Ulisse Biomed SPA – Theranostics platform

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UlisseBiomedS.p.A. (UBM) is an Italian Healthcare Biotech company active in the development of: i) *molecular diagnostic RT- PCR assays*; ii) *nano-switches for therapeutic drug monitoring of biologic therapies*; and iii) *anti-viral aptamers for therapeutic or diagnostic purposes.*

Three proprietary Technology Platforms: SagittaTM, NanoHybridTM and Aptavir

SagittaTM: superior and validated performance versus competition enabling accuracy and effectiveness of clinical molecular diagnostics (MDx)

Technology platform for molecular diagnostic purposes based on direct RT- PCR with High resolution Melt Curve Analysis. The platform's key features include advanced multiplex capabilities (detecting and genotyping up to 20 targets), the possibility to skip the nucleic acid purification step, the highest sensitivity and specificity.

Sagitta chemistry can be used in real- time PCR machine readers. The platform can be automated for high-throughput analysis without DNA/RNA extraction. A further evolution of Sagitta is an engineered cartridge format for point of care (POC) applications.

NanoHybridTM: allows nanotechnology medical devices development for the monitoring of biological drug sand vaccine immune response, providing specific and patient-tailored information, essential to design personalized therapies.
NanoHybrid allows to build nano-switches capable of instantly detecting the presence of protein biomarkers.

NanoHybridTM allows nanotechnology- based tools development for the monitoring of biological drugs and vaccine immune response, providing specific and patient-tailored information, essential to design of personalized therapies

Aptavir: allows to develop antiviral molecules, named aptamers, capable of limiting the infectivity of pathogens that can be used for therapeutic or diagnostic purposes.

Aptamers are short, single-stranded DNA or RNA molecules that can specifically bind to a molecular target via three-dimensional structures. Similarly to the way antibodies bind to antigens, aptamers specifically recognize and bind to their cognate targets through unique three-dimensional structures.

The platform can be applied to generate aptamers able to prevent or treat active infections.

Literature and scientific papers

- SAGITTA PAPILLOMAVIRUS & NUCLEIC ACID EXTRACTION Avian et al. Clinical validation of full genotyping HPV Selfy assay according to the international guidelines for HPV test requirements for cervical cancer screening on clinician collected and self-collected samples.
- SAGITTA PAPILLOMAVIRUS Clemente et al. Genotyping analysis by HPV Selfy of a VAIN2+ population.
- SAGITTA PAPILLOMAVIRUS Avian et al. An innovative smartphone-based self-sampling service for hpv home testing and genotyping.

- SAGITTA PAPILLOMAVIRUS Cafagna et al. Evaluation of HPV Selfy Extended assay performance for HPV genotyping of anal specimens
- SAGITTA RESPIRATORY Pachetti et al. Impact of lockdown on Covid-19 case fatality rate and viral mutations spread in 7 countries in Europe and North America
- SAGITTA RESPIRATORY Benedetti et al. SARS-CoV-2: march toward adaptation.
- SAGITTA RESPIRATORY Benedetti et al. Inverse correlation between average monthly high temperatures and COVID-19-related death rates in different geographical areas.
- SAGITTA RESPIRATORY Pachetti et al. Emerging SARS-CoV-2 mutation hot spots include a novel RNA-dependent-RNA polymerase variant.
    - Di Bella et al. Aspirin and Infection: A Narrative Review.
- SAGITTA PAPILLOMAVIRUS & NUCLEIC ACID EXTRACTION
    - Bonazza et al. Human Papillomavirus genotyping in oropharyngeal squamous cell carcinoma without extraction through EasyPap Direct HPV DNA Test.
- NANOHYBRID Mocenigo et al. Rapid, Cost-Effective Peptide/Nucleic Acid-Based Platform for Therapeutic Antibody Monitoring in Clinical Samples
- NANOHYBRID Rossetti et al. Effective Molarity to Design an Electrochemical DNA-based Platform for Clinically Relevant Antibody Detection.
- NANOHYBRID Rossetti et al. Antibody-Mediated Small Molecule Detection Using Programmable DNA-Switches.
- NANOHYBRID Porchetta et al. Programmable nucleic acid nanoswitches for the rapid, single-step detection of antibodies in bodily fluids
- NANOHYBRID Moro et al. Better together: strategies based on magnetic particles and quantum dots for improved biosensing
    - Zerbato et al. The Impact of Serum Albumin Levels on COVID-19 Mortality