

I, your pineal gland aka epiphysis

Dear Healthcare friends

I am about to surprise you.

I was designed to regulate the Sleep-Wake system

Some time ago, in my 117th letter, I told you about a phenomenal discovery in the "[Sleep-Wake](#)" domain

I received countless emails, which I could not respond to personally, but which I analysed in detail. It is clear that the general public has understood a lot and is in need of further information.

I wrote this letter following the presentation ⁽¹⁾ to the national Pharmaceutical Academy on 2 December 2015, before an audience of astounded colleagues, of research by my colleague Pr Jean Bernard Fourtillan: He unveiled his discoveries on the sleep-wake regulation system and the sleep hormone, Valentonin.

We have worked relentlessly since then on a detailed presentation of this discovery and its clinical and therapeutic consequences, in a series of 6 additional letters, accompanied by videos.

Jean Bernard Fourtillan is an honorary professor of medicinal chemistry at the Poitiers Faculty of Medicine and Pharmacy, and is therefore vastly experienced in the therapeutic domain.

In this first letter, I will let the Epiphysis, aka pineal gland, tell you about the discovery of the sleep hormone. Let's listen.

Whatever happens, do not confuse me with the hypophysis. Although we do not have the same name, the pronunciation is so close that I prefer to be known as the "pineal gland". I look like a pine nut, hence my name.

The hypophysis is more well-known than I am. It used its renown to send you two very comprehensive letters before I did. You will find them in letter [126 – I, Your Hypophysis](#) – and letter [128 – I, Your Hypophysis When I am ill](#)

As you will see, I am even more important than the hypophysis. Philosopher and physicist René Descartes (1596-1650) suspected this may be the case, as he believed I was the centre or location of the Soul ⁽²⁾ itself. You're giving me too much credit Sir, the soul is elsewhere...

So small, yet my name has held a fascination for centuries

In the 2nd century AD, the great Claudius Galen (131-201) successor and continuator of Hippocrates, named us *koukouvária* or *conarium* or *kornarion* in Greek (i.e. resembling a cone), which means pine kernel. He performed anatomical dissections, notably of the brain, and noticed this tiny appendage on dead bodies, which resembles a pine kernel.

He noticed that all parts of the brain were dependent and that it was impossible to isolate one from another. However he wrote that I, the pineal gland, "was not part of the brain". Galen's name is linked to the vein of Galen which retrieves almost all the venous blood from the brain.

The 1664 edition of Descartes' Treatise on Man features the functional diagram of the pineal gland, as he saw it.

Philosopher Eve Suzanne wrote about the Cartesian approach:

"Yet, the soul is jointly bound to all parts of the body". To report on this phenomenon, Descartes posits the existence of a small gland he believes is located in the brain, called the pineal gland. This gland acts as a junction between the soul and the body. It allows the soul to receive information on the outside world via the body, which acts as a mediator and, in return, to act on the body according to the data collected. More specifically, the soul and the body communicate via animal spirits: the movements of the pineal gland can influence the action of these spirits (in which case the soul acts on the body) and, in return, these animal spirits can influence the gland's movements (in which case the body acts on the soul)".

The diagram established by Descartes shows that he understood the key role of vision and therefore probably what we now refer to as sleep-wake regulation.

Descartes believed the pineal gland was the only unique organ in our body. In actual fact, microscopic studies showed that it is a combined organ, as its two constituent hemispheres are merged together.

Due to my position as a pineal gland, linked to visual pathways, I was nicknamed the 3rd eye (atrophied)...

This is true in animals. In certain reptiles and birds, I am located directly under the head's surface and I can capture external light. Therefore I help the animal adapt to the sleep/wake rhythm.

In Yoga's vedic mythology, I am associated with the Ajna chakra called 3rd eye of Horus, or the Sahasrara or crown chakra, at the top of the head.

But let's stick with reality.

You must know that when you look at me under a microscope, you can see I have nerve cells of the same origin as retina cells. This is why, as we will see, visually impaired people do not need eyesight for Me, their pineal gland, to regulate their Sleep-Wake system.

Where I live and my close relations

I am at the base of the brain, below the cerebral hemispheres, above the cerebellum and therefore the brain stem. I am based behind my colleague and collaborator, the hypophysis, which is located below the junction of optical nerves in the brain. This junction is called "optic chiasm ⁽³⁾" and explains why an expanding tumour of the hypophysis can cut off part of the field of vision.

