

3-14-14

# T day

## Continued Mutation notes

### Minimizing risks

- sunscreen
- lead vest
- cigarettes 108 different agents causing cancer, 1000 mutations a minute
  1. Not harmful (non coding)
  2. Occur in individual somatic cell
    - A. Dies or divides.

### Mutation in Gametes

1. Potential to pass that mutation on and have it in every cell of offspring,
  - 2 DNA's

- Mitochondrial
- mDNA or mtDNA
- 100 of copies / cell
- passed from mother
- circular
- 15,000 base pairs
- Runs your power plants

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- Determine mother
  - trace lineages
  - species ID

- Nuclear
- nDNA
- 1 copy per cell
- 1/2 from each parent
- long threads
- 3,000,000,000 base pairs
- Builds you runs you

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- Determine father
  - Determine individual
  - evolutionary relatives
  - Drug effectiveness
  - Genetic disease screening