Automated evaluation of disease on ^{68}Ga-DOTATATE PET/CT images for long-term lesion tracking on ^{177}Lu-DOTATATE therapy
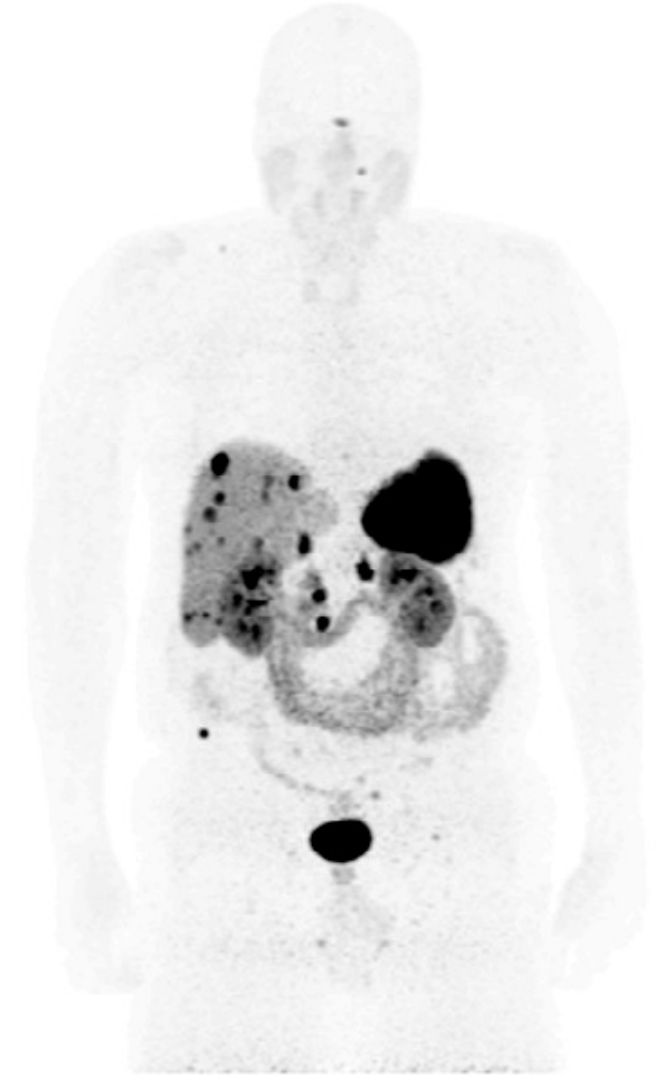
Timothy G Perk, Amy J Weisman, Ojaswita Lokre, Brayden Schott, Victor Santoro-Fernandes, Robert Jeraj, Steve Y Cho, Scott B Perlman
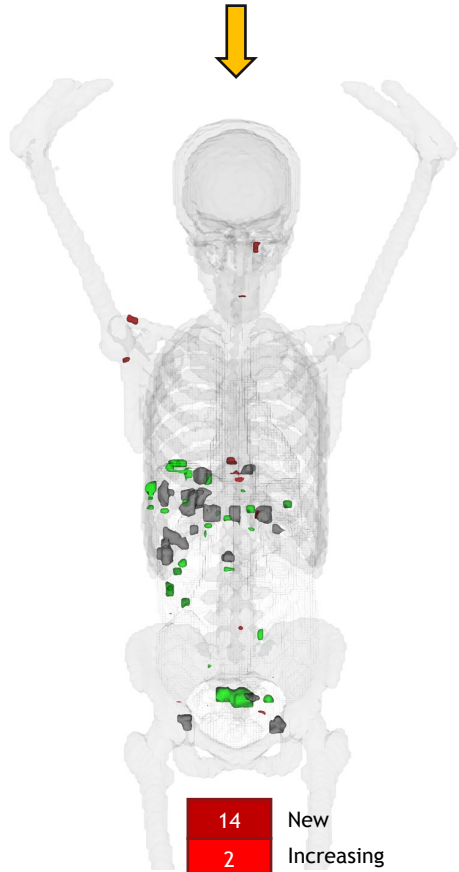
AIQSolutions

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Patient Population

- Retrospective study of 25 patients

- Sequential ^{68}Ga-DOTATATE PET/CT imaging during ^{177}Lu-DOTATATE therapy

- 81 images examined

- 12 patients had 3 or more images (range 2-7)