I, the Epiphysis, although I prefer to be called pineal gland, am located right in the centre, on the median line, behind the hypophysis which is less than half an inch away. Above me, I am in direct contact with the centre of the brain and the basal ganglia of the thalamus and hypothalamus.

I will now explain how I receive information from the light of day and the shadows of the night, transforming them into hormonal secretions.

I receive this information indirectly. It transits via the nuclei located above the junction of optic nerves in the brain, the "suprachiasmatic nuclei" which represent the biological clock. This clock orchestrates the circadian regulation ⁽⁴⁾, i.e. our own 24-hour rhythm. These nuclei are two very thin structures which are the size of a pencil tip. Each contains tens of thousands of neurons. They are situated at the base of the hypothalamus and transmit sensory information derived from sight via specific nerve fibres called sympathetic fibres, therefore via the vegetative nervous system.

I, your pineal gland, convert the rhythm imposed upon me by the suprachiasmatic nuclei, as we will see, into 3 hormones produced during the night by my cells, the pinealocytes.

Like the hypophysis, I am outside the brain's protective barrier known as the "blood-brain barrier", which means I can distribute the hormones I produce throughout the body according to its needs.

What do I look like and what am I made of ?

In humans, I look like the fruit of a pine cone, a pine nut. I am 8 to 10mm in height, i.e. the size of a small cone located in median position, behind one of the brain ventricles, the third one which produces the cerebrospinal fluid (CSF).

My volume progressively grows until the age of one to two, after which I begin to stabilise. My growth resumes a little with puberty.

I should point out that, with age, i.e. as we get older ⁽⁵⁾, I can sometimes start to calcify. Therefore I become less effective and produce fewer hormones, as we will see later.

An academic name has been given to this phenomenon, which means "cerebral sand⁽⁶⁾". These are concretions of the excess calcium consumed in your diet, the calcium of animal dairy products. A maximum of 30% to 35% of this calcium is absorbed by your digestive tract, whereas you can absorb 75% of plant-derived calcium by chewing thoroughly.

A single dairy product a day is more than enough, and please remember to carefully chew it so that your palate can thoroughly savour it. That way there is no risk that I become overloaded or buried in sand!

My arterial and venous vessels and my nutritional needs

I am very well vascularised by the posterior cerebral artery which creates a rich network of numerous small vessels around me, notably the pineal artery which is meant for me.

Venous return blood is collected in the great cerebral vein, also known as vein of Galen, which recovers the blood from the deep part of the brain.

Like the entire periphery of the brain, I am surrounded by Cerebrospinal Fluid (CSF) and I do not receive any specific innervation; as a result you cannot say "I have a pain in my pineal gland" as you would say "I have a pain in my ovaries or testicles, or thyroid".

To facilitate the synthesis of the 3 hormones I produce from 10pm to 6am, I need to be in good condition and well nourished.

Therefore, in addition to effective vascularisation which ensures sufficient hydration, I need an essential amino acid (which you cannot produce yourself): Tryptophan.

This can be found in many foods if you don't cook them for too long or too hot ⁽⁷⁾: red meat, poultry, eggs (3 times more tryptophan than in dairy products), fish, dairy products, cashew nuts, liver, dates, bananas, pumpkin or watermelon seeds, almonds, peanuts, brewer's yeast.

You need at least 200mg of Tryptophan per day, only a tiny part of which is transformed into Serotonin. Don't forget that bees' royal jelly contains a large amount of Tryptophan, along with all other essential amino acids. You can consume 1g per day ⁽⁸⁾ in treatments of 2 weeks per month, under your tongue for sublingual absorption.

What is my purpose?

I am the supreme conductor of hormonal symphonies

I am an endocrine gland capable of producing hormones like the hypophysis, thyroid, adrenal glands, ovaries or testicles ⁽⁹⁾, pancreas, the fat tissue, etc.

There are three of these hormones.

Here are their names:

- **Melatonin**
- **6-Methoxyharmalan**
- **Valentonin**

These 3 hormones are responsible for regulating the "Sleep-Wake" system.

To fully understand their role, I should explain the formation cascade of each of them, and therefore their metabolic origins.

