

Tumor Imaging Group

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Response Evaluation In Neurofibromatosis Schwannomatosis
INTERNATIONAL COLLABORATION

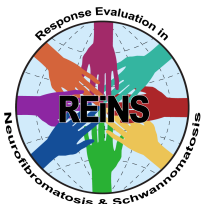
Publication updates

- Consensus recommendation for imaging tumor response: *Neurology* 2013;81 (Suppl 1):S33–S40
- Comparison of MEDx and 3DQI volumetric methods to measure NF1-PN: *Academic Radiology* 10.1016/j.acra.2017.09.004



Summary of projects

- Natural history of NF1-PN
- Prospective volume method comparison study for NF1-PN
- Volume method comparison study for NF2-VS
- Natural history of NF2-VS
- Survey of imaging practices: NF1, NF2, SWN



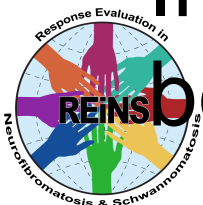
Correlation of PN growth and development of morbidity (Andrea Gross)

- Morbidities are more likely to develop in patients with progressive PN
- Stopping tumor growth could benefit patients by reducing the development of morbidities
- Preventive treatment in patients at risk of tumor progression



1D-2D-3D measurement comparison

- Volumetric tumor response on the phase-1 Selumetinib study in patients with NF1-PN
- Phase-2 registration study is ongoing to confirm response rate and clinical benefit
- Preliminary data submitted to FDA: They requested tumor size trends by 3D and standard measures (1D-RECIST) as exploratory measure
- In clinical practice 3D assessment may not be widely accessible



Spinal tumor assessment

- NF tumors are slow growing
- Need sensitive method to objectively grade subtle changes on imaging
- Subtle imaging changes may result in measurable clinical changes
- We experimented with visual categorization, volume segments, area ratios, convexity measures: no consensus yet
- Review spinal tumor responses on MEK study



MPNST

- Imaging markers of malignant transformation
- Identifying and monitoring of high risk patient population
- Prevention of malignant transformation
- Retrospective review of MPNST cases
- Role of FDG/FLT-PET and DWI/ADC MRI in early diagnosis
- Longitudinal Imaging and blood samples at the same time to evaluate for biomarkers

