



Epigenetics and Cellular Memory

©Arlene R. Taylor PhD
www.arlenetaylor.org
www.LLM.life

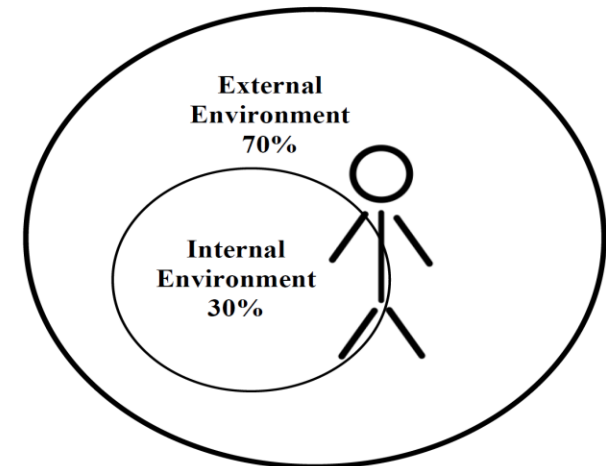


5-19

Nature + Nurture = You

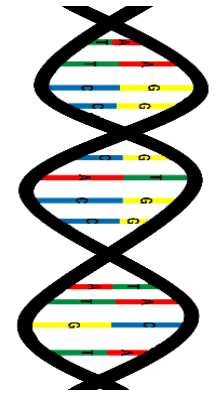
Nature involves **genetics**, which account for about **30** percent of the impact to your health and lifespan

Genetics is your biological heredity, the biological “stuff” you inherit from your mother and father—including your chromosomes and 25,000 genes that contain the “blueprints” for the building blocks of life and the person you were meant to be



Chromosomes are twisted strands of DNA divided into smaller bits called genes

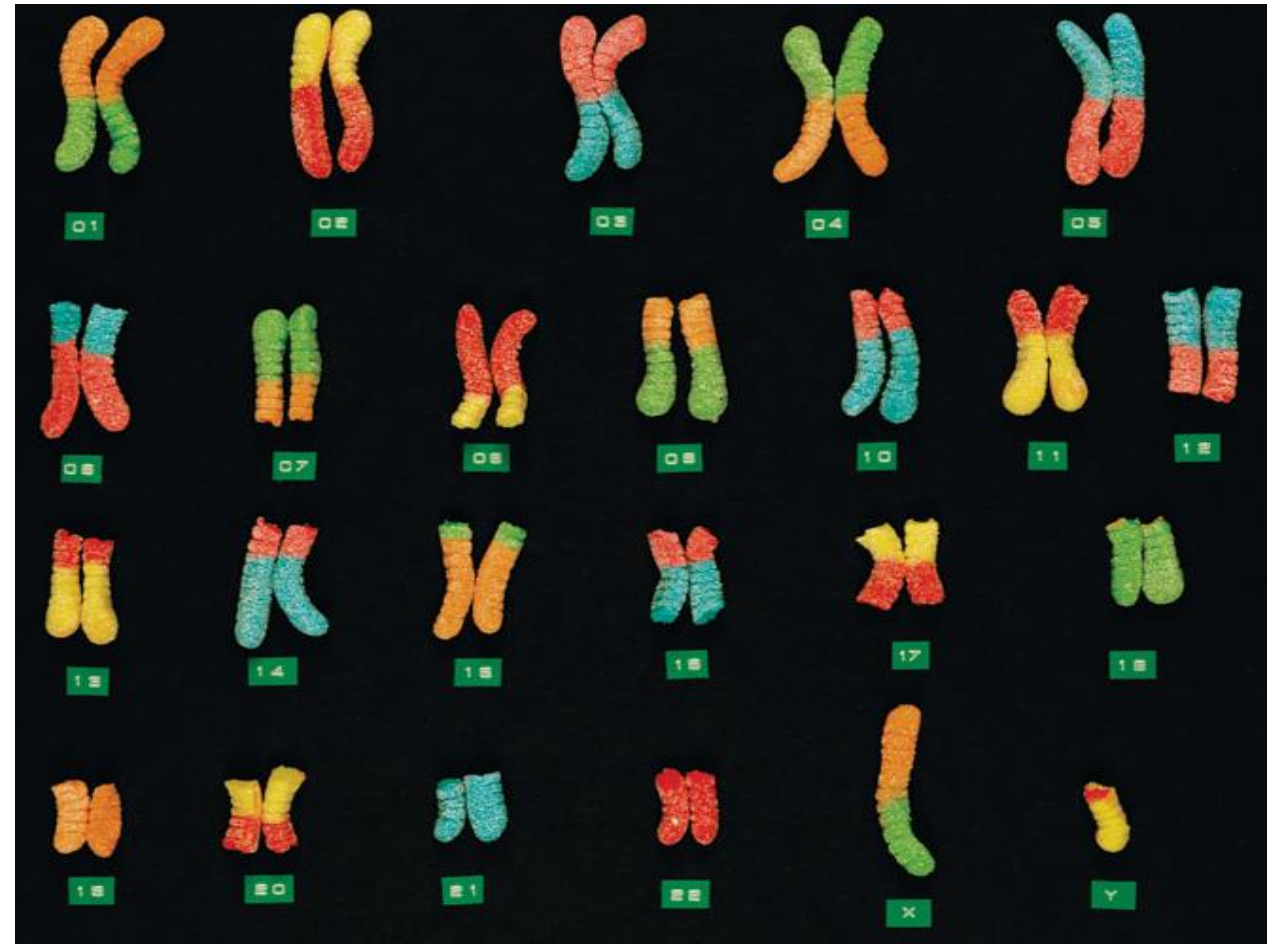
Picture chromosomes as a type of coiled ladder with the genes located on the ladder rungs—1962 Nobel Prize was awarded for the discovery of this double helix



