

Molecular Dynamics of Skin Disorders

There is ample scientific research to confirm the hypothesis that aberrant communication between cells and their surrounding ECM delay or obstruct wound healing. Aberrant communications between cells and their surrounding ECM also leads to aging or disease. Several studies examining protein to protein interactions in aged and young subjects have demonstrated that aging is the result of disorganized protein to protein interactions. Correct timing and meaningful signals sent and received by cells during their whole existence are essential for the harmonious development, maintenance and survival of tissues, organs and bodies. Timing and Signaling also govern movement, thought and behavior of cellular «micro-societies» whose proper functioning requires a precise coordination of emission and reception of signals. This perspective combines timing, circadian rhythms and signaling communications in an organized complex that could serve as the cornerstone of Anti-aging, Regenerative and Preventive Medicine.

Signaling technology is based on the concept that time reversal is possible in microscopic mechanisms such as proteins. For example, AMP is routinely changing into ADP, then into ATP, then it reverses itself, back in time, into its previous state of ADP and eventually back into AMP. The process occurs by the addition or subtraction of a phosphate while the ATPase protein module spins clockwise or anti-clockwise respectively. GAP follows the same process of going forward in time, as it turns itself into GTP and GTP, only to reverse this process and go back in time by GTP returning to its earlier state of existence, i.e. GDP which then can become GAP and so on... Another example is molecules losing an electron and turning into free radicals which are defined by their odd number of electrons; only to go back to being stable molecules by the simple addition of an electron that turns their number of electrons into an even number. Stable molecules have an even number of electrons, while free radicals have an odd number of electrons, excluding oxygen which has an odd number of electrons while being a stable molecule. In conclusion, time reversal is not only possible in microscopic mechanisms, but it is what such microscopic mechanisms routinely do. Binding to specific elements changes molecules into completely different entities with completely different functions, endlessly going forward and backwards in time as part of their normal daily life. Regeneration is possible with some organs but it becomes progressively more limited with increasing complexity and time reversal becomes impossible with whole complex organisms such as mammals. If we lose an arm we cannot grow another arm. Yet a molecule that became a free radical by losing an electron can regain its status of a stable molecule by the simple addition of an electron! Time reversal which is impossible for us, is, in fact, that simple with molecular mechanisms. The deduction from this line of reasoning is that if we want age reversal our only option is to focus on molecular mechanisms and try to reinforce or repair their function.

A computer generated coordinated matrix of signals within discrete periods of time can be instrumental in wound healing and skin repair. Clinical evidence exists for successfully treating eczema, psoriasis, rosacea, acne and aging skin with signalling technology. There are certain restrictions in signal delivery: 1. Signals must be delivered in miniscule energies below thermal noise. It has been mathematically proven (Electron Gated Ion Channels, 2008) that at energies below thermal noise, the electron can amplify the ion gates of cells facilitating the passage of signals or even stem cell extracts that can be delivered into the cells without needles. In other words, such resonant computer generated signals must be delivered in a rhythm that is in sync with the rhythm of normal biological functioning, otherwise they will be discarded by the body. This is another aspect of the biological defence that protects us against systemic disorganization 4. Computer generated signals which are initially limited resolution must be translated into unlimited resolution signals by hardware digital to analogue components that can translate such signal from limited to unlimited resolution.