**PhD Scholarship Advertisement**

Fully Funded PhD Scholarship in **RNA-Based Molecular Machines and Computation**.

Application(s) are invited from suitably qualified candidates for full-time funded PhD scholarship(s) starting in September 25 affiliated to the School of Computer Science, College of Science and Engineering at the University of Galway.

**University of Galway**

Located in the vibrant cultural city of Galway in the west of Ireland, the University of Galway has a distinguished reputation for teaching and [research excellence](https://www.universityofgalway.ie/our-research/)

For information on moving to Ireland please see [www.euraxess.ie](http://www.euraxess.ie)

**Detailed Project Description**

At its core, life is computation. Every cell is an intricate molecular processor, receiving inputs, modifying internal states, and producing outputs in a continuous, dynamic dialogue with its environment. But unlike silicon-based computers, biological computation does not rely on rigid logic gates or binary circuits. Instead, it is fluid, emergent, and deeply entangled with the materiality of molecules themselves. This project explores RNA not merely as an information carrier but as an active computational substrate—a material capable of self-assembly, transformation, and information processing. We aim to engineer **RNA-based supramolecular machines**, molecular constructs that interact via oligonucleotide exchange, forming programmable networks that process inputs, compute transitions, and reconfigure in response to molecular signals.

**Living allowance (Stipend):** €25,000 per annum, [tax-exempt scholarship award]

**University fees**: Fees are paid on behalf of the PhD candidate.

**Start date**: September 2025

**To Apply for the Scholarship:**

Interested candidates should send an email to effirul.ramlan@universityofgalway.ie with (1) A CV detailing academic background, relevant experience, and publications (if any), (2) A short research statement (max. 1 page), and (3) Any additional supporting materials (e.g., code, project reports, preprints) that highlight your relevant expertise in biological computing or related areas.

**Application Deadline:** March 31st, 2025, at [23:59] (Irish time 24hr format)

**Supervisors**: Dr. Effirul Ramlan, and Dr. Andrew Flaus