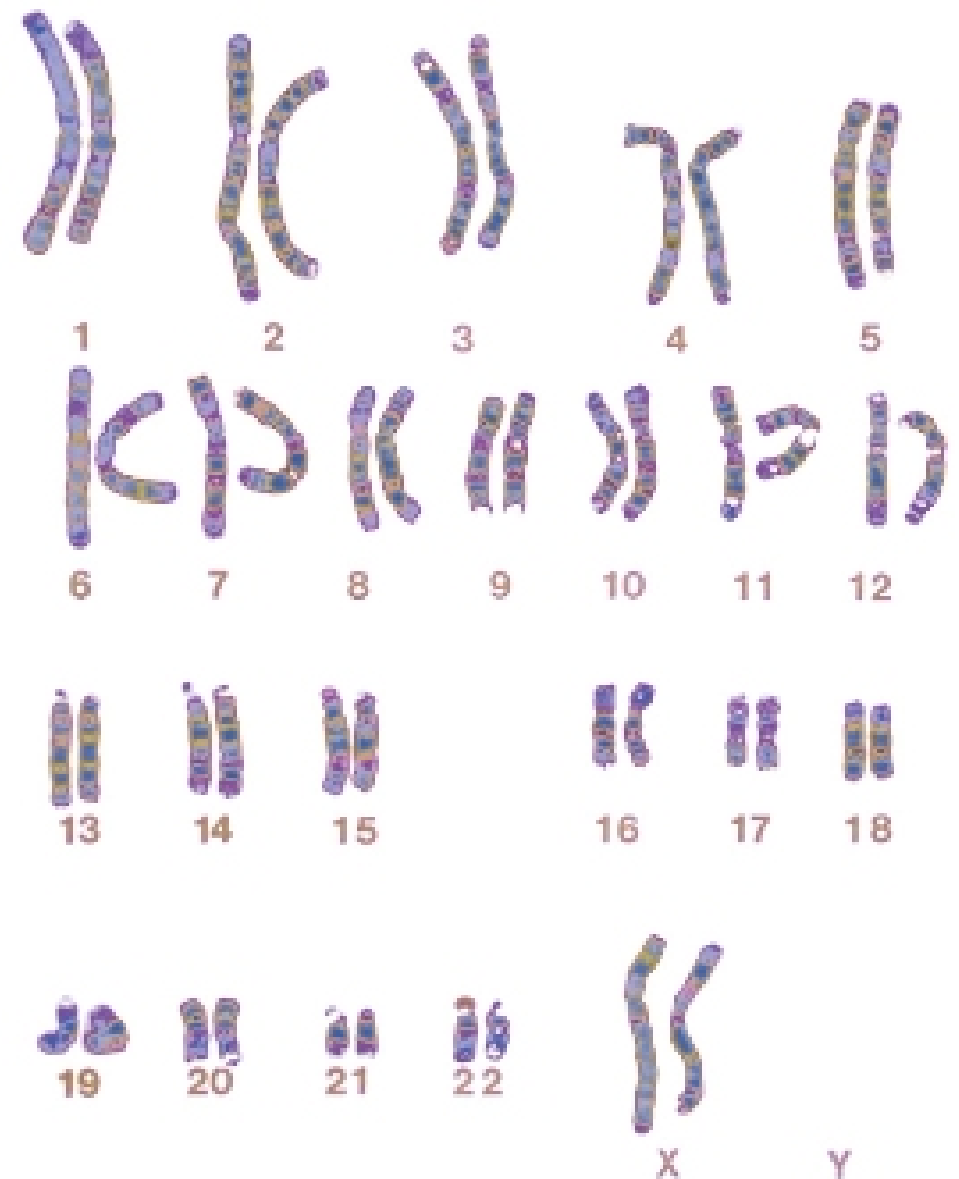


Genetic Basics

Building Blocks of Life

- 46 Chromosomes in 23 pairs—one of each pair inherited from mom and the other inherited from father
- Chromosomes are made up of DNA molecules
- DNA organized into segments called genes



Genetic Basics

Expression of Traits

- Genotype-The totality of an individual's genes—unique genetic inheritance
- Phenotype-Actual Characteristics
 - This is what is seen or observed and can include a wide range of things
 - Influenced by environment: Does the individual's environment allow the genetic ability to be revealed?



Studies of identical twins illustrate how different factors like smoking, sun exposure, depression and weight gain can influence aging. Age 52. The twin on the left smokes and has a history of more sun exposure, resulting in an older appearance than her twin of the same age. Photo: Dr. Bahman Guyuron