

**Search for a Spanish Partner for a
Bilateral R&D Project (this document will be shared with potential Spanish
companies)**

Organization	
Date of Request:	Feb 17, 2022
Company name:	Qatar Biomedical Research Institute
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SECTION 1: Your Company Profile

(Please give brief / to the point explanations. For more explanation on any point below, you may add a short paragraph as an annexure, with this document.)

Business Sector	Research and development
Company mission or core functions	<p>Qatar Biomedical Research Institute (QBRI), a national center of excellence and a global hub for biomedical and translational research, aims to improve and transform healthcare through innovation in prevention, diagnosis, and treatment of diseases affecting local and regional populations.</p> <p>QBRI is engaged in basic and applied medical research that strongly supports the translation of novel scientific discoveries into more efficient therapies and better preventative strategies for human diseases, ultimately leading to the development of personalized medicine</p>
Date of establishment	Founded in 2012 and moved to own building in 2017.
Ownership (if public and traded, add stock exchange and ticker symbol)	Research Institute under Hamad Bin Khalifa University (HBKU; Qatar Foundation)
Total number of employees	91

Number of employees in R&D	72 Researchers
Key products sold or services provided	<p>QBRI's core facilities provide a wide spectrum of innovative cutting-edge services and equipment. QBRI core facilities and capabilities include:</p> <p>Genomics: Next Generation Sequencing (RNA, Amplicon, whole genome, exome) Microarray (SNP, CNV, DNA methylation, gene expression, miRNA expression) Sanger sequencing</p> <p>Proteomics: commercial agreements with biotech companies for establishment of cutting-edge high throughput certified platforms for protein (Olink, Simoa) and autoantibody biomarkers immunome protein (Sengenics) research.</p> <p>Structural biology: protein biology, characterization, protein-X interactions</p> <p>Stem cell capabilities: facilitate the development of basic and translational stem cell research by providing scientific expertise, iPSCs derivation, directed differentiations, and genome engineering services.</p> <p>Translational/ clinical research: QBRI's strong partnerships with local organizations, such as Qatar Biobank, Qatar Genome Project, Hamad Medical Corporation, Sidra medicine, Qatar Precision Medicine Institute, and Shafallah Center (for persons with disabilities) provide patients with the access needed to forge a path toward precision medicine in Qatar.</p>
Company core technical competences	<p>QBRI's advanced laboratories are major hubs for driving forward cutting-edge research and innovation in Qatar and the region. Key technical competencies are within genomics, proteomics, structural biology, flow cytometry, advanced microscopy and imaging, stem cell and clinical research.</p>
Key R&D programs and activities	<ul style="list-style-type: none"> • Neurological Disorders • Translational Cancer and Immunity • Diabetes
Examples of accomplishments	<p>QBRI's scientists are actively involved in the development of new biomarkers and diagnostic/therapeutic strategies to facilitate early diagnosis, personalized treatment, and management of these debilitating diseases. Some examples of accomplishments are listed below.</p> <ul style="list-style-type: none"> • QABY Biotech™: in-house developed and trademarked diagnostic technology encompassing novel

	<p>antibodies, innovative assays, unique biomarkers and long-standing know-how for tackling neurodegenerative diseases. QABY technologies have been selected by several pharma companies to validate their clinical trials and to produce new diagnostic methods. QABY antibodies and kits are licensed directly to end users.</p> <ul style="list-style-type: none"> • Partnering with biopharma companies such as H Lundbeck A/S on co-development of pioneering diagnostic tools and assays for Parkinson's disease. • Collaboration with renowned US Cleveland Clinic to validate an autism eye-tracking tool - a test which analyzes a child's visual responses to various stimuli for autism diagnosis. • Investigator and center-driven collaborative initiatives have been established with stakeholders within Qatar and internationally. A key example includes the strategic partnership with the Harvard Stem Cell Institute to conduct joint stem cell research projects.
Company strategic orientation	<p>Precision Medicine (PM) is the ultimate goal of QBRI research activities.</p> <p>QBRI's Research Strategy for PM focuses on utilizing multi-omics to understand the risk factors and biological mechanisms behind diseases to enable personalized biomarkers for diagnosis and precise treatments.</p>

SECTION 2: Partner of Interest

(Please provide a brief summary of the prospective partner company or organization. This summary may address some or all of the points below)

Profile of ideal technology partner	We seek for a partner with a long-read sequencing specialization using nanopore sequencing technology platform including bioinformatics analysis.
Core technological competencies and expertise	Integral genetic study and diagnosis services using nanopore sequencing technology to resolve cases with no previous genetic diagnosis and

	<p>characterized complex structural variants and epigenetics. Expertise from library preparation to bioinformatic analysis of nanopore technology data.</p>
<p>Other essential qualifications (e.g.: ownership, track records etc.)</p>	<p>Strong R&D background with nanopore long read sequencing specialization, and structural variants characterization.</p>
<p>If you have a list of companies with whom you are in contact or interested in contacting, please provide contact details</p>	<p>Yes, we are interested in LongSeq Applications company.</p>
<p>If you are interested in collaboration: please specify details and other important information you want to share with a potential company</p>	<p>We need an easy way to share the data obtained, and to have a personalized support with the analysis of the raw results because we are not used to nanopore data outputs.</p>
<p>Interested areas of collaboration</p>	<p>We seek to find a partner specialized in:</p> <ul style="list-style-type: none"> - Identification and of structural variants - Identification of retrotransposones in the genome - Epigenetic modification detection using nanopore sequencing technology
<p>Specific R&D contribution you are seeking/offering</p>	<p>We seek to resolve cases of Autism with no previous genetic diagnosis and characterized complex structural variants</p>



Signature

Name: Salam Salloum Asfar

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