Melatonin: neuron protector

Aaron Bunsen Lerner (1920-2007), professor of Biochemistry and dermatology at Yale University in the USA discovered this hormone in 1958. He published this discovery in the American Journal of Chemical Society (80, 2587, 1958)

He also discovered the hormone which stimulates the formation of melanin to colour your skin and hair: "Melanocyte-Stimulating-Hormone", or MSH.

Contrary to what many scientists believed, Melatonin is not the sleep hormone. It is however a powerful neuron protector which prevents them from ageing as it protects them against the destructive action of "free radicals", i.e. molecules which oxidise the neurons.

6-Methoxyharmalan: wake and cognition hormone

In 1961, William M Mac Isaac et al discovered this second hormone in myself, the pineal gland. They published this discovery in the Science journal (134, 674-675, 1961).

They observed that Melatonin deficiency led to the deficiency in a well-known substance similar to LSD ⁽¹⁰⁾, "harmala alkaloid, 10-methoxyharmalan" (US nomenclature which corresponds with our 6-methoxyharmalan nomenclature), known for its intense psycho-stimulating properties.

Valentonin: the actual sleep hormone

In 1994, Jean Bernard Fourtillan finally discovered the sleep hormone, which he named "Valentonin", and thus the regulation of the Sleep-Wake system.

Earlier, in 1993, he developed an extremely sensitive Melatonin dosage method with his team (0.1 picogram per ml of blood) by combining (information intended for specialists) gas chromatography with mass spectrometry. (Published in Biol.Mass Spectrom, 23,499-509, 1994).

Valentonin was discovered in very low concentrations in the pineal gland of animals (30 to 50 picograms per gram of tissue). This discovery was not immediately published for intellectual property reasons (patents), pending the validation of national and international patents from 1995 to 2015.

The three of us, Melatonin, 6-Methoxyharmalan and Valentonin, constitute and regulate the Sleep-Wake system.

We protect the cells from oxygenated free radicals, particularly the nerve cells (neurons) in the brain, the heart but also the nervous system involved in the digestive tract. We regulate the mental and vegetative life of the body for the 24 hours of the diurnal cycle.

The biochemical cascade finally discovered

This is my cascade, Me your pineal gland. It was fully understood by a French scientist, Professor Jean-Bernard Fourtillan when he discovered Valentonin.

I must praise his incredible humility. Far from introducing himself as a great inventor:

- he claims he was spiritually driven expressing this in his excellent publications (book and brochure), La Glannde Pinéale et le Système Veille-Sommeil – Applications thérapeutiques (The Pineal Gland and the Sleep-Wake System - Therapeutic applications), available for sale on Amazon. I recommend it to physicians, specialists, researchers and even the general public, as it is accessible to everyone: "the miraculous concordances in the structure and functioning of this sleep-wake system".

- he entrusted his entire discovery to a Christian endowment fund, fonds-sœur-josefa.org to conduct research and care for patients suffering from neurological diseases.

The cascade of the 3 hormones produced simultaneously by me, your pineal gland, which cannot fail to interest and excite biochemists, begins with an essential amino acid, Tryptophan.

It is transformed by two enzymes (hydroxylase and decarboxylase) into Serotonin. Serotonin, from 10pm, is transformed into Melatonin thanks to two other enzymes, N-acetyltransferase and 5-hydroxyindole-O-methyltransferase.

Melatonin becomes 6-Methoxyharmalan by acetylation, and another simultaneous acetylation transforms it into Valentonin.

There you have it, I have introduced myself and let me tell you how delighted I am to have been discovered, in all modesty, and to share this discovery with you.

A Hippocratic foundation to benefit patients

You will find videos on the fonds-sœur-josefa.org website for further information:

["Pr J. B. Fourtillan answers questions from Pr H. Joyeux"](#) – (YouTube: duration 1 hour)

["The pineal gland and the Sleep-Wake system. Therapeutic applications"](#) – (YouTube: duration 37 minutes)

["The Sleep-Wake system in Creation"](#) (YouTube, duration: 14min 35s + 2min 13s)

As you can see, Professors Jean-Bernard Fourtillan and Henri Joyeux work together. They have known each other since 1974, as they point out in their first aforementioned letter dated April 2016.

