## What Have I Gotten Myself Into

Gregory Zajac Biostatistics 866 April 18, 2017

## About Me

- Beginnings
  - Tinkering, building, solving puzzles
  - Self-taught Q-Basic in 6<sup>th</sup> grade
- Mizzou 2009-2013
  - Journalism 2009-2010
  - Statistics 2011-2013
- Michigan 2013-????
  - Programming → Stat Gen

File Edit View Search Run Debug

Welcome to MS-DOS OBasic

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Press Enter to see the Survival Guide

< Press ESC to clear this dialog box >



The student voice of MU since 1955

#### UM system spokeswoman: Budget cuts 'all speculation'

### Faculty see results of UM system survey

### Police chief meets with citizens group



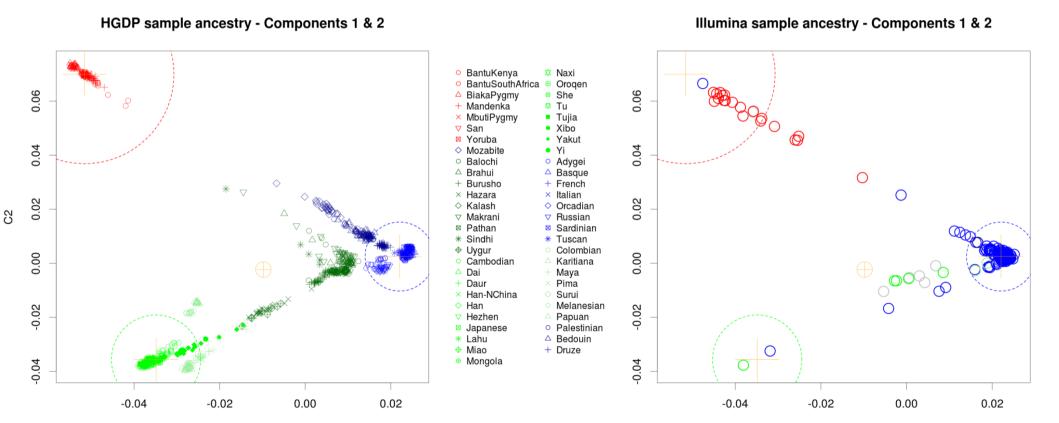
MSA, GPC aim to foster family-

friendly environment at MU





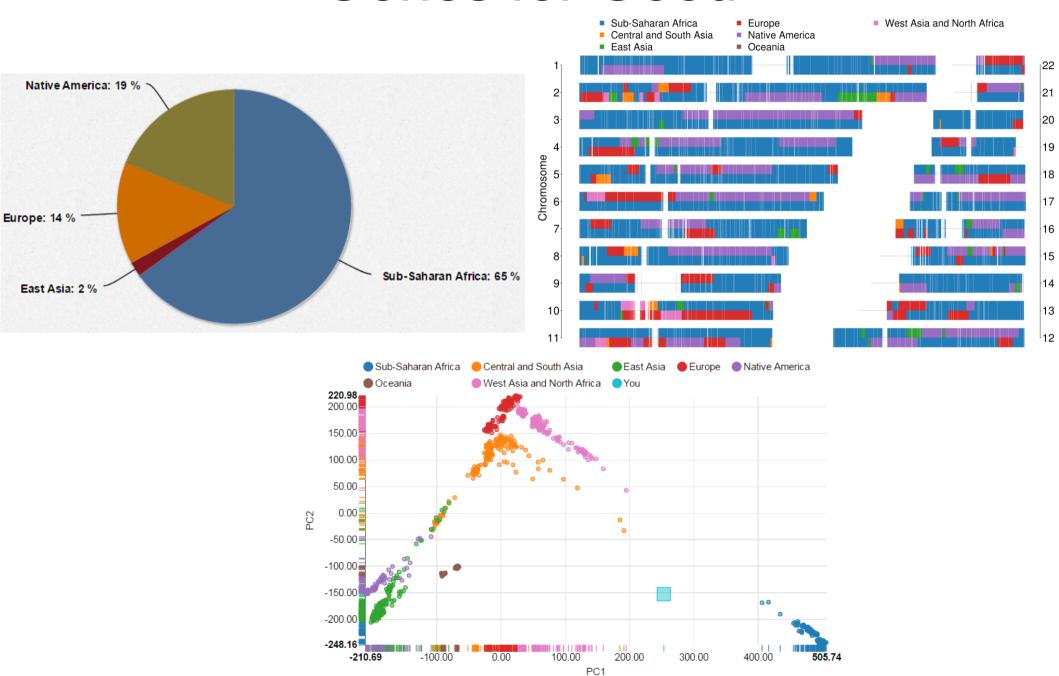
# Michigan Genomics Initiative



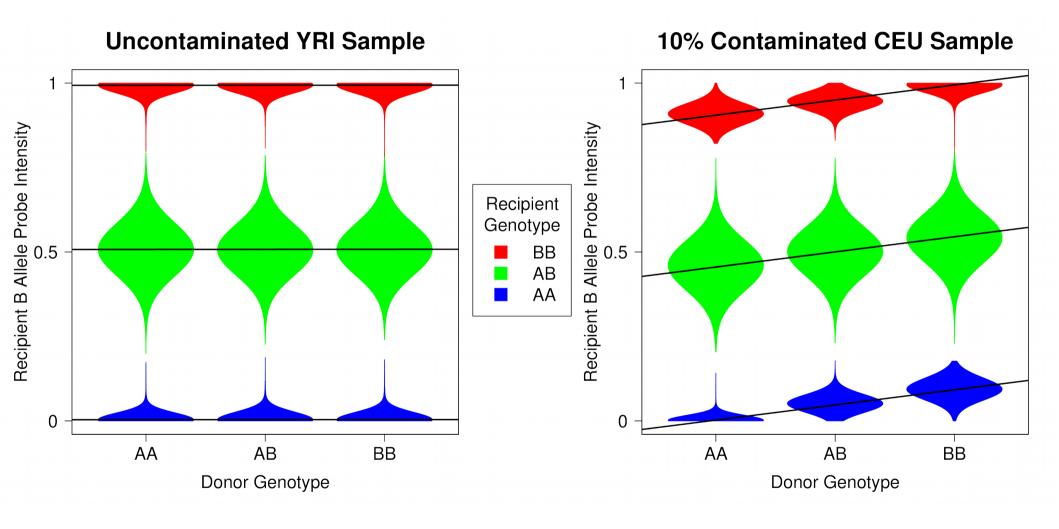
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## Genes for Good



## **VICES**



# Imputation for Haplotype Association

NPL Scores from MaCH

$$NPL = \sum \frac{\text{# of times copied from cases}}{\text{rounds} \times \text{states}}$$

$$logit(P(i \text{ is case})) = \beta_0 + \beta_1 NPL_i + \beta_2 \overline{NPL}$$

$$logit(P(i \text{ is case})) = \beta_0 + \beta_1 G_i + \beta_2 NPL_i + \beta_3 \overline{NPL}$$

## B866 Highlights

Critically read papers

Control for local similarity to infer association

Minimal set of markers to explain heritability?

## The Future

- Research Interests
  - Statistical methods
  - Inferring population history
  - Genomic medicine

Academy or Industry?