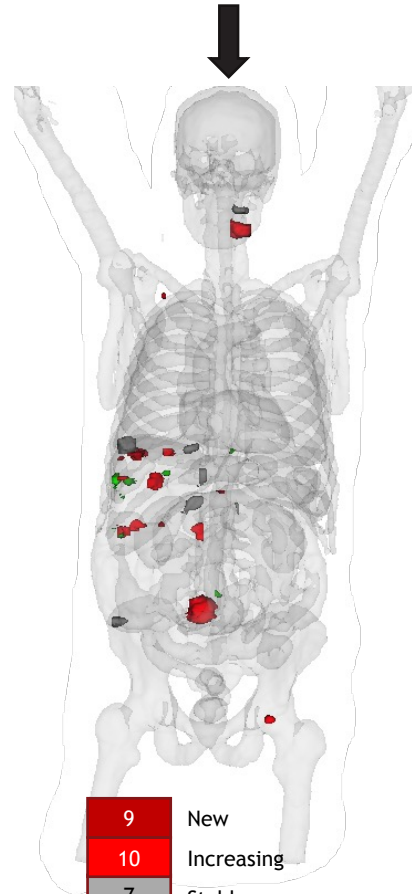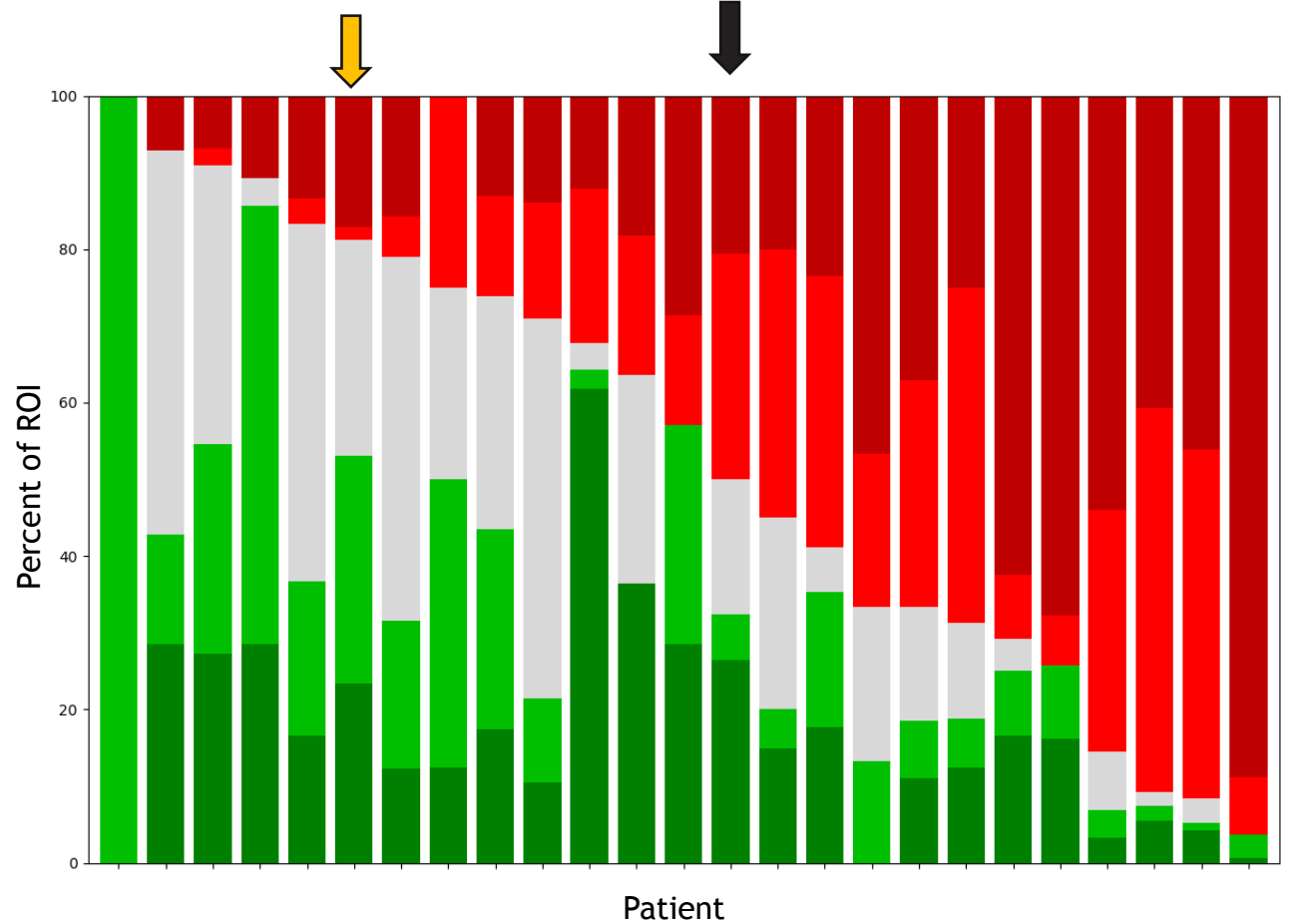- Images analyzed using TRAQinform IQ® technology (AIQ Solutions)

Early Heterogeneity of Response (^{177}Lu-DOTATATE)

14	New
2	Increasing
16	Stable
19	Decreasing
9	Disappeared

9	New
10	Increasing
7	Stable
2	Decreasing
11	Disappeared

Percent of ROI

Patient

- 24/25 patients exhibited heterogeneous response of ROI at the first imaging timepoint
- 11/25 patients have over half of their disease increasing or new

AIQ

Summary

- AIQ Technology can automatically identify and track ROI on ^{68}Ga-DOTATATE PET/CT images over the course of ^{177}Lu-DOTATATE treatment

- All 25 patients showed heterogeneous ROI response on at least one timepoint

- 58% of patients (7/12) showed an escalation in the number of ROI that were decreasing or disappeared over time

- Understanding the response of each ROI can help inform treatment strategies