Frederick Husher et al., J Clin Exp Pathol 2017, 7:4(Suppl)
DOI: 10.4172/2161-0681-C1-037

Frederick Husher & Jee Shum

HS Technology LLC, USA

PRS – co-resident objective measure of IHC stain performance for process QC and diagnostic aid

The Process Record Slide (PRS) records the ImmunoHistoChemical (IHC) stain processing experience of a co-resident patient tissue section using arrays of stain reagent detection targets. Both experience all the IHC processing from tissue capture to the application of the cover slip: tissue capture, drying, deparaffination, antigen retrieval, primary antibody, and secondary amplification processing. Because the PRS targets are comprised of known reactivity concentrations to the stain reagents, an objective measure that is unique to that slide now exists remaining forever co-resident with the tissue section. The result is a captured efficacy record of the antigen recovery, stain reagents, and the processing technology. The PRS targets can be used with digital imaging to quantify the IHC processing upon the tissue section using the reference scales developed from the targets. The reference scales can be used for objective determination of antigen density in the tissue and QC reporting of the process. Additionally, utilizing the reference scales, the tissue section image presentation can be normalized to a preferred basis upon which optimal diagnostic determination can be achieved. Tele-diagnostics and second opinion are also possible since the unique processing experience is recorded.

Others have attempted to produce control slides but have all failed in meeting the constraints of mass production at an affordable price. Thus, only with the development of a new slide coating that meets the covalent binding needs of target & tissue, target printing technology, and production automation, can the goals be satisfied. PRS technologies satisfies these goals.

Biography

Frederick Husher and Jee Shum have pursed and refined the development of the PRS for more than a decade and they have successfully resolved many technology challenges including covalent adhesive slide coatings supporting both tissue and proteins, non-staining label paint, bio-target printing, and bio-target fabrication. A joint venture with the Hong Kong Productivity Council, to co-develop the production technology, will bring the PRS into commercial reality to benefit global health.

fkhusher@gmail.com

Notes: