

Brief comments on the Pasteur Institute Euroconference: Tissue Repair / Chronic Ulcer Healing

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REPORT

Once again, the living vintage and scientifically well-suited Pasteur Institute became attired with its Tissue Repair and Ulcer Healing Euroconference, held on last March 17-18, 2005.

Many things deserve acknowledgment and appreciation: (i) A neat organized meeting - hosted by a diligent and friendly staff readily available to assist the attendees at a first glance. (ii) A pure scent of scholastic and academic environment blended with the relaxing excitement of exchange, transparent debate, and at the end, of education for everyone. (iii) Not less important were the coffee breaks around the posters and the Pasteur's Euroconference group photo at a sunny well-set internal plaza in a re-modeled portion of the facility.

The meeting itself left fond memories for all of us. With no place for questioning or hesitation, top worldwide leaders in the area of tissue repair, growth factors and cyto-protection came to enlighten the conference room and feed our minds. I will briefly summarize just a few of them. Bruce Molitoris showed his emerging intravital multi-photon microscopic technology allowing for a detailed visualization of the micro-endothelial injury during ischemia /reperfusion events. In the line of optical technology and non-invasive monitoring of tissue healing Bruce Tromberg presented the multi-dimensional imaging in thick tissues.

A number of speakers showed a plethora of exciting findings on the potential application of growth factors and stem cells in the most diverse niches of tissue and organ repair as: nervous system, heart, lungs, liver, gastrointestinal tract, as well as bones and cartilage, etc. All talks were brilliant and illustrative. The state-of-the-art in mucosal regeneration, gastroduodenal ulcers, and other forms of gastrointestinal injury such as inflammatory bowel disease were scrutinized-this culminated with the participation of Dr. Andrzej Tarnawski who ensured the posterity of Professor Stan Cohen's scientific legacy. Rick Schnellman taught us how to understand each other's role in the complex game of the transduction pathways. He showed a sober molecular dissection of the EGF-receptor and how Src, PI3-K, and Akt/PKB work for epithelial cells survival, migration or mitogenesis. The model of cell preconditioning mediated by the ERK/JNK activation pattern was illustrated by Dr. Bonventre using ingenious renal injury models, including ischemia/reperfusion.

Dr. Alexis Desmoulière, a well-known wound-healing specialist delivered a brilliant talk on wound cell biology, which particularly focused on the critical role in wound contraction and remodeling of the Myofibroblast. His talk took us on a tour of the origin of this cell and inside its contractile machinery from skin to liver fibrosis. TGF- β , and the appropriate balance

between MMP and TIMPs proved to be in-cast once again. In the chronic wounds / ulcer healing area, we enjoyed the expertise of Dr. Mustoe, a renown personality in the areas of growth factors, gene therapy, ischemic wound biology, and chronic wound management. Similarly, Dr. Luc Téot reviewed and up-dated the surgical management of problem wounds. Quite enjoyable were the lectures by professors Nakamura and Konturek on the salutary effects of HGF and Ghrelin respectively. HGF is fairly endowed with anti-fibrotic, reparative and cyto-protective actions. Konturek, on the other hand provided important information toward the understanding of Ghrelin biology,

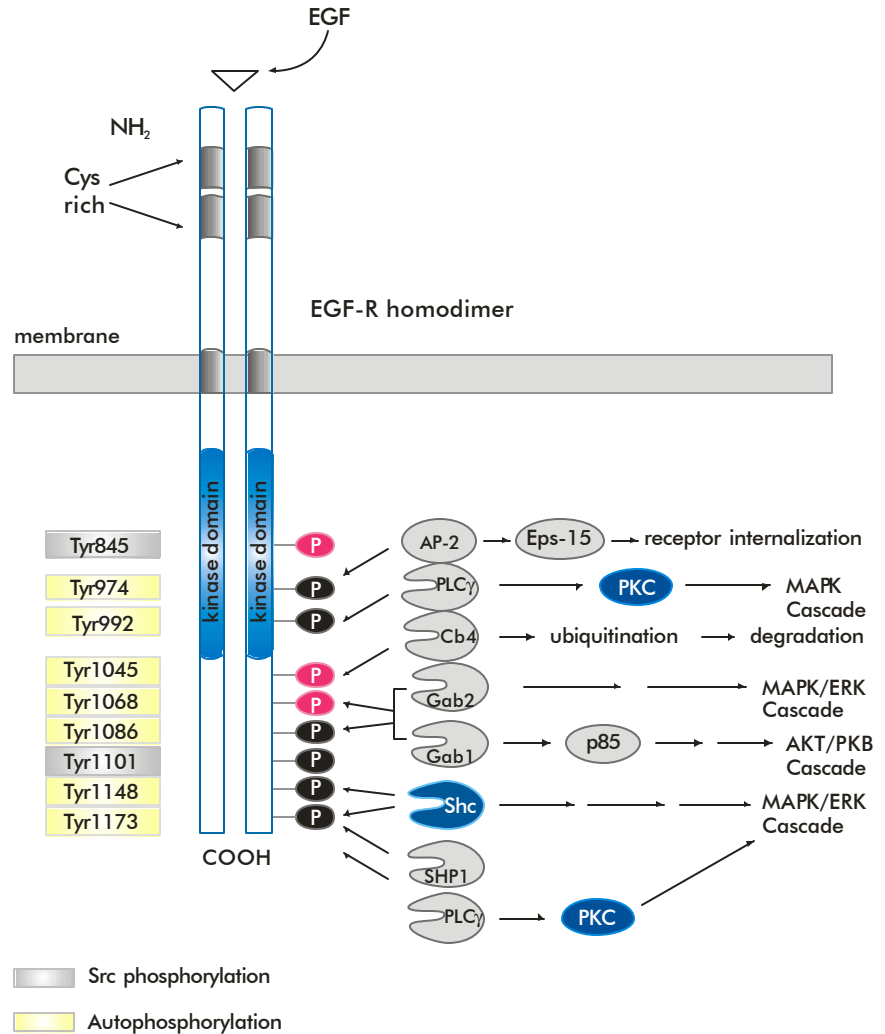


Figure. The Role of EGF receptor in epithelial cells physiology as depicted by Rick Schnellman.

while demonstrating its gastro-protective effects along a cascade of classic and unbeatable approaches.

The last but not the least was Harvard's representative David Mooney's lecture on how to deliver

inductive molecules as growth factors, genes and stem cells. Undoubtedly these technologies will strengthen the usefulness of "tissue repair molecules" toward a more refined medical armamentarium.