

ADNI Progress report

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1 Statistics about the Data

The results shown in this document are based on the ADNI-1 cohort. There are several pros and cons of this decision:

1.1 Pros

- All the pre-processed features uploaded on the ADNI website operate on the entire cohort, thus there is homogeneity in terms of the features available for each patient across each modality. MRI images for ADNI-GO/2 have been processed using different versions of the same software, and are also collected using a higher resolution MRI machine. While this is not a dealbreaker per se, it will require significantly more work to process all the images using the same software and generate similar features.
- Most of the recent literature (5 years) relies on data from ADNI1 only to report results. This will give us a chance to compare our results directly with some of these reported results.
- ADNI-1 is the best dataset to track patients longitudinally, as it was started in 2004 and we have about 8 years' worth of data for all MCI and AD patients that the protocol chose to follow (more on this later).

1.2 Cons

- ADNI1 has CSF data available for only about 20% of the patients. This number will become even smaller when we look at the number of patients that have data available for all 3 modalities.

Below is a small image summarizing the study design:

	Normal	EMCI	MCI	LMCI	AD	MRI	fMRI	DTI	FDG	AV45	PIB	Biosamples
ADNI 1	200	—	400	—	200	✓			✓		✓	✓
ADNI GO	↓	200	↓	—	—	✓	✓	✓	✓	✓		✓
ADNI 2	150	150	↓	150	200	✓	✓	✓	✓	✓		✓

Figure 1: ADNI study design