principles of injury recognition. Accepted for publication Radiographics

3) Shah N, Keraliya A, Nuñez Jr D, Schoenfeld A, Harris MB, Bono C, Khurana B. Injuries to the Rigid Spine. Accepted for publication Radiographics

4) George E, Khandelwal A, Potter C, Sodickson AD, Mukundan S, Nuñez Jr D, Khurana B. Blunt Traumatic Vascular Injuries of the Head and Neck in the ED. Accepted for publication in the ED

5) Sandstrom C, Nunez Jr D
Head and Cervical Spine Trauma in the elderly
Published in Neuroinaging Clin of NA

Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

Response was added on 09/12/2018 1:37pm.

1) Attending/Advisor

- ◯ Blinder
- ◯ Cho
- ◯ Guenette
- ◯ Hsu
- ◯ Huang
- ◯ Kim
- ◯ Klufas
- ◯ Lee
- ◯ Mukundan
- ⊗ Nunez
- ◯ Young
- ◯ Zamani

2) Trainee Opportunity

- ☒ First Author Conference Abstract
- ☒ First Author Manuscript
- ☐ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☐ Undergraduate/Postbac
- ☐ Medical Student
- ☒ Radiology Resident
- ☐ Neuroradiology Fellow

4) Research Topic

Ruptured Intracranial aneurysms

5) Brief Project Description Including Trainee Responsibilities

Ruptured Intracranial aneurysms: Beyond subarachnoid hemorrhage
Travis Caton, Walter Wiggins, Diego Nunez
(Trainee responsibility: Literature search, Image processing, manuscript writing)

6) Anticipated Trainee Time Commitment

- ◯ Minimal (e.g. educational exhibit, small chart review)
- ⊗ Modest (e.g. large chart review, image post-processing)
- ◯ Long-Term (e.g. prospective study with intermittent imaging review)
- ◯ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ◯ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

_____

8) Project Status

- ◯ New
- ⊗ Ongoing
- ◯ Completed

9) Publication Information (for completed projects)

_____

Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

Response was added on 09/12/2018 1:49pm.

1) Attending/Advisor

- ◯ Blinder
- ◯ Cho
- ◯ Guenette
- ◯ Hsu
- ◯ Huang
- ◯ Kim
- ◯ Klufas
- ◯ Lee
- ◯ Mukundan
- ⊗ Nunez
- ◯ Young
- ◯ Zamani

2) Trainee Opportunity

- ☒ First Author Conference Abstract
- ☒ First Author Manuscript
- ☐ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☐ Undergraduate/Postbac
- ☐ Medical Student
- ☒ Radiology Resident
- ☐ Neuroradiology Fellow

4) Research Topic

Infected intracerebral aneurysm: a spot sign mimicker

5) Brief Project Description Including Trainee Responsibilities

Review selected cases of mycotic aneurysms for which CTA has been performed. Assess imaging features on CTA to present as a pitfall of the described spot sing in ICH.
Trainee: data collection, literature review, writing of manuscript)
Discussed with Travis Caton.

6) Anticipated Trainee Time Commitment

- ◯ Minimal (e.g. educational exhibit, small chart review)
- ⊗ Modest (e.g. large chart review, image post-processing)
- ◯ Long-Term (e.g. prospective study with intermittent imaging review)
- ◯ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ◯ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

_____

8) Project Status

- ⊗ New
- ◯ Ongoing
- ◯ Completed

9) Publication Information (for completed projects)

_____

Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

Response was added on 09/17/2018 5:36pm.

