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# COLOMBIAN DOCTORS AND THEIR CONTRIBUTIONS

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### COLOMBIA





Colombia is a **multicultural** and **biodiverse** country that has an abundance of natural resources, but it is a developing country that unfortunately does not have enough **economic resources** to promote development in the fields of **science and medicine**, but it is a country that has **talented** and **intelligent** people, who are more than **suitable** to contribute to **research and innovations**.



### SYNTHETIC VACCINES

- Pararroyo founded the Institute of Immunology of the San Juan de Dios Hospital, from where he carried out research on Lupus, leukemia, tuberculosis and leprosy.
- Research on malaria began in 1983 and had its first great result in 1984. Which began to be tested in 1986, in a colony of Amazon monkeys and later in human groups.
- Synthetic vaccines are made from polypeptides that copy the primary sequence of amino acids of the antigenic determinants of the microorganism
- The immune response provided by SPF is between 40 and 60% in adults, and up to 77% in children over one year of age.

#### **MANUEL ELKIN PATARROYO**



**BIRTHDATE:** November 3, 1946

PLACE OF BIRTH: Ataco, Tolima, Colombia

**PROFESSION:** Physician-scientist

**EDUCATION:** National University of

Colombia













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#### **NUBIA MUÑOZ**



**BIRTHDATE**: 1940

PLACE OF BIRTH: Santiago de Cali, Colombia

PROFESSION: Cancer researcher and

epidemiologist

**EDUCATION:** Universidad del Valle

# HUMAN PAPILLOMA VIRUS (HPV)

- The discoveries of Dr. Muñoz opened enormous perspectives for prevention.
- She developed the HPV test and the first HPV vaccine, marketed in 2006.
- There are more than 100 types of this virus.
- More than half a million women are diagnosed each year:

85% occur in low-income countries

70% of cases are preventable with vaccination

3.5% of women in the world have been vaccinated

According to the British NGO Cancer Research, 8 out of 10 people will contract it throughout their lives.



## LLINÁS LAW

- Rodolfo Llinás is recognized worldwide for his contributions to the field of Neuroscience.
- In the late 1980s, he found that a neuron from one part of the brain cannot be replaced by another coming from another part of the brain, even if the way in which they are connected is identical.
- Rather, each neuron is irreplaceable.

#### **KNOWN FOR:**

Physiology of the cerebellum, the thalamus, Thalamocortical dysrhythmia as well as for his pioneering work on the inferior olivary nucleus, on the squid giant synapse and on human magnetoencephalography (MEG).

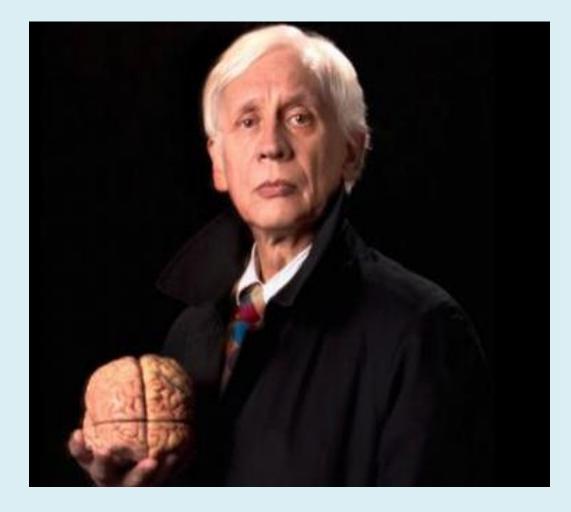






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#### **RODOLFO LLINÁS RIASCOS**



**BIRTHDATE:** 16 of December, 1934

PLACE OF BIRTH: Bogota, Colombia

**PROFESSION:** Physician and

neurophysiologist

**EDUCATION:** Pontificia Universidad

Javeriana

https://www.elheraldo.co/tendencias/la-vida-aun-con-sus-limites-es-una-experiencia-preciosa-278215



#### **JORGE REYNOLDS**



BIRTHDATE: June 22, 1936

PLACE OF BIRTH: Bogota, Colombia

PROFESSION: Electrical engineer and bio-

enginee**r** 

**EDUCATION:** Trinity College

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https://thecitypaperbogota.com/features/c olombias-pioneer-of-the-electric-heart/

### EXTERNAL PACEMAKER

- From the 1950s to the 1960s there were great advances regarding the way in which the external pacemaker could work in different countries.
- At the Abood Shaio Foundation Clinic, electrical engineer Jorge Reynolds and Doctor Alberto Vejarano built the first external artificial pacemaker connected to a car battery.
- The first patient was an elderly Ecuatorian priest who suffered from atrioventricular block.
- The pacemaker designed at the Shaio Foundation facilities left the wheelbarrow and the car battery when the transistor appeared, revolutionizing the design and operation of pacemakers.

### ИСПОЛЬЗОВАННАЯ ЛИТЕРАТУРА

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### THANKS FOR YOUR ATTENTION!