#### Melanin and The Ear

**Story's Findings Through Research** 

# The Study of Sound

- "The study of sound is a study of vibration and music.
  Sound is a form of light, particular range of vibrations or movements of atoms in the spectrum of light, Life.
- Melanin as a photoreceptor, receiver of light, is a door through which light enters the human form through the various sensory organ information portals to self organize, to feed the self or soul of humans while in the physical body."
- <u>Book: MELANIN: A Key To Freedom by Richard King, M.D. U.B. & U.S.</u> <u>Communications Systems pg.29</u>

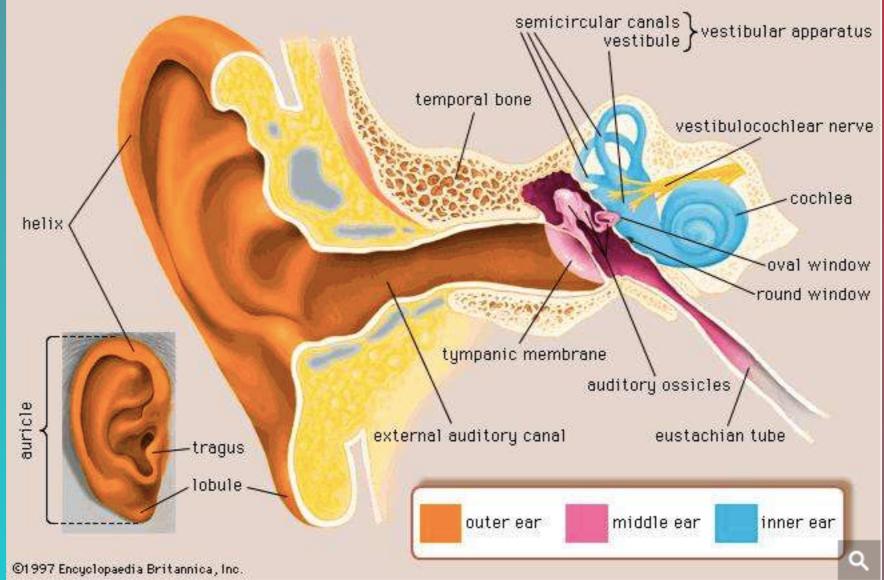
## Melanin Formation in the Inner Ear

According to the scientific journal Biochimica et Biophysica Acta (BBA) - General Subjects, their results from an experiment proved melanogenesis (*the process of melanin production*) in the cochlea, and likely in other extracutaneous (Outside of the skin or cutis.) locations such as the brain, is catalyzed (cause or accelerate (a reaction) by acting as a catalyst. Catalyst is a substance that increases the rate of a chemical reaction without itself undergoing any permanent chemical change.) by enzymatic systems different from but related to tyrosinase. (Tyrosinase is an enzyme that catalyzes the production of melanin from tyrosine by oxidation)

ABSTRACT: Melanin formation in the inner ear is catalyzed by a new tyrosine hydroxylase kinetically and structurally different from tyrosinase

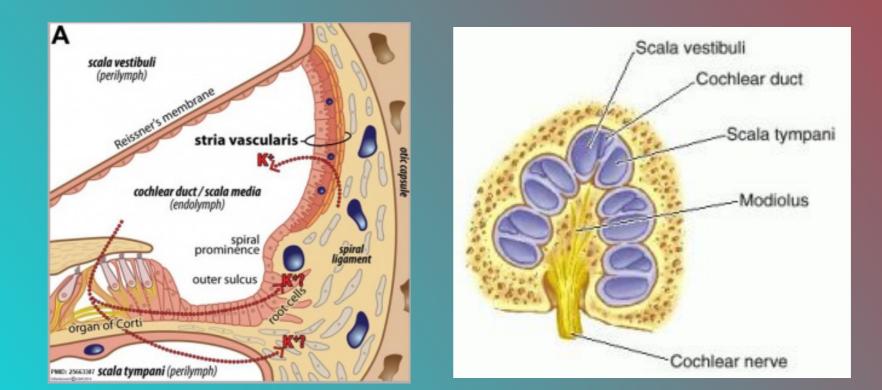
<u>E Benedito a C Jiménez-Cervantes a D Pérez b J.D Cubillana b F Solano a J Jiménez-Cervantes b A.MMeyer zum Gottesberge c</u> J.ALozanoaJ. C García-Borróna Biochimica et Biophysica Acta (BBA) - General Subjects Volume 1336, Issue 1, 19 July 1997, Pages 59-72





