

LETTER TO THE EDITOR

TEACHING PHYSIOLOGY BY POETRY – AN ODE TO NEPHROS

Asked the student, his teacher Dr. Sidney
Sir, Is the bean shaped like a kidney
Whispered his friend, It remains to be seen
If what you said is the trend or is the kidney shaped like a bean!

Said their teacher, Renal physiology is not a bore
Do not make fun! It is not so lowly an organ
But rather is a top gun, maintains a high score
To balance pH, pCO₂, Na/K/Ca, glucose and lots more-----

The kidney is there to control and regulate
Blood pressure, volume, ions, water and bicarbonate
Vitamin D to activate, erythropoiesis to stimulate
Urea, Urate, Creatinine to Excrete
Renin, Prostaglandins, Angiotensin to secrete

HCO₃, HPO₄ and NH₃ are 3 excellent buffers
That control Acid base balance and are no duffers
The Na-K Pump situation is energetic all the time
Maintaining vital ion concentration with a reason and a rhyme

Urine Concentration, dilution and acidification
Urea, water balance and osmolar stratification
Fluid, electrolytes, protons, urea and osmoles
Drugs, xenobiotics, steroids, urates, amines and indoles

An intricate tubular design, a convoluted glomerular plethora
Life sustaining functions sublime performs this box of Pandora
A final common pathway to metabolize and stabilize
Environmental inputs and outputs to prioritize and optimize

A precise mathematic logic, a strong physiologic basis
It helps in fluid-electrolyte and also metabolite homeostasis
A system of such functional utility, keeps working non stop
To fine tune body's vitality, can never afford a flip flop

The trinity of filtration, reabsorption and secretion
Constitute the inseries and in parallel steps of excretion
To continue to keep constancy of milieu interieur
In the up and down turbulence of life's vicissitudes de rigieur

The waterworks and plumbing keep the integral systems intact
Nephron processes and feedbacks render body's variables exact
Supporting the brain, heart, lung, bones, marrow and liver
Benevolent kidney is no taker but the eternal giver

Diuresis and natriuresis, vital function of ADH surely is
Exchangers counter currents, multipliers reabsorb torrents
In rest and work, hot and cold, aridity and rain
Renal parenchyma has balances to maintain

A balance tuned so fine
Ordained by will Divine
No glamour or glory
nor paeans sung hoary

Silently, subtly and sufficiently it goes
About its daily diligent physiologic duty
So, this friends, is how efficiently renal blood flows
Highlighting kidney's salient functional beauty

Like Lord Shiva, purifier of Cosmos
Poisons it ingests, toxins it egests
Plasma composition it bests
Disorders it corrects and resets

So students of Physiology, never make jests
Rather, sing glorious Kudos
Acclaiming the vital Nephros
Refiner of Microcosmos
Through life's highs and lows...

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