Genes determine your inherited traits such as male or female, height, skin-eye-hair color, your IQ range, specific areas of giftedness (music, math, literature, science, the arts, mechanics, inventiveness, brain functions ...)

46 chromosomes: 22 pairs
 (one from each parents)
 and the 23rd pair is the X
 and the Y

	♂	
XX-M*		XY-F*
X045	XX XY	
♀ XX46	♂	XY46
XXX47	♀	XXY47XYY
XXXX48	♂	XXXY48XXYY
XXXXX49	♀	XXXYY49 XYYY
		XXXXY XYYYY



More than 95 percent of embryos form correctly, based on the genetic blueprints; the rest may exhibit a birth defect

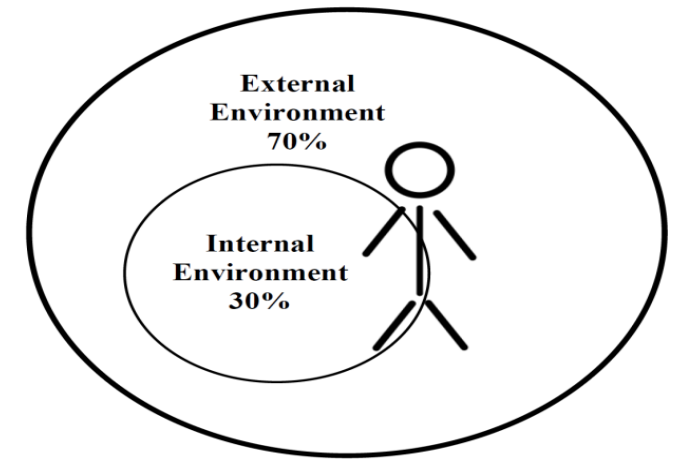
By the end of the first 12 weeks, the initial construction of all the body organs is in place



The brain, however, continues to develop throughout pregnancy with neurons being created at the rate of 250,000 per minute—more than half of all fetal metabolic energy is devoted to growing the brain, which will continue to develop and mature until late 20's or early 30's

Nurture involves **epigenetics**: “epi” means “above.” *Above genetics*. It accounts for about 70 percent of your level of wellness and lifespan. It is everything that is not genetics:

The sum total of your internal and external environments, beginning with conception and continuing with a calm or stressful gestation, a pleasant or traumatic birth experience, the memory of which likely is lodged in your subconscious, and all the memories created by ALL your lifestyle choices and by events that you did not create or even want ...