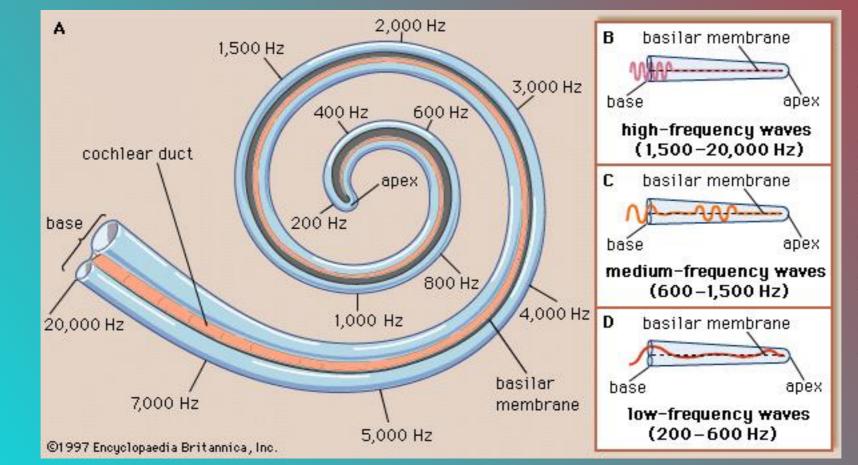
## **Melanin in the Inner Ear**

- "Melanin is found throughout the ear in humans and the presence of melanin in the inner is of great importance."
- Book: MELANIN: A Key To Freedom by Richard King, M.D. U.B. & U.S. Communications Systems pg:29
- Melanocytes have been identified within the inner ear within the modiolus, (a central column of bone around which the cochlea twists.) Vestibular and stria vascularis (The upper portion of the spiral ligament which forms the outer wall of the cochlear duct contains numerous capillary loops and small blood vessels.)
- Book: MELANIN: A Key To Freedom by Richard King, M.D. U.B. & U.S. Communications Systems pg:29



## Melanated People Hear Better

- "Hearing is better preserved in colored than in white populations. Buch and Raiford tested and compared hearing function of colored people and white people in the frequency range above 2kHz and found that "the hearing threshold (the magnitude or intensity that must be exceeded for a certain reaction, phenomenon, result, or condition to occur or be manifested.) Were Superior in colored compared with white males."
- "Post (1964) evaluated the results of hearing examinations of American conscripts fro World War II and found that colored men above middle age had better hearing thresholds at high frequencies than white men in the same age groups, especially in males over 30 years of age."



Book: MELANIN: A Key To Freedom by Richard King, M.D. U.B. & U.S. Communications Systems pg:29

The following schematic of the cochlea from Encyclopædia Britannica, Inc. nicely shows the cochlear tonotopy (i.e., high frequencies in the base, low frequencies in the apex);

## VOCABULARY

- Extracutaneous: Outside of the skin or cutis.
- **Cutis:** "the true skin or dermis." (the thick layer of living tissue below the epidermis that forms the true skin, containing blood capillaries, nerve endings, sweat glands, hair follicles, and other structures.)
- **Catalyzed:** cause or accelerate (a reaction) by acting as a catalyst.
- **Catalyst:** a substance that increases the rate of a chemical reaction without itself undergoing any permanent chemical change.
- Enzymatic: of, relating to, or produced by an enzyme.
- Modiolus: the conical central axis of the cochlea of the ear.
- **Threshold:** the magnitude or intensity that must be exceeded for a certain reaction, phenomenon, result, or condition to occur or be manifested.

### Sources

 <u>Book: MELANIN: A Key To Freedom by Richard King, M.D. U.B. & U.S.</u> <u>Communications Systems</u>

Abstract: Melanin formation in the inner ear is catalyzed by a new tyrosine hydroxylase kinetically and structurally different from tyrosinase E Benedito a C Jiménez-Cervantes a D Pérez b J.D Cubillana b F Solano a J Jiménez-Cervantes b A MMeyer zum Gottesberge c J.ALozanoaJ. C García-Borróna