

## Job Description



# Exciting opportunities at Indo-Irish biotech start up CyGenica (Previously CyCa OncoSolutions)

## Position : Research Scientist-I (RS-2)

**Location:** 700 NIP, NCL Innovation Park, Dr Homi Bhabha Rd, Pashan, Pune, Maharashtra

Cancer is painful. The treatment chemotherapy makes it even more torturous. It makes life miserable for 18 million cancer patients worldwide. Every year we almost lose 50 % of them. As opposed to this imagine a world when cancer patients do not have to be hospitalized again and again to get multiple and massive doses of chemotherapy. That dream of reducing the pain of cancer patients keep us awake. We are working towards enabling safe and targeted delivery of cancer therapeutics (be it chemotherapy drugs or biological (genome editing) therapeutics).

In this journey we are seeking result oriented, talented, dedicated, passionate people who have a sense of urgency to solve problems to join our team and help us pioneer the field of molecular drug delivery and do big, bold things that have never been achieved before and deliver progress towards our mission. Are you full of hope and belief that, working together, we can revolutionize the development of truly transformative medicines to help patients around the world? If the answer is yes, then CyGenica is the place for you. If you want to be part of a multicultural international dynamic team, please send your latest curriculum vitae (CV) and a letter of intent to [info@cycaonco.com](mailto:info@cycaonco.com) latest by 15th July. CVs without a letter of intent will not be considered for selection.

## Why CyGenica?

CyGenica, an Indo-Irish startup founded in 2017 with funding from top Govt and private organizations. It operates from Cork, Ireland and Pune, India. We have developed a novel programmable biomolecular nanomachine that delivers therapeutic molecules to the precise cellular target. This technology has received international attention and recognition most notably national award from honourable President of India and the most innovative product award by New Frontiers Program, Enterprise Ireland.

We aim to develop the world's safest molecular carrier for drug delivery to improve patients' quality of life. Our long term goal is to grow as an authentic market leader in enabling the next generation genome editing therapeutics for cancer. This is the most exciting time of growth at CyGenica and you have a unique opportunity to contribute to the development of our innovative product and make the endless possibilities of CRISPR-Cas9 technology to positively impact human health especially in transformative cancer therapeutics development.

We are dedicated and continuously implementing strategies to build a welcoming and nurturing work place by empowering everyone to push the boundaries of science and pioneer the future of cancer therapy. This will lead to better outcome for millions of cancer patients suffering worldwide. And regardless of your job title you are adding to that ripple effect of that positive impact in patients quality of life.

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We are committed to live by our values compassion, grit and excellence – that guides our actions and decisions and brings us joy on a daily basis; patient centricity is at the heart and soul of our innovation.

CyGenica is an equal opportunity employer. Explore more about this opportunity and join us in this exciting journey!

### Where can you find more?

Website: [www.cygenica.com](http://www.cygenica.com)

Twitter: @CycaOncoSol

Linkedin: <https://in.linkedin.com > company > cygenica>

### Position Summary

Do you have expertise in bioconjugation chemistry, non-viral gene delivery vectors and/or genome editing? Are you passionate to develop the safest molecular carrier for delivery of CRISPR cas9/RNA based therapeutic molecules? Are you committed to apply your knowledge and expertise to discover and develop a life changing therapeutics for cancer? If the answer is yes, then you might find that challenge and opportunity at CyGenica!

CyGenica's core R&D group is seeking a scientist having the right expertise and attitude to develop non-viral delivery platform for genome editing in our oncology project. At CyGenica, we focus on high quality science, challenge the status quo and push our limits leading to better patient outcome. We are committed to pursue innovations to enable cancer therapy with less side effects.

This is an advanced role offering an incredible and exciting opportunity to bring your valuable expertise not only to be a part of cutting-edge research (at the interface of biotechnology, bio-functional chemistry and cell biology) but also to develop transferable skills by working with a fast-growing startup.

Good communication skills and an ability to collaborate across functional areas is essential. The candidate will contribute to the group wide deliverables and be required to work on several projects simultaneously presenting results and updates at group meetings. The successful candidate will independently design, perform, and analyze experiments for our preclinical programs, and will work independently to support process development, product characterization, and technical transfer to CDMOs and CROs.

