



Design of Biological Clock for Health Management with Systematics

Rajesh Laik*

Department of Biotechnology, Birla Institute of Technology Mesra, Ranchi, Jharkhand, India

***Corresponding Author:** Rajesh Laik, Department of Biotechnology, Birla Institute of Technology Mesra, Ranchi, Jharkhand, India.

Received: April 24, 2018; **Published:** June 07, 2018

Abstract

Human Cell Cycle gives birth to new cells hence the cell monitoring device has the ability to monitor the cell damage, repairing system this can be achieved with biological clock with biosensor can detect cancer stages their signaling molecule at the check point of cell cycle at G1 Phase, will determine the regulation and control of the cell cycle, in the cancer pathway and detect the damage, cell cycle monitoring is done by Bioinformatics Reactome server. All of our cell cycle pattern required for particular function is regulated by hormones, with the help of signal transduction pathway, we can control and monitor the system error, in any type of disease, but here i want to focus only on cancer signaling pathway and its system, expressed/repressed by biological logic its equivalent Boolean expression working with hormonal expression, which icorelated with fooding habit, because our fooding habit always changes with time, we need to develop an ideal and standard fooding habit for common hormonal signaling, the food we select to eat behave as hormones in our daily life style, accordingly our lifestyle changes behavior changes our health system. In this paper I would like to explore the fooding habit and its system biology which behaves and changes our Psychic nature and attitude hence out time management money management depends on this system biology, there after health management is correlated well with the selection of fooding habit and decides our clinical biochemistry, diary monitor our system as follows in this paper.

Keywords: Cell Cycle; Biological Clock; Cancer Pathway; Repairing System; Reactome Server; Fooding Habit

Introduction

Ideal fooding habit with clock is key factor to regulate the bio-clock for our system biology to behave naturally or artificially induced condition

Lavatory Time ----- Sleeping Time

Lavatory time to sleeping time is well regulated by and naturally automated by our internal hormonal function and their signal transduction and checks our health in systematic manner. Until and unless any artificial diversion of fooding habit occurs in our daily routine, the hormonal functions do not changes this depends on food change hence our behavior and psychology and neural functions accordingly. Fooding decides our oral system and lavatory system to function either in normal or abnormal conditions, hence we can know our digestion and liver coordination.

Awaking time – lavatory time – 24 hrs can change into 72 hrs and 84 hrs which is the biological clock behavior of our digestion and Liver, weekly lavatory time can be counted in to one days – two days maximum in normal, vegetarian and fasting fooding behavior

but heavy and more free radicals in non-vegetarian condition lavatory behavior changes 24 hrs. So our hormones behave in system as the fooding and nutrition system changes, our Biochemistry and hormone system.

Fooding behavior is lock and key mechanism to control our lavatory behavior and hormone signaling. Because enzyme functions with substrate food is substrate fits suitably into specific enzyme, which behaves competitive manner depending on the concentration of our food and free radicals, health is checked with proper feedback.

This competitive inhibition functions to regulate the biological clock behavior of our fooding habit, thus we decide if medicine is required or not as per chronic condition, for temporary cure but permanent cure is decided by natural fooding behavior. Thus we can say that our food is the decisive in nature to remain healthy as food changes into hormones in our daily life, changes our life style hence health management.

Materials

Our Biological Pathways and clock is decided by fooding habit include this statement in introduction.

Evidence more transfat and oil more beta oxidation.

More sugar more glycolysis.

I want to mention the some fooding nutrients as per my fooding habit which is ideal fooding behavior green vegetables with minerals and complete protein carbohydrate, to manage balance between osmosis and osmotic pressure in our liver, to balance the roughage system and the excretory system. Liver is key system for this functions. More expense of work more ATP burn - ADP and cyclic AMP from muscle protein is the glycolysis and anaerobic pathway starts their on. Food and medicine is well correlated with competitive inhibition depending on the fooding behavior hence treatment of disease. Thus check our system in our daily lifestyle. If we take toxin by mistake in our fooding behavior to check and feedback its toxin it is necessary check our lavatory in our biological clock between the lavatory time and the food we take and correlate and compare the food time and the lavatory time hence

check the nutrients irregularity in our fooding habit thus check the biological clock of our anabolic and catabolic balance in our system. The lavatory behavior with timing is the evidence of checking fooding system. And metabolic balance in our clock hence this decides which biological cycle is occurring in this process in our liver either glycolysis/gluconeogenesis or beta-oxidation pathway, this pathways are very knew switching behavior in out biological clock thus our hormone functions accordingly.

