

## Background

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- Rates of esophageal cancer (EC) are rising dramatically
- Despite aggressive therapy, prognosis remains poor
- Clinical predictors of outcome are imprecise
- Molecular prognostic markers might enable risk stratification, individualization of therapy

1



## Study Design

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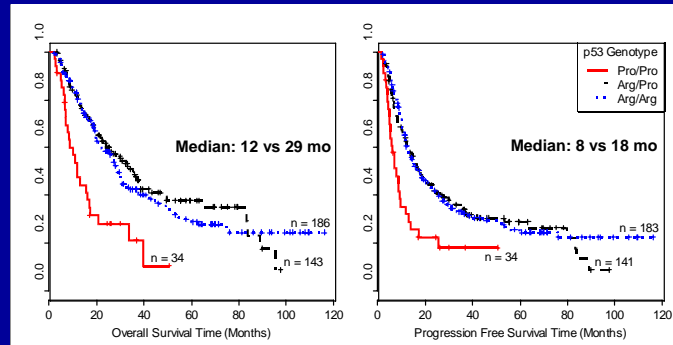
- **Purpose:**
  - Assess association of *p53* pathway SNPs and esophageal cancer outcomes
    - *p53 Arg72Pro*
    - *MDM2 T309G*
  - Explore importance of histologic subtype
- **Population:**
  - Cohort (n=371) recruited in Boston 1999 - 2005
    - 80% adenocarcinoma, all stages
    - Most treated with trimodality therapy
  - Blood samples collected for SNP genotyping
  - Median follow-up 33 months

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## Results: *p53 Arg72Pro*

- Variant *Pro/Pro* associated with shorter overall and progression-free survival (HR 2.0)

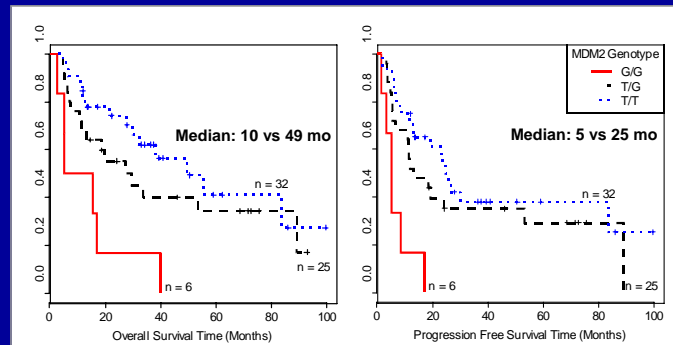


p<0.0001

3

## Results: *MDM2 T309G*

- Variant *G/G* associated with worse outcome only in squamous cell carcinoma subgroup (HR 7.9)



p=0.0007

Interaction p=0.004

4

## Conclusions

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- *p53 Pro/Pro* is strongly associated with shortened survival
- *MDM2 G/G* is strongly associated with shortened survival in squamous cell histology
  - Highlights distinctness of histologic subtype
- Findings may be useful in risk stratification and optimization of therapy

