Expression of Interest (EoI)

For Public-Private-Partnership (PPP) in development of cost-effective **'Next Generation Therapies'** as translation biomedical products/solutions by leveraging developed knowledgebase/knowhow originating from biomedical research and deep expertise in translational science and technology available in CSIR-IGIB. Partnerships are sought from private entities in operational management, relevant infrastructure, financing and product development towards value added future therapies (solutions/products) ready to be commercialized/deployed for clinical disease treatment and/or health management. In general, in the PPP mode, CSIR-IGIB would primarily contribute knowledge/expertise including existing knowhow, and in furthering the next steps of technology development. It is expected, on the other hand, that the private partner(s) will contribute towards operational management, additional infrastructure as necessary, and funding for the joint development of the technology.

About CSIR IGIB

Institute of Genomics and Integrative Biology (CSIR-IGIB) is a constituent national laboratory under the Council of Scientific and Industrial Research (CSIR, India) and a premier institution engaged in research of national importance in the areas of genomics, genome biology, molecular medicine and bioinformatics. The institute has a stated mission to translate concepts developed in basic biological research to commercially viable technologies for health care.

Interest from private parties are specifically (but not limited to) invited for the following areas for joint development in the PPP mode.

Cancer Vaccines including Immune Cell Therapies

CSIR-IGIB has insightful research and development portfolio in the area of cancer research, particularly in the area of cancer-immune cell network interactions within the tumor microenvironment. The impact of these understanding on how tumors respond to immunotherapy is of contextual interest in developing effective targeted therapies. Furthermore, through genomic profiling of hundreds of cancer patients a nuanced understanding of global genomic/genetic alterations and their impact on treatment

outcome has been developed. It is envisaged that leveraging these extensive and deep research-based technological understanding available in CSIR-IGIB, in collaboration with private partners that bring in complementary expertise would enhance development of future therapeutic solutions in a timely manner. Particular areas of interest would be efforts towards development of cancer vaccines and cell-based therapies, including any other relevant area of common interest.

Obesity and Microbiome

Obesity in India is reaching alarming proportions and is being increasingly recognized as a major risk factor for a various complex diseases, including cardiovascular diseases, type 2 diabetes, certain cancers, and other metabolic disorders including liver fibrosis. Obesity leads to systemic inflammation, insulin resistance, and hormonal imbalances, all of which disrupt normal bodily functions and contribute to the development of these diseases. There are growing evidence suggesting that the composition and diversity of gut bacteria could play a key role in the development and progression of obesity. Thus, modifying the gut microbiome through prebiotic/probiotics/diet or other targeted therapy could be offer a potential strategy for managing obesity. Over the years, CSIR-IGIB has been working in the area of gut microbiome and has metagenomics data of thousands of samples collected from various parts of the country. Taking advantage of this, CSIR-IGIB in collaboration with academic Institutes/Private Organisations would like to develop strategies for modulating gut microbiota specifically targeting obesity.

Cell and Gene Therapy for genetic disorders (ex vivo and in vivo)

CRISPR-based therapies are revolutionizing medicine, with treatments like Casgevy already approved for sickle cell disease. Future applications aim to cure genetic disorders such as cystic fibrosis, muscular dystrophy, and certain cancers by directly correcting faulty genes. As research advances, CRISPR holds promise for treating neurological diseases like Huntington's and even age-related conditions, paving the way for precision medicine and potential lifelong cures. CSIR IGIB has developed, patented and commercialised (with industry partners) endogenously manufactured CRISPR technologies that can be used for correcting a wide variety of genetic disorders including the above. Additionally, the CRISPR technologies developed at CSIR IGIB can be used for inhibiting pathogenic infections (like HIV) or CRISPR based diagnostics in resource limited settings. CSIR IGIB is leading the first CRISPR based sickle cell clinical trial in India with an end to end manufacturing and clinical pipeline for Indian patients. It has

multiple platforms for advanced gene correction strategies (next generation gene editing tools and delivery vehicles) in the development with a large number of collaborators around the world.

Interested private partners may send an Expression of Interest to the following:

The Director,
CSIR Institute of Genomics and Integrative Biology,
Attn: Head-Business Development,
CSIR-IGIB, Sukdev Vihar, Mathura Road, New Delhi 110 025, India.
Email: director@igib.res.in and headbdmg@igib.res.in

The subject line to be mentiond “EoI for Technology Development in PPP mode”

For more details, visit www.igib.res.in