Types of cell - cell communication pathway are involved

1. Signal Transduction Pathways
 - a) Paracrine signaling
2. Second Messenger

Hypothalamus is the center of the brain which is the controller of our neuron, suns light falls on the retinal system stimulates the Ppsycho motor neuron, function to regulate the biological clock at different point of time in our daily regulate the biological clock at different point of time in our daily life style and hence health management.

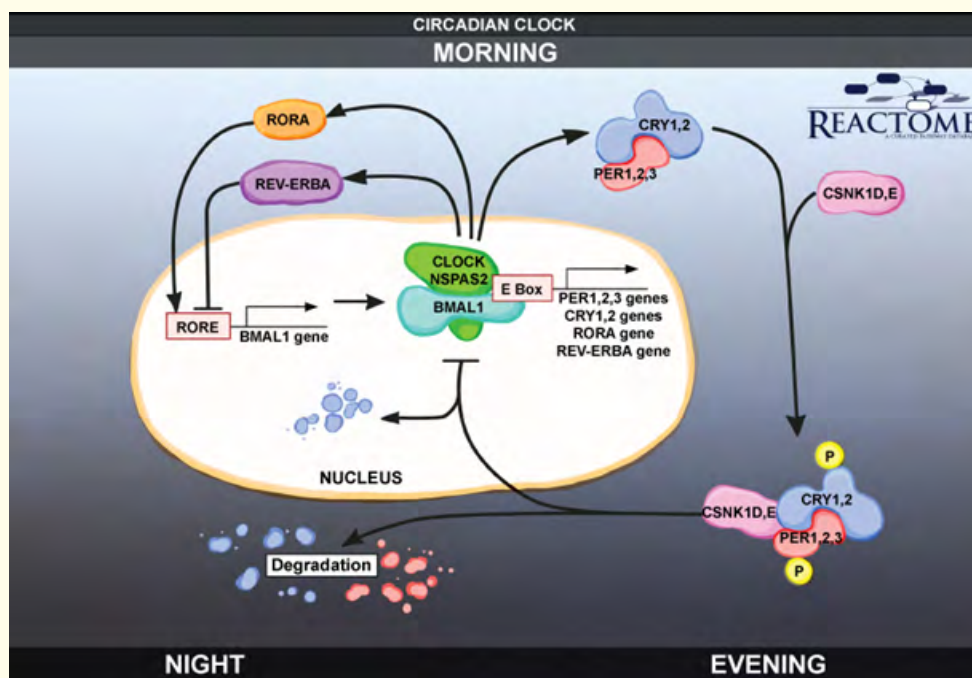


Figure 1: Biological Clock.

Morning Light Stimulates → SCN (Supra Chiasmatic Nucleus) Secretes Melatonin Hormone →

(Which peaks at night) and come down at morning again.

This clock gives the importance about the cycle of our life style pattern which starts from the early morning, fooding habit this controls the cell cycle but if any change in timing of the life style pattern or the fooding habit occurs, there could be an error in the cells growth pattern and hence the control of the normal cell from cancer cell will show the difference. This can be observed in the pathological specimens.

Biological clock follows this pattern in our life style, every part of this daily habit is sensitive to our daily clock system, which is maintained from early morning to night. Starts from cleanliness, purity of our soul associated with yoga. Pranayam makes and refresh the clock of our system, with inhalation of oxygen, formation of new Bblood cells, repair of the cell cycle, this can be very well observed at the injury site of the wound healing process, clotting time and the factors responsible for clot, is important for extra loss of blood.

Menstrual Cycle in case of female is the regular periodic clock at any week of a month.

1. Standard daily routine pattern.
2. Life style pattern of the normal human being.
3. Pattern of the human being under clinical observation at hospital.

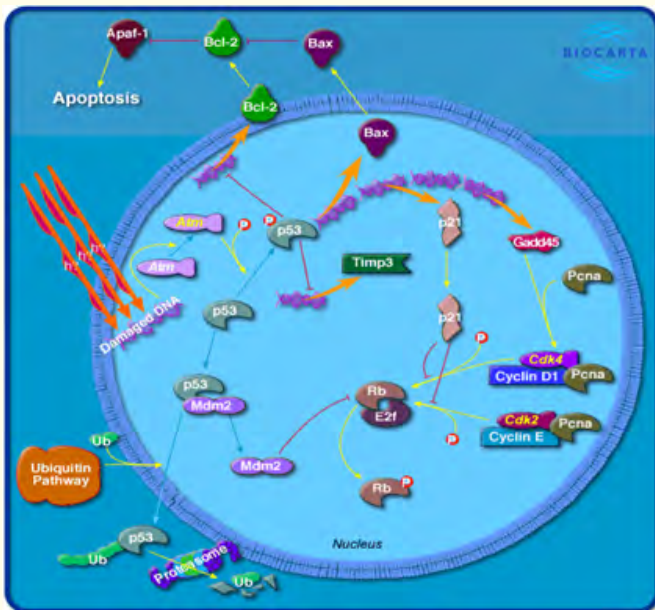


Figure 2

1. Early morning wake up.
2. Freshness with tooth paste cleaning.
3. Going to toilet, lavatory (Early morning).
4. Bathing.
5. Doing physical exercise, yoga (Pranayam and Byayam)
6. Have a fruits.
7. Heavy breakfast is important for high efficient work.
8. Heavy dinner (lead to laziness, late awake at Morning).
9. Early night sleep (Sleep-awake cycle regulated by hormonal switch).

