

FUNCTIONAL MEDICINE MATRIX

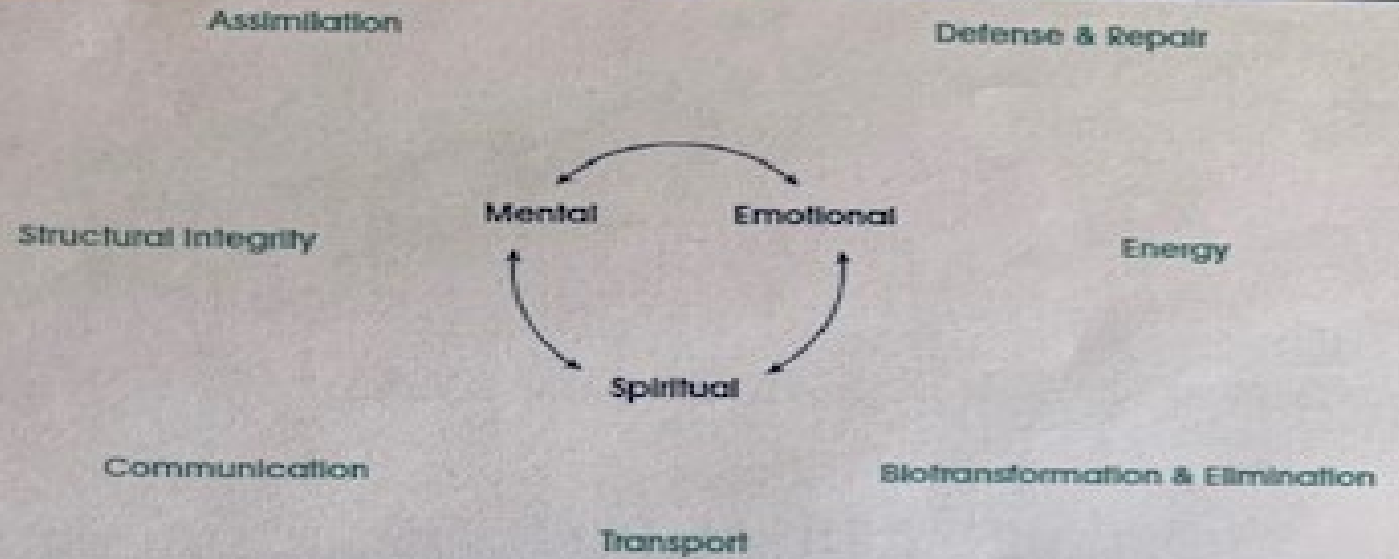
Retelling the Patient's Story

Antecedents

Triggering Events

Mediators/Perpetuators

Physiology and Function: Organizing the Patient's Clinical Imbalances



Modifiable Personal Lifestyle Factors

Sleep & Relaxation

Exercise & Movement

Nutrition

Stress

Relationships

Diseases Don't Exist!

Loss of adaptive homeodynamic balance

Disease Many Causes

Social Isolation

**Omega 3
Fatty acid**

Low Thyroid

Antibiotic use

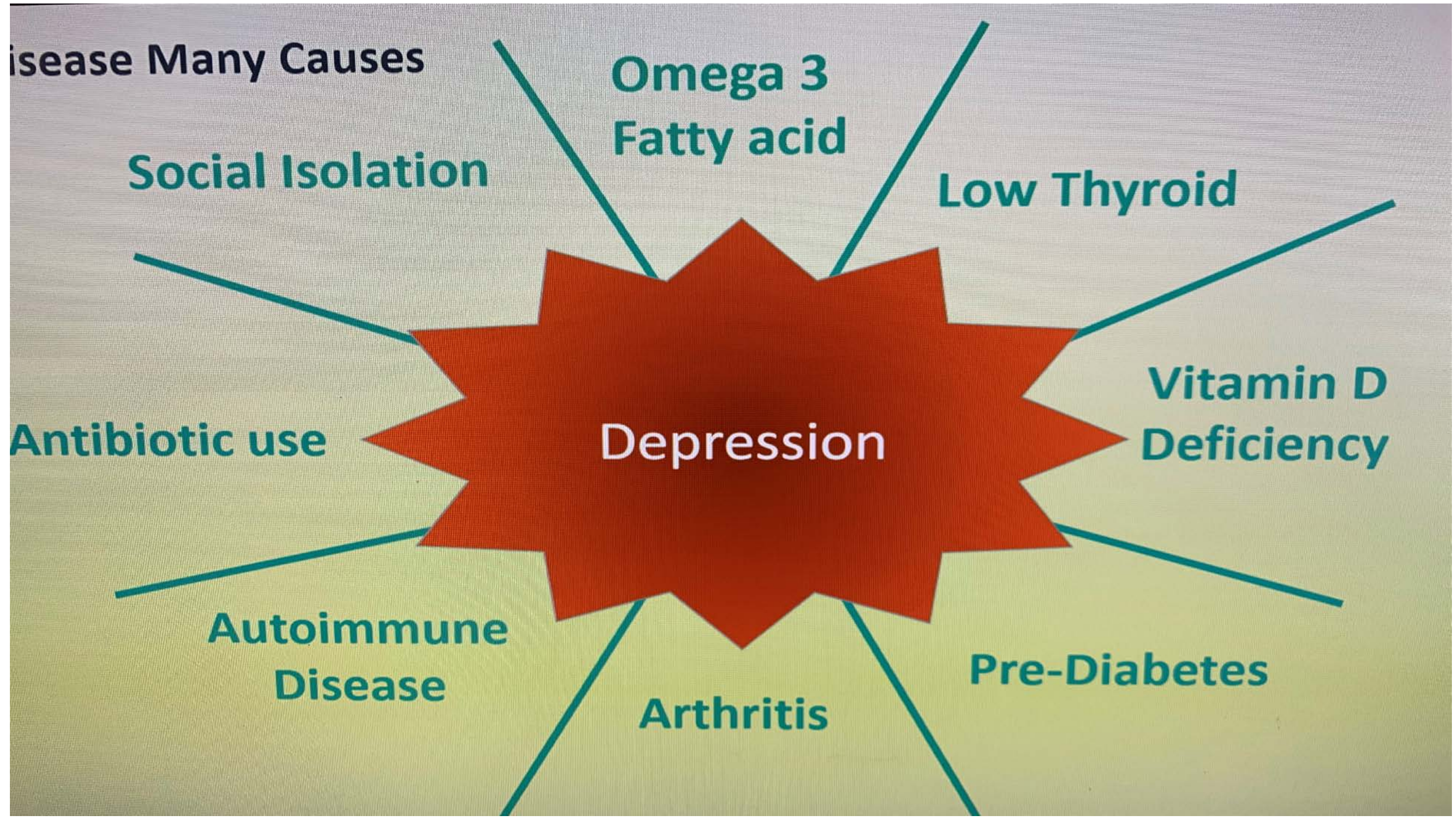
Depression

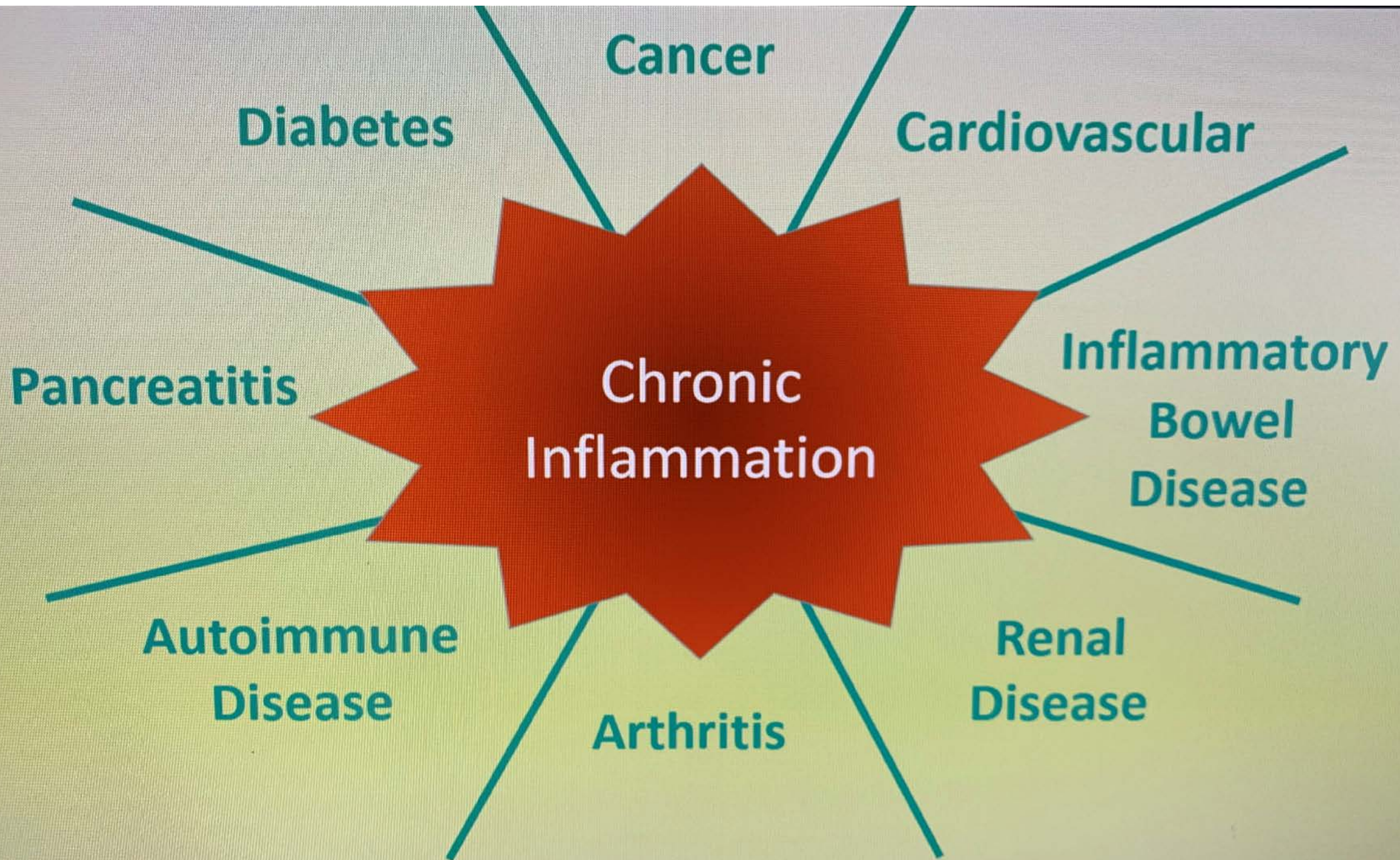
**Vitamin D
Deficiency**

**Autoimmune
Disease**

Arthritis

Pre-Diabetes





Cancer

Cardiovascular

**Inflammatory
Bowel
Disease**

**Renal
Disease**

Arthritis

**Autoimmune
Disease**

Pancreatitis

Diabetes

**Chronic
Inflammation**

The Undiscovered Organ...

THE HUMAN

Bacteria, fungi, and viruses outnumber human cells in the body by a factor of 10 to one. The microbes synthesize key nutrients, fend off pathogens and impact everything from weight gain to perhaps even brain development. The Human Microbiome Project is doing a census of the microbes and sequencing the genomes of many. The total body count is not in but it's believed over 1,000 different species live in and on the body.

25 SPECIES

in the **stomach** include:

- *Helicobacter pylori*
- *Streptococcus thermophilus*

500-1,000 SPECIES

in the **intestines** include:

- *Lactobacillus casei*
- *Lactobacillus reuteri*
- *Lactobacillus gasseri*
- *Escherichia coli*
- *Bacteroides fragilis*
- *Bacteroides thetaiotaomicron*
- *Lactobacillus rhamnosus*
- *Clostridium difficile*

MICROBIOME

600+ SPECIES

in the **mouth, pharynx and respiratory system** include:

- *Streptococcus viridans*
- *Neisseria sicca*
- *Candida albicans*
- *Streptococcus salivarius*

1,000 SPECIES

in the **skin** include:

- *Pityrosporum ovale*
- *Staphylococcus epidermidis*
- *Corynebacterium jeikeium*
- *Trichosporon*
- *Staphylococcus haemolyticus*

60 SPECIES

in the **urogenital tract** include:

- *Ureaplasma parvum*
- *Corynebacterium aurimucosum*



Biochemical Individuality

- Most drugs work really well for about 30-40% of the population (+/- 0.5 SD)
- They work increasingly less well as you fall off of the tails of the normal distribution.
- This is well recognized by pharma scientists.

