Postdoc Opportunities: Cancer Genomics for Regulatory RNA Therapeutics

Are you an ambitious researcher looking for a challenge at the forefront of cancer, genome editing and RNA therapeutics?

The Laboratory for Genomics of Long Noncoding RNAs and Disease (GOLD Lab) is hiring! Based in the Conway Institute at University College Dublin (Ireland), we are an interdisciplinary team of passionate researchers dedicated to understanding the roles of long non-protein-coding RNAs (lncRNAs) in disease. We love to create new tools based on CRISPR-Cas genome editing and bioinformatics to discover new and interesting lncRNAs. We participate actively in major international consortia (Genomics England, GENCODE, FANTOM).

We strive to foster a supportive, collaborative, successful and fun lab community.

The Project: We have openings for **two Postdoctoral Researchers** funded by a prestigious Research Ireland (SFI) Frontiers for the Future Award. This project will investigate how tumour mutations act through lncRNAs to drive cancer, and how we can harness this for novel therapies. Our unique dataset is 16,000 whole tumour genomes from Genomics England. We will apply cutting edge methods including advanced genome editing (Prime editing, CRISPRi), oligonucleotide therapeutics and machine learning. The project will benefit from world-leading Collaborators Catriona Dowling (RCSI, disease modelling) and Colm Ryan (UCD, computer science).

We are recruiting two distinct profiles:

Postdoc 1: Experimental Researcher

You will lead the biological discovery and therapeutic proof-of-concept aspects. You are somebody who loves developing new molecular methods, biological engineering, and pushing the boundaries of genome editing.

- Responsibilities: High-throughput genome editing for functional screening, advanced disease models, developing therapeutic oligonucleotides.
- Requirements: Strong background in molecular/cancer cell biology. Experience with genome editing, RNA biology, functional cancer assays, method development is highly desirable.

Postdoc 2: Bioinformatic Researcher

You will lead the computational discovery and mechanistic prediction of driver mutations using patient cohort data. You are somebody with a gift for extracting interesting scientific signals and hypotheses from complex messy data.

- Responsibilities: Driver gene discovery from 16,000+ tumours, multi-omic integration to predict molecular mechanisms, processing NGS data from genome editing screens.

- Requirements: PhD in Bioinformatics, Computational Biology, Statistics or similar. Proficiency in Python/R and experience working in a scientific computing environment. Experience with pooled CRISPR screen analysis, cancer genomics, molecular evolution or NGS data analysis is highly desirable.

We are searching for collaborative, independent, self-motivated creative thinkers.

What we offer:

- A high-profile project bridging basic genomics and translational therapeutics.
- Competitive salary (See Research Ireland scale at https://www.sfi.ie/funding/sfi-policies-and-guidance/budget-finance-related-policies/SFI-Team-member-scales_Jan-2024-to-Jun-2026.pdf).
- Access to state-of-the-art infrastructure at UCD Conway Institute.
- A vibrant, social, and inclusive lab environment including annual Retreats.

To Apply: Send your CV and a brief motivation message to Dr. Rory Johnson (rory.johnson [at] ucd.ie) with the subject line "RIBOncology Recruitment". Please indicate clearly which role you are applying for and where you heard about this opportunity. Informal enquiries are welcome. Interviews are envisaged to take place in April 2026, with anticipated start date June 2026.

Website: https://www.gold-lab.org/ Twitter: @GOLDLab_UCD

Selected recent publications:

- *Targeting and engineering long non-coding RNAs for cancer therapy.* Coan et al. Nature Reviews Genetics (2024).
- *Tumour mutations in long noncoding RNAs enhance cell fitness.* Esposito, Lanzós et al. Nature Communications (2023).
- *Multi-hallmark long noncoding RNA maps reveal non-small cell lung cancer vulnerabilities.* Esposito, Polidori et al. Cell Genomics (2022).
- *Analyses of non-coding somatic drivers in 2,658 cancer whole genomes.* Rheinbay et al. (PCAWG Consortium). Nature (2020).

(Full publication list here: https://tinyurl.com/goldlabpubs)

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