1) Attending/Advisor

- ◯ Blinder
- ⊗ Cho
- ◯ Guenette
- ◯ Hsu
- ◯ Huang
- ◯ Kim
- ◯ Klufas
- ◯ Lee
- ◯ Mukundan
- ◯ Nunez
- ◯ Young
- ◯ Zamani

2) Trainee Opportunity

- ☒ First Author Conference Abstract
- ☒ First Author Manuscript
- ☒ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☐ Undergraduate/Postbac
- ☐ Medical Student
- ☒ Radiology Resident
- ☒ Neuroradiology Fellow

4) Research Topic

Total Spine MRI Abbreviated Protocol

5) Brief Project Description Including Trainee Responsibilities

Our total spine protocol is low resolution and takes 60 minutes. An abbreviated protocol would likely yield the same results. The trainee would perform a chart review and several attendings would compare the exams. The results of this study could have a large impact on our workflow and would likely result in impactful and publishable results.

6) Anticipated Trainee Time Commitment

- ◯ Minimal (e.g. educational exhibit, small chart review)
- ⊗ Modest (e.g. large chart review, image post-processing)
- ◯ Long-Term (e.g. prospective study with intermittent imaging review)
- ◯ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ◯ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

_____

8) Project Status

- ⊗ New
- ◯ Ongoing
- ◯ Completed

9) Publication Information (for completed projects)

_____

Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

Response was added on 09/24/2018 5:52pm.

1) Attending/Advisor

- ◯ Blinder
- ◯ Cho
- ◯ Guenette
- ◯ Hsu
- ◯ Huang
- ◯ Kim
- ◯ Klufas
- ◯ Lee
- ◯ Mukundan
- ◯ Nunez
- ⊗ Young
- ◯ Zamani

2) Trainee Opportunity

- ☒ First Author Conference Abstract
- ☐ First Author Manuscript
- ☒ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☐ Undergraduate/Postbac
- ☐ Medical Student
- ☒ Radiology Resident
- ☐ Neuroradiology Fellow

4) Research Topic

Computer Assisted Diagnosis of Primary Brain Tumor

5) Brief Project Description Including Trainee Responsibilities

Work includes semi-automated segmenation/parcelation, support vector machine analyses and image and text based deep learning approaches innovation in post-processing and analysis. Trainee involvement can include segmentation, medical record analysis, statistical analysis, coding and/or writing depending on expertise, time and interest.

6) Anticipated Trainee Time Commitment

- ◯ Minimal (e.g. educational exhibit, small chart review)
- ◯ Modest (e.g. large chart review, image post-processing)
- ◯ Long-Term (e.g. prospective study with intermittent imaging review)
- ◯ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ⊗ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

_____

8) Project Status

- ◯ New
- ⊗ Ongoing
- ◯ Completed

9) Publication Information (for completed projects)

Lat 12 mo: 30.Qin L†, Li X†, Stroiney A, Qu JR, Reardon DA*, Young GS*(†Co-first authors, *Senior and Co-corresponding Author). Advanced MRI Assessment to Predict Benefit of anti-PD1 Immunotherapy Response in Patients with Recurrent Glioblastoma. Neuroradiology. 2017 Feb;59(2):135-145. doi: 10.1007/s00234-016-1769-8. PMID:28070598

31.Qin L†, Li A†, Qu JR, Reinshagen K, Li X, Cheng X, Bryant A, Young GS *. (†Co-first authors; *Senior and Corresponding Author; Co-first author AL was medical student working under my direct supervision). Normalization of ADC does not improve correlation with overall survival in patients with high-grade glioma. Journal of Neuro-Oncology 2018 Apr;137(2):313-319. doi: 10.1007/s11060-017-2719-y. Epub 2018 Jan 30.PMID:29383647

32.Qin L, Li X, Li A, Chen S, Qu JR, Reinshagen K, Hu J, Himes N, Gao L, Xu X, Young GS* (*Senior and Corresponding Author). Clinical Validation of Automatable Gaussian Normalized CBV in Brain Tumor Analysis: Superior Reproducibility and Slightly Better Association with Survival than Current Standard Manual Normal Appearing White Matter Normalization. Translational Oncology. Translational Oncology Dec 2018 11(6):1398-1405. https://doi.org/10.1016/j.tranon.2018.07.017

Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

Response was added on 09/24/2018 5:56pm.