They decided to combine their efforts, their complementarity, to share this phenomenal discovery in the interest of patients. The general public is therefore informed at the same time as the scientific community (after the National Pharmaceutical Academy), who are too inclined to hide behind private interests which end up on the stock market with money from our national health service. Where are Hippocratic ethics?

Some researchers will no doubt attempt to minimise the impact of this tremendous discovery.

I, your pineal gland, know that Jean Bernard Fourtillan and Henri Joyeux, long-time friends, will follow up on this information with several new letters by the end of the year.

They created the "Sister-Josefa-Menéndez-Fund", of which they are respectively Chairman and Vice-Chairman.

This fund will receive donations and royalties, as owner of the intellectual property rights, on the sales of medicinal products derived from the discovery of the Sleep-Wake system. In September 2015, Jean-Bernard and Marianne Fourtillan donated all intellectual property rights to the patents filed in February 2015.

All the proceeds will go towards medical and scientific research with a view to improving the treatment of neurological disorders, as well as any other disorders due to dysfunctions of the Sleep-Wake system. They will also support philanthropic projects relating to patients suffering from neurological disorders.

Future letters will of course address therapeutic applications in Alzheimer's, Parkinson's disease, sleep disorders, nervous breakdowns and even psychosis.

I will be in touch soon to continue to inform you and all your families.

Pr Henri Joyeux

Post-scriptum

On website fonds-soeur-josefa.org :

- **Book and Brochure** : « [The pineal gland and the Sleep-Wake system. Therapeutic applications](#) », for sale on Amazon.

- **The Videos You Tube** :

« [Pr J B Fourtillan answers questions from Pr H Joyeux](#) »

Pr J.B. Fourtillan et Pr H. Joyeux (You Tube : duration: 1 h)

« [The pineal gland and the sleep-wake system. Therapeutic applications](#) »

Pr J.B. Fourtillan (YouTube : duration: 37 min)

« [The Sleep-Wake system in Creation](#) »

Pr J.B. Fourtillan (You-Tube, durée : 14min 35 s + 2 min 13)

« [The causes and the treatment of Alzheimer's disease have finally been discovered !](#) »

Pr J.B. Fourtillan et Pr H. Joyeux (You Tube : durée 13 min 30)

« [The true causes and the treatment of Parkinson's disease](#) »

Pr J.B. Fourtillan et Pr H. Joyeux (You Tube : durée 14 min 25)

- **Donations** will help us independently finance the development of the pharmaceutical forms of the patches, see **Make a donation on website** fonds-soeur-josefa.org

Sources:

(1) La glande pinéale et le système veille-sommeil – applications thérapeutiques (The pineal gland and the Sleep-Wake system - Therapeutic applications) – Pr Jean-Bernard Fourtillan

(2) René Descartes, The Passions of the soul, Paris, Vrin, 1994 (1st edition 1649), Art. XXX, p 88.

(3) From the Greek χιασμος which, in surgical terms, means a cross-shaped incision.

(4) From the Latin circa, which means approximately, and dies, which means day.

(5) Yuki Tomonari, Junko Sato, Yumi Wako and Minoru Tsuchitani, "Age-related Histological Findings in the Pineal Gland of CrI:CD(SD) Rats", Journal of Toxicologic Pathology, vol. 25, [1st December 2012, p. 287–291

(6) In Latin Corpora arenacea refers to calcified structures. (From the word arēnāceus meaning "sand".)

(7) The ideal is therefore slow steam cooking up to a maximum of 95°C.

(8) Unless you suffered from or are suffering from cancer due to the growth factors it contains.

(9) The removal of "I, the pineal gland" in a child results in early puberty. However, when I am in overdrive, I can inhibit the thyroid by acting directly on Thyroid-stimulating hormone, the parathyroid glands and even the adrenal medulla. I can also reduce the production of hypophyseal growth hormone (or somatotropic hormone).

(10) Lysergic acid diethylamide (LSD, LSD-25) (from the German Lysergsäurediethylamid) is hallucinogenic. LSD features in the table of "substances with a potential for abuse which pose a serious risk to public health and limited therapeutic value". LSD was widely used in the 1960s and 1980s on the rock and pop scene, in the film industry and more generally in the artistic community. It caused numerous accidents: bad trips, suicides, criminal acts, etc. which have given it a "craze drug" image and resulted in its ban.