« SÉMINAIRE NATIONAL IMAGERIE OPTIQUE IN VIVO » 17 & 18 SEPTEMBRE 2015 – AVIESAN (PARIS)

> APPEL À MANIFESTATION D'INTÉRÊT OFFRE DE SERVICES





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Quantitative Cellular Imaging Solutions for Biomarkers Identification and validation in Research and Cytology-HistoPathology



Mission: IMSTAR, an innovative SME, spin-off of the French CEA Life Sciences, designed, developed and markets its proprietary **Pathfinder™ ICS**, a versatile Scanner-Analyzer instrument for biomarkers quantification in Cytology & Histology-Pathology for automated, accurate, large scale *in vitro* morphology/phenotype characterization.

Technology – Know-How: The innovative Pathfinder™ ICS platform provides

- **Cost effective High-Content Analysis (HCA)** for abnormal/rare cells detection and biomarkers identification & validation applied to diagnostic, prediction and personalized therapeutic choice.
- **High-performance, up-scalable and distributed image /data analysis** for automated and reliable scoring, "review and validation" of cells selected by modeling algorithms leading to high sensitivity/specificity tests interpretation.
- **Cellular biomarkers p**roven track record : proliferation, differentiation, apoptosis, Her2, growth factors, hormone receptors, H2AX, adhesion, multiple protein analysis, signaling pathways, **CTC** and DNA damage & repair, using Customized Scientific Protocols designed to fit every marker's assessment.
- Pipeline of innovative tools for companion test in Oncology preclinical studies.
- Set-up and service of ~800 Pathfinder[™] ICS and stand-alone software world wide.





Quantitative Cellular Imaging Solutions for Biomarkers Identification and validation in Research and Cyto-Pathology

IMSTAR offers a large Library of Scientifically Validated Customized Software Protocols adapted to a variety of assavs and companion tests with unmatched workflow improvement (min10-fold)

FISH & IHC analysis







Multiplex IF protein guantification



Some features

algorithms at large scale

Dapi

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Keratin 18

differentiation and proliferation phenotype variations in PNT2 prostate cell line and in primary cells

Distributed Image-Data analysis: the ICS "Cloud" platform for complex

Phenotype Screening on siRNA cell-microarray using Pathfinder High-Content Imaging for multiplex study of

Pathfinder Image Cytometry PF for Biomarker characterization

Integrated Image Database Processing & Management (patented)

Compliant with OECD GL, CE mark for MD IVD, GLP



EdU

Prostate tumor

Gleason test

automation



Cells segmentation & multiphenotype



vH2AX Nuclei expression level



vH2AX signals

PARP-TUNFL apoptose quantification

CTC analysis



Lung cancer : CTC automated detection and classification using specific FISH probe





Telomere length analysis in metaphase

Colon cancer Lymphocyte infiltration index





Offer: Partnering for Innovation

Alliances and long term partnerships

- Software Out-Licensing. Co-development of customized test for personalized medicine.
- Business Alliance.

Partnerships & Customers

IMSTAR range of products has been validated through collaborative R&D consortia: 7 EC FP5-7 and Eureka ITEA2 public-private R&D consortia (Safe, Toxdrop, Comics, NewGeneris, HiPiP, Medusa...) and French consortia (NanoCTC, ExpeVivo-CTC).



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