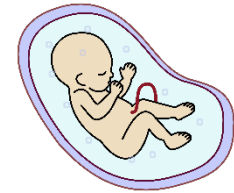
Epigenetics has a definite impact on the process of gestation... in whatever way the mother experiences her internal and external environments—happy, angry, fearful, sad, or stressed—the fetus will pick that up; if the stress response is triggered frequently and adrenalin and cortisol flood her body, the fetus can become hyper-sensitive to perceived stressful events, tending to *overreact* in stressful situations for years after it is born



It learns about safety or danger in the external environment from this epigenetic information.

Researchers believe the fetus knows if it was wanted or not, if it is the gender preferred by the parents, and if maternal and paternal families are happy about the situation or not

A child tends to like the foods and beverages that the mother ate and drank during pregnancy



It's *not* just maternal stress that can impact the developing fetus. Studies with mice led by Tracy Bale, PhD, at the University of Maryland, School of Medicine, have shown that negative and/or chronic stressors can alter the father's sperm, which then can alter fetal brain development

Epigenetics may also help to explain the “rage” or “depression” that some abandoned, foster, surrogate, And adopted children exhibit. Their new environments are very different from the gestational environment it became accustomed to. Healthy or unhealthy, it was familiar: smells, tastes, sounds, touch, music, and sometimes language, race, culture, or even location on the planet. This disconnection can be stressful, unsettling, and terrifying for the child. It can help if the adoptive parents have a piece of clothing from the biological mother containing her “smell” to help the child transition from one environment to another



Epigenetics may actually account for more than the estimated 70 percent since it can impact genetics

This relatively new body of knowledge about biology helps to explain how some illnesses, diseases, addictions, and other behaviors tend to “run” in families, occurring more frequently than in other family systems

It is also clarifying what you can and cannot change in this complex nature-nurture equation



Who you are as a unique individual involves complex *interactions* among your brain and spinal cord, your genome (genetic biological inheritance of chromosomes and genes), your epigenome (everything that is not genetics), your microbiome and virome (bacteria and viruses—good and bad—that live inside you),

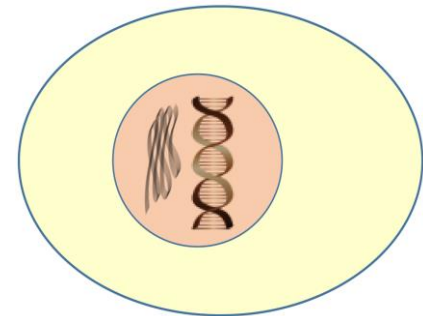
Which means, as William Faulkner put it, the past is never dead. It's not even past! You carry it within you.

Epigenetics includes Cellular Memory . . .

Cellular memory is a label for imprinted memories that are passed from biological ancestors to their offspring

It is fascinating phenomenon involving subconscious memories of behaviors exhibited by biological ancestors from 3-4 generations back—and that can be passed on to the next 3-4 generations of your biological line

These memories are thought to be carried on protein strands in cells that have a nucleus—and can provide an impetus or an urge toward specific behaviors