### What you might do on a typical day?

In this role, you will carry out characterization and development studies on biomolecule (antibodies, proteins, peptides, RNA) conjugates to support genome editing therapeutics design and development.

This position will possess a background in bioconjugation chemistry, analytical techniques and molecular biology techniques. You will create novel edits in the genome and characterize the functional consequences of the edit using a range of techniques. You will continuously evaluate each process and technique to assess its robustness, suitability, and scalability; introducing required modifications and improvements when necessary.

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### Duties and Responsibilities:

#### Technical skills:

- Design and execute conjugation reactions with biomolecules (antibodies, proteins, peptides, RNA) and carry out characterization studies
- Primary cell culture experience (T cells and Stem cells) and genome editing in mammalian cells
- Experience with UV-vis, fluorescence, reverse-phase liquid chromatography, size exclusion chromatography, cation exchange chromatography, mass spectrometry (MALDI TOF, ICP MS), Atomic Absorption Spectrometry & flow cytometry
- Experience with molecular biology techniques such as PCR, cloning, mRNA quantification (qPCR), ddPCR protein quantification (Western blot), and reporter assays

#### Data documentation:

- Independently analyze, interpret, and provide conclusion and present experimental data
- Prepare and review relevant SOPs and reports to industry standards
- Maintain clear and complete experiment records on a daily basis

#### Research Strategy formulation and implementation

- Collaborate with colleagues across multiple areas by presenting problems and proposing solutions in discussions with group members. Coordination with local CRO's and specialist labs (within the team and with external collaborators) Collaborative, openness, entrepreneurial spirit, proactive. ownership mindset, undaunted, fearless, can-do attitude
- Support in development and execution of annual scientific and operation plan
- Support the PI and research group in the design and development and implementation of the broader research program
- Within the constraints of IP protection of the project, disseminate the outcomes of the research in which he/she is engaged including funder reporting, industrial demos and publishing in high quality peer reviewed journals of international standing
- Read literature on relevant proteins/protein drug conjugates and related research areas (immuno-oncology, gene therapy, gene editing)
- Support as required, in the development of proposals for research funding
- Support in writing and submission of reports to our strategic partners

#### Laboratory Management:

- Support and foster a safe and efficient working environment within the Laboratory and ensure the safety of colleagues and visitors and adhere to all health and safety guidelines
- Identifying and sourcing equipment and consumables (ordering and stocking) necessary
- Routine maintenance and troubleshooting of scientific equipment
- Carry out administrative work associated with the program of research as necessary
- Performs any additional tasks or projects as required

### Soft Skills:

- Track record of strong problem solving and troubleshooting skills, organized, detail oriented, ability to prioritize responsibilities, multi-task, and remain flexible with changing needs
- Demonstrated professionalism and focus on the KPI of the company/institute
- Strong written and oral communication skills
- Promotes quality and consistency
- Practices accountability and drives results
- Proficiencies in MS Office and relevant software
- Strong interpersonal skills with the ability to engage effectively with various levels of management, staff, and clients.
- Ability to manage multiple projects concurrently and meet deadlines

### What is essential for the role?

- PhD and/or MD in Biochemistry, Biophysics, Chemistry, Pharmaceutical Science, molecular and cell biology or a related field with 0-2 yrs experience in bioconjugation chemistry, non-viral gene delivery vectors and/or genome editing
- In-depth knowledge of functionalization of biomolecules, genome editing and oncology disease area biology
- Ability to drive, manage, execute and deliver results for complex multi-functional projects
- Highly developed problem solving and risk management skills
- Highly developed collaborative working skills
- Ability to act as ambassadors and engage effectively with our stakeholders and partners to enhance the image and reputation of CyGenica
- Proven ability to motivate and develop others
- What do we desire for the role?
- Proven expertise in genome editing therapeutics development

### What's next?

- Are you already imagining yourself joining us? Good, because we are excited to hear from you.
- Are you ready to bring your skills and attitude to the table? Great! We have one seat available and we hope it's yours.
- If you're curious to know more then please reach out to Fazlul H Krishnan (fazlul@cycaonco.com)