











Press release Evry, France, June 4th, 2019

Personalized medicine – Bioinformatics – Medical genomics – Kidney disease diagnosis

Clinical evaluation begins for Diagen™ to take patients' genomic profiles into account along the nephrology care pathway

TRAASER, an innovative startup specializing in medical genomics, announces the start of clinical evaluation for its Diagen™ solution as part of the SAGE project, laureate of Bpifrance's Digital Innovation Competition organized for France's "Investments for the Future" program, to develop medical genomics for kidney diseases.

In collaboration with the Paris AP-HP public hospital, the project seeks to develop and validate TRAASER's **Diagen™ expert software**, associated with large-scale genomic data analysis software by **Biofacet**, in a kidney disease diagnosis protocol based on DNA sequencing. Genomic analysis, anticipated by most nephrologists, will provide greater diagnostic detail in cases of idiopathic renal deficiency, thus helping to clarify diagnosis for over 30% of the cases that remain unresolved today.

Practiced prior to transplant procedures, genomic analysis will make it possible to adapt treatment solutions for patients, anticipate potential complications, and predict the chances of transplant rejection. A clinical trial led by the nephrology emergency department at **Hôpital Tenon** (Assistance Publique − Hôpitaux de Paris) is now being prepared to start in the second half of 2019. The trial's goal is to demonstrate the approach's feasibility and efficacy by leveraging **Diagen™** and **Biofacet** software.



We would like to sincerely thank Bpifrance for their financial support, which enabled us to develop digital health tools for the future and support our goal to become a major player in the field of medical genomics. One of the project's biggest strengths is that it leverages the complementarity of our teams, allowing us to offer an innovative solution for an important clinical need.

François Artiguenave – CEO of TRAASER



The nephrology emergency department and renal transplantation of Tenon AP-HP public Hospital is the first nephrology department, in France, to have a genomic approach of transplantation associated risk. This approach was made possible by the development of the allogenomic concept as a part of the nephrogenomic. This project, led in collaboration with TRAASER, allows to propose to AP-HP patients a unique approach of renal transplantation risk but also to bring them a modern genetic diagnostic method. »

Pr Laurent Mesnard – Nephrology emegency and renal transplantation department of Tenon AP-HP public Hospital

TRAASER coordinates work that combines cutting-edge expertise in processing very high volumes of data (Big Data) and data analysis (AI), with the clinical expertise of the practitioners at Tenon Hospital (AP-HP), recognized worldwide for its work in renal pathologies.

The roles of the three participating partners are as follows:

TRAASER: Annotates and interprets genomic profiles determined by DNA sequencing to facilitate, guide, and safeguard the use of AI algorithm results for diagnostic purposes.

BIOFACET: Organizes and indexes the genomic database to query the hundreds of millions of genomic variants required by AI algorithms.

Tenon Hospital contributes its expertise in clinical research. The hospital recruits and informs patients and collects clinical signs. After genomic analysis, Hôpital Tenon will validate results and establish diagnostic conclusions.

Press contacts: Agence Amalthea

Célia Ringeval - (+33)1 76 21 67 55 - cringeval@amalthea.fr **Laurent Meggs** - (+33)1 76 21 67 54 - lmeggs@amalthea.fr

Press contacts AP-HP:

Éléonore Duveau et Marine Leroy - (+33)1 40 27 37 22 - service.presse@aphp.fr

* The <u>SAGE project</u> (Software for Automatic Genome Expertise) is one of 53 projects funded by the 5^{th} edition of the Digital Innovation Competition organized as part of France's Investments for the Future (PIA) program.

About TRAASER





TRAASER is an innovative company in the digital health field, specialized in developing software services for personalized medicine. Located in the Genopole science park in Evry, France, TRAASER won the Worldwide Innovation Competition in 2016. The company uses artificial intelligence tools to collect, manage, and interpret sequencing data in their clinical and therapeutic context to meet the critical needs of modern genomic analysis. TRAASER's proprietary expert software Diagen™ facilitates and accelerates access to the patient's genome for health professionals, enabling them to better establish their diagnosis and improve patient care, while building knowledge that is useful for improving and discovering new therapeutic options.

A TRAASER press kit is available upon request.

About BIOFACET

BIOFACET is a bioinformatics company with several years of experience in clinical genomic diagnostics in North America. BIOFACET develops and markets BiofacetSNP, a tool that stores and queries sequence variants, designed to meet its clients' needs for high-volume processing. BiofacetSNP handles deep queries on cohorts and populations in real-time. Running on a regular department server, and operating simultaneously on the entire range of digital data for "SNP-callers" and phenotypical text metadata, BiofacetSNP is a powerful comparative genomic tool that can dynamically extract precise and canonic information about any given genomic locus, for complete sets or sub-sets of thousands of individuals.



About APHP

AP-HP is Europe's largest university hospital structure, located near Paris' six universities and around the Ile-de-France (Paris) region. AP-HP works closely with many major research organizations, including CNRS, INSERM, CEA, INRA, Institut Pasteur, and more, in the hospital group's joint research laboratories. AP-HP comprises three world-class University-Hospitals: IMAGINE, ICM, and ICAN. A major player in applied research and innovation for health, the Paris CHU (University Hospital Center) created a network of support structures to coordinate health research and innovation: 14 clinical research laboratories, 17 clinical investigation clinics, 4 clinical research centers, 2 centers for early trials, 12 biological collection platforms, 1 integrated cancer research site, 12 major University-Hospital Research (RHU) projects, a health data warehouse containing information about care provided for 8 million patients attended annually. AP-HP researchers author nearly 9,000 scientific publications per year. Over 4,000 research projects are in progress today, including 1,240 sponsored by the AP-HP organization itself. With a portfolio of over more than 650 active patents and 270 operating licenses, AP-HP promotes the remarkable research work of its hospitals' biologists and clinical researchers, dedicating 1.5 M€ per year for their development. Nearly half of the patented







innovations are licensed by companies around the world and have served as the foundation for creating nearly 60 startups.

About the Investments for the Future Program



With 57 billion euros, the Investments for the Future Program (IFP), led by the General Secretary for Investment, was created by the French government to finance innovative and promising investments in the country. Six national priorities had been identify to allow France to improve its potential growth and employment:

- post-graduate education, research and formation,
- research development and economic world transfer,
- sustainable development,
- industry, small and medium-sized enterprise,
- digital economy,
- health and biotechnologies.

The program's third point, IFP3, fit into the Big Investment Plan (BIP) introduced by the Prime Minister September 25th 2017.

About Bpifrance

Bpifrance funds companies at every step in their development with credit, guarantees, and direct funding. Bpifrance assists companies with their innovation projects and international efforts. The organization now offers a wide range of solutions to support companies' export activities. The offering available for entrepreneurs includes consulting, the Bpifrance Université e-learning portal, professional networking, and business acceleration programs for startups, SMEs, and mid-sized companies.



Leveraging Bpifrance and its 48 regional agencies, entrepreneurs benefit from a local and efficient point-of-contact that assists them with their diverse challenges.

Follow on Twitter: @Bpifrance - @BpifrancePresse



LE GRAND PLAN D'INVESTISSEMENT