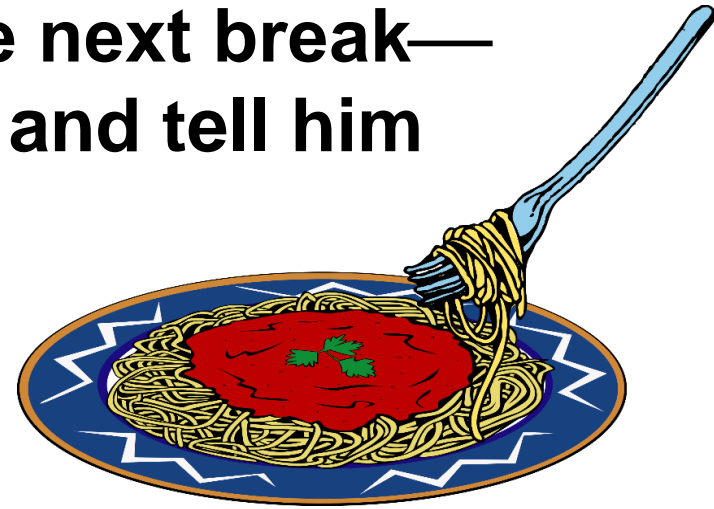


You do not choose what was donated to you by your biological ancestors but you DO choose whether or not you will act upon the impulses

Cellular memory helps to explain how specific behavioral and disease patterns show up frequently in generational lines, albeit inconsistently; behavioral differences observed among siblings with the same parents and in foster, surrogate, and adopted children regardless of present environment; and in behavioral changes related to organ transplantation

I was presenting the topic of Cellular Memory and a woman came up to me at the break and said,

**“I need to tell you something at the next break—
right now I have to call my brother and tell him
he’s not crazy”**



Cellular memory may impact relationships via likes and dislikes whether or not you can verbalize reasons



You build and retain cellular memory for every person with whom you have sexual activity—which can impact potential monogamy and cause problems in new relationships when traumatic cellular memory exists from prior relationships

Cellular memory is more readily activated in situations that resemble the one in which the original cellular memory was laid down (visit ancestral countries, home for holidays, study for a test under an influence of a drug) and is likely involved with déjà vu or past-life theory

You are an omnibus in which your ancestors ride

—Oliver Wendell Holmes

Once two systems come into energetic contact, they are forever connected by the cellular memories of their connection

Experiences with parents and others close to you remain within you

—Paul Pearsall PhD

Make sure those experiences are pleasant, loving, and affirming...

Fourteen epigenetic strategies have been identified over which you can have partial—if not complete—control:

Mindset

Self-talk

Emotional Intelligence

Physical Exercise

Brain Stimulation

Optimum Sleep

Essential Hydration

Safety

Sunlight

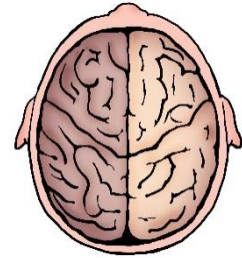
Nutrition

Laughter

Support System

Stress Management

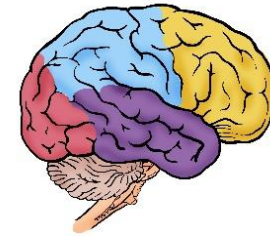
Life Satisfaction



How can you impact epigenetics positively?

Learn what you can about your genetic inheritance, as strategies may be available to reduce your risk for some illnesses and diseases

Create a brain-based longevity lifestyle and implement the 14 researched components



Identify your mindset and personal perceptions and course correct as needed

Prevent what has been shown to be preventable

Raise your Emotional Intelligence or EQ to help avoid conflict, reduce stress, and make good choices

Choose wisely, making decisions based on informed evaluations

Use willpower to help you create and sustain new behaviors successfully

Give thanks and enjoy life, taking the best care possible of the brain and body leased to you for use on Planet Earth



To recap: you arrived on Planet Earth with a genetic biological inheritance—your *genome*—responsible for about 30 percent of your level of wellness and your potential lifespan



Your *epigenome* is everything that is not genetics and is worth 70 percent of how well and how long you live

Epigenetics (lifestyle) has a much greater impact on health and longevity than was thought possible; the choices you make via epigenetics impact you negatively or positively

I pray that you may prosper in all things and be in good health, even as your soul prospers

—Apostle Paul, 3 John 1:2

Do you *really* want to stay healthier and younger for longer?

You can't change the past, but you can create a healthier future!

You are the only person who can do this for you