Any changes in the life style pattern in our daily routine can affect the cell cycle regulation in controlling the biological clock to execute its normal function. Hence the cell leads to abnormal cell cycle can lead to precancerous state of the cell, thus the check points plays a significant role for controlling the biomarker, level thus this biomarkers detect cancer- which is correlated with biological clock.

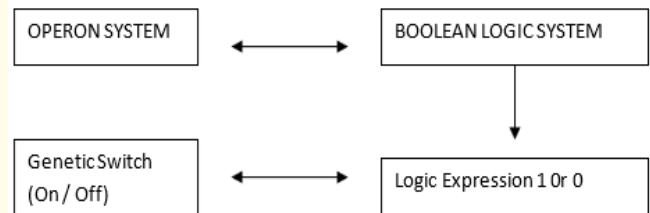


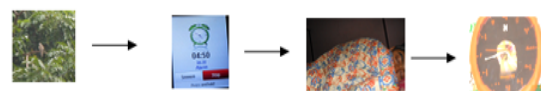
Figure 3

Logic 1 is switched on by promoter, 0 Logic means switched off by repression system. Depending on the behavior of the cell cycle regulation and the mode of operon pathways, there are different switch system in biological circuit the expression of the biomarker is controlled by regulon, stimulator and modulator.

Neural Clock

Neuron synapse system which has inhibitory function and the signal of neuron system is amplified with SCC (Signal conditioning circuit).

Algorithm to monitor Brain cognitive function with the Neural acoustic sensor



Neural Alarming System to Monitoring the sleeping behavior of Human thus the Brain cognitive function is interpreted & analysed
 Step 1. Birds at Early Morning- Whispering sound at 4.45 am
 Step 2. Mobile alarm - 4.50 am
 Step 3. Awaking alert - alarm acoustic sensor system
 Step 4. Matching with Clock time.

Figure 4

This system monitors the behavior of biological clock of our sleeping and awaking pattern

Biological Circuit

This pathway is important cellular circuit system which monitors the cancer genetic switch the apoptotic factor, how the regulations of P⁵³ gene occurs is shown here cdk4 phosphorylation occurs this is signaling Rb Protein passage in cell cycle. This is a very significant pathway for cancer monitoring its progression to advanced stage of cancer, specially for blood cancer patients leukemia, diabetes is the early stage of cancer.

The patients symptoms like hemoglobin affinity for oxygen increases due to the mutation of this P⁵³.

Hemolytic Anaemia

This is a genetic sequence of cyclin dependent kinase, it is the significant machinery, which controls and regulates the cell cycle machinery, at each check point of cell division, through phosphorylation and de-phosphorylation, the machinery is regulated from

G1 → S → G2 → M (Dephosphorylation stops the cell cycle at check point to proceed for cell division).

Conclusion

Balance between glycolysis----- ATP --- work to check the feedback of energy level and ATP Switching between glycolysis and gluconeogenesis, balance between osmosis and osmotic pressure is the necessity to regulate urination and lavatory cycle through 24 hr clock. Is important in our metabolic balance. This the feedback inhibition system for enzyme function also please include this matter in min subject or conclusion. Depending on the food we take our hormonal changes takes place and effects our behavior and mood swings and biological trimming and neural clock of our brain shifts positive and negative and decides the logic system. Right fooding habit in coordination with time is essential and crucial for maintaining the clock thus biological and our dieting correlates and behave as natural biosensor to maintain our healthy lifestyle and behavior [1-3].

Bibliography

1. Laik Rajesh and RN Gupta. "Design of wireless sensor network for development of Cancer monitoring system with biomedical informatics (Scopus)". Indian Journal of Microbiology and Related Research.
2. Rajesh Laik., *et al.* "Design of biosensor based on PH as a electrochemical transducer for early detection of Cancer". International Association of Scientific Innovation and Research (IASIR) (2014).

3. Rajesh Laik. "Study of Menstrual cycle for Early screening of Gynaecological disorders". *International Journal of Bioassays* 2.6 (2013): 907-908.

Volume 1 Issue 7 July 2018

© All rights are reserved by Rajesh Laik.