1) Attending/Advisor

- ◯ Blinder
- ◯ Cho
- ◯ Guenette
- ◯ Hsu
- ◯ Huang
- ◯ Kim
- ◯ Klufas
- ◯ Lee
- ◯ Mukundan
- ◯ Nunez
- ⊗ Young
- ◯ Zamani

2) Trainee Opportunity

- ☒ First Author Conference Abstract
- ☒ First Author Manuscript
- ☒ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☐ Undergraduate/Postbac
- ☐ Medical Student
- ☒ Radiology Resident
- ☒ Neuroradiology Fellow

4) Research Topic

Late onset Epilepsy and Neurodegeneration

5) Brief Project Description Including Trainee Responsibilities

Volumetrics of late onset epilepsy patients. May involve working with clinical and/or research software packages.

6) Anticipated Trainee Time Commitment

- ◯ Minimal (e.g. educational exhibit, small chart review)
- ◯ Modest (e.g. large chart review, image post-processing)
- ⊗ Long-Term (e.g. prospective study with intermittent imaging review)
- ◯ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ◯ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

_____

8) Project Status

- ⊗ New
- ◯ Ongoing
- ◯ Completed

9) Publication Information (for completed projects)

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Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

Response was added on 09/24/2018 6:00pm.

1) Attending/Advisor

- ◯ Blinder
- ◯ Cho
- ◯ Guenette
- ◯ Hsu
- ◯ Huang
- ◯ Kim
- ◯ Klufas
- ◯ Lee
- ◯ Mukundan
- ◯ Nunez
- ⊗ Young
- ◯ Zamani

2) Trainee Opportunity

- ☒ First Author Conference Abstract
- ☐ First Author Manuscript
- ☒ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☐ Undergraduate/Postbac
- ☐ Medical Student
- ☒ Radiology Resident
- ☒ Neuroradiology Fellow

4) Research Topic

CT Radiation Dose

5) Brief Project Description Including Trainee Responsibilities

Analysis of DNA and RNA effects of CT Radiation. Trainee involvement could include coordination of sample collection, statistical analysis and writing of manuscript.

6) Anticipated Trainee Time Commitment

- ◯ Minimal (e.g. educational exhibit, small chart review)
- ◯ Modest (e.g. large chart review, image post-processing)
- ⊗ Long-Term (e.g. prospective study with intermittent imaging review)
- ◯ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ◯ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

8) Project Status

- ◯ New
- ⊗ Ongoing
- ◯ Completed

9)	Publication Information (for completed projects)	Nawfel R†, Young GS†*. Measured Head CT/CTA Skin Dose and ICU Patient Cumulative Exposure. AJNR 2017 Mar;38(3):455-461. doi: 10.3174/ajnr.A5040. Epub 2017 Jan 19; (†Co-first authors, *Senior, Last and Corresponding Author). -Nawfel RD and Young GS, Reply (Response to letter to editor), American Journal of Neuroradiology August 2017, 38 (8) E56; doi: 10.3174/ajnr.A5242. PMID: 28546241

Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

Response was added on 09/24/2018 6:02pm.

1) Attending/Advisor

- ◯ Blinder
- ◯ Cho
- ◯ Guenette
- ◯ Hsu
- ◯ Huang
- ◯ Kim
- ◯ Klufas
- ◯ Lee
- ◯ Mukundan
- ◯ Nunez
- ⊗ Young
- ◯ Zamani

2) Trainee Opportunity

- ☐ First Author Conference Abstract
- ☒ First Author Manuscript
- ☐ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☐ Undergraduate/Postbac
- ☐ Medical Student
- ☐ Radiology Resident
- ☒ Neuroradiology Fellow

