



ESPERITE (ESP) acquires InKaryo, US start-up specialised in Bioinformatics for genetic diagnostics and molecular cytogenetic tests

ESPERITE's strengthens its diagnostic tests to top the market with eKaryotype, electronic whole-genome Karyotype test for liquid biopsy

Esperite welcomes Xitong li, Ph.D., ex-Verinata Illumina Director of Bioinformatics

Geneva, Switzerland – 19 March 2015

ESPERITE announces the acquisition of InKaryo, the US-based company from Silicon Valley specialized in cytogenetic analysis through next generation sequencing (NGS). *ESPERITE* incorporates Xitong Li, Ph.D., —former Director of Bioinformatics at Verinata Illumina— to its expert team to advance molecular diagnostics and translate breakthrough technology into high quality wider scope and affordable genetic tests to top the predictive and personalized medicine sector. This acquisition avails *ESPERITE* the most advanced bioinformatics analytical processing of NGS data for the detection and quantification of chromosomal numerical and structural abnormalities, improving and expanding the performance and resolution of the entire present and future genetic tests portfolio. Pursuant to the transaction, ESP will acquire the Inkaryo shares at a purchase price of USD260,000, and assume its obligations under its 2-year 6% USD 280,000 convertible bond due May 2015. Except for a small USD40,000 cash payment on completion, ESP is entitled to pay the purchase price in shares. If it elects to do so, the Sellers collectively will receive 73,530 new ESP shares. ESP is entitled to convert the convertible bond in ESP shares at a conversion price of EUR2.99.

ESPERITE will top the genetic tests market by analysing the entire genome for all chromosomal and sub- chromosomal abnormalities applicable to pre-natal genetic analyses, identification of causes of genetic disorders and high resolution tumor characterization.

ESPERITE is proud to incorporate Xitong Li, Ph.D., to its team to drive the company's scientific development. With a distinguished career in bioinformatics in the US spanning over 15 years, Xitong Li brings his experience in architecting solutions and delivering biomarker and genomic-based clinical diagnostic products to Genoma and *ESPERITE*. Before founding InKaryo, he was the Director of Bioinformatics at Verinata Illumina, Associate Director of Bioinformatics for Genomic Health, and contributed to Ingenuity Systems and Novartis Pharmaceuticals Corp. He received his Ph.D. in Cellular, Molecular and Developmental biology from the University of Rochester.

eKaryotype, higher resolution, higher accuracy than CGH, CMA or Microarrays

Through the examination of chromosomes in a sample, the karyotype test can identify causes of genetic disorders. InKaryo's revolutionary eKaryotyping generates a digital ideograph of high resolution and high accuracy using NGS in combination with the most advanced bioinformatics processes. *ESPERITE* will utilize eKaryotype to detect cytogenetic aberrations with higher accuracy and higher resolution across the whole genome at a cost lower than all major CGH or CMA microarrays commercially available.

InKaryo's NGS experimental protocol and proprietary bioinformatics analysis cover the full genome evenly with highly specific and accurate digital sequence output, reinventing karyotyping with a leap in quality yet at a fraction of the cost comparing array based comparative genomic hybridization (aCGH), or chromosomal microarray analysis (CMA). Sequencing will be to higher coverage and the test will look for large deletions and duplications uses advanced bioinformatics to find the large deletions and duplications.

Market size for cytogenetic karyotype

The global molecular diagnostics market has been estimated at 4.5 billion USD in 2013, and the global cytogenetics market will reach 1.9 USD billion in 2019. Analysts forecast growth in the global molecular cytogenetics Market at a CAGR of 23.51% over the period 2013-2018.

The global newborn screening market was valued at an estimated \$438.9 million in 2013 and is expected to reach \$819.6 million by 2019, growing at a CAGR of 11.0% between 2013 and 2019, fuelled by technological advancements, government support, and expanding panel of newborn diseases.

The perinatal Genetic Testing market is expected to continue its fast-paced growth posting a CAGR of 31.91 percent for the period 2014- 2019

The global market for prenatal diagnostics in 2010 was USD 5.35 billion and it is expected to grow with a CAGR of 4.35% and generate revenues of USD 5.89 billion by 2018. The U.S. and Europe are the market leaders in prenatal diagnostics.

Preimplantation genetic diagnosis (PGD) screening of embryos for aneuploidy will be a major growth application since approximately half of the cases of embryonic loss within assisted reproductive technology (ART) are associated with aneuploidy. Of the total PGD testing in the U.S., 78% search for chromosomal abnormalities such as aneuploidy, translocations, and gender determination. The remaining 22% of PGD testing search for single-gene mutations and human leukocyte antigen (HLA) typing. In the long term, prenatal testing and PGD will be in demand as women delay motherhood.

Xitong Li, founder of InKaryo: "We are committed to make high accuracy diagnostics affordable to people around the world by leveraging the next generation sequencing platform. We are excited to join *ESPERITE* to make our bioinformatics solutions widely available through GENOMA's genomic tests and develop its new products, setting new standards of healthcare."

Frederic Amar, CEO of *ESPERITE*: "The acquisition of InKaryo and its strong background strengthens our strategy to drive scientific development and our ability to create a solid pipeline of genetic tests"

About ESPERITE

ESPERITE group, listed at Euronext Amsterdam and Paris, is a leading international company in regenerative and predictive medicine since 2000, operational in nearly 40 countries with a network of 6,000 clinics worldwide. *ESPERITE* serves clients in its state-of-the-art lab facilities in Geneva coupled with ultra-modern processing and storage facilities in Belgium, Switzerland, Germany, Dubai, South Africa and Portugal. Its family stem cell bank, CryoSave, stores 280,000 samples from umbilical cord blood and cord tissue.

To learn more about the *ESPERITE* group, or to book an interview with CEO Frederic Amar: [+31 575 548 998](tel:+31575548998) - ir@esperite.com or visit the websites at www.esperite.com and www.genoma.com.

About InKaryo

InKaryo was founded by a group of scientists with expertise in all major next generation sequencing platforms (454, SOLiD, GAll, HiSeq, MiSeq, Ion PGM, Ion Proton, and Complete Genomics), sequencing reagents, sequencing applications, genomic diagnostics, and bioinformatics from our work at Genomic Health, Life Technologies, Ion Torrent, Illumina, and Complete Genomics.

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