4) Research Topic

Neuroimaging in Pregnancy

5) Brief Project Description Including Trainee Responsibilities

Invited chapter reviewing neuroimaging in pregnancy - completed

6) Anticipated Trainee Time Commitment

- ◯ Minimal (e.g. educational exhibit, small chart review)
- ◯ Modest (e.g. large chart review, image post-processing)
- ◯ Long-Term (e.g. prospective study with intermittent imaging review)
- ◯ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ⊗ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

Already complete

8) Project Status

- ◯ New
- ◯ Ongoing
- ⊗ Completed

9)	Publication Information (for completed projects)	13. Chansakul T, Young GS (corresponding and senior author. First author was my fellow). Neuro-imaging in Women, a chapter in Women's Health in Neurology issue of Seminars in Neurology, Issue Ed. Steve Feske. Seminars in Neurology - Review. 2017 Dec;37(6):712-723. doi: 10.1055/s-0037-1608939. Epub 2017 Dec 21. PMID: 29270945

Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

Response was added on 09/24/2018 6:04pm.

1) Attending/Advisor

- ◯ Blinder
- ◯ Cho
- ◯ Guenette
- ◯ Hsu
- ◯ Huang
- ◯ Kim
- ◯ Klufas
- ◯ Lee
- ◯ Mukundan
- ◯ Nunez
- ⊗ Young
- ◯ Zamani

2) Trainee Opportunity

- ☒ First Author Conference Abstract
- ☒ First Author Manuscript
- ☒ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☐ Undergraduate/Postbac
- ☐ Medical Student
- ☒ Radiology Resident
- ☒ Neuroradiology Fellow

4) Research Topic

DWI and PWI of Brain Tumor

5) Brief Project Description Including Trainee Responsibilities

Development of novel methods in DWI and PWI. Trainee work may include assistance with coordinating and performing phantom imaging and volunteer imaging and/or writing manuscripts.

6) Anticipated Trainee Time Commitment

- ◯ Minimal (e.g. educational exhibit, small chart review)
- ◯ Modest (e.g. large chart review, image post-processing)
- ⊗ Long-Term (e.g. prospective study with intermittent imaging review)
- ◯ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ◯ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

_____

8) Project Status

- ◯ New
- ⊗ Ongoing
- ◯ Completed

9) Publication Information (for completed projects)

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Trainee Neuroradiology Research Opportunities

Please complete this form for each research project you would like to share with the trainees. The project list will be shared with fellows, residents, and medical students.

Response was added on 09/24/2018 6:07pm.

1) Attending/Advisor

- ◯ Blinder
- ◯ Cho
- ◯ Guenette
- ◯ Hsu
- ◯ Huang
- ◯ Kim
- ◯ Klufas
- ◯ Lee
- ◯ Mukundan
- ◯ Nunez
- ⊗ Young
- ◯ Zamani

2) Trainee Opportunity

- ☒ First Author Conference Abstract
- ☐ First Author Manuscript
- ☒ Middle Author Manuscript

3) Appropriate Trainee Level for Project

- ☐ Undergraduate/Postbac
- ☒ Medical Student
- ☒ Radiology Resident
- ☒ Neuroradiology Fellow

4) Research Topic

Image Analysis for Improved Safety and Efficiency in Clinical Neurodiagnosis

5) Brief Project Description Including Trainee Responsibilities

Development of machine learning methods for quality improvement and assurance in neuroradiology. Trainee participation may include work with image and text data from EMR to produce ground truth, coding, statistical analysis, and/or writing depending on skillset, time and interest.

6) Anticipated Trainee Time Commitment

- ◯ Minimal (e.g. educational exhibit, small chart review)
- ◯ Modest (e.g. large chart review, image post-processing)
- ⊗ Long-Term (e.g. prospective study with intermittent imaging review)
- ◯ Dedicated Research Time (e.g. extensive image post-processing and analysis)
- ◯ Several Variable Opportunities/Options

7) Special Comments (e.g. required skills, plans to train)

_____

8) Project Status

- ◯ New
- ⊗ Ongoing
- ◯ Completed

9) Publication Information (for completed projects)

_____