Synthetic Biological Circuit Summer Internships

Join Synthetic Biological Circuit summer internships to explore the design and engineering of biological circuits, focusing on genetic programming, synthetic biology, biomolecular logic gates, and their applications in biotechnology, biosensing, and therapeutic interventions.

Focussed Areas under Synthetic Biological Circuit Summer Internship

1. Design and construction of synthetic biological circuits
2. Genetic programming and gene regulatory networks
3. Biomolecular logic gates and switches
4. Applications of synthetic biology in biotechnology
5. Synthetic biological circuits for biosensing and diagnostics
6. Gene circuits for therapeutic interventions
7. Cellular computation using biological circuits
8. Engineering synthetic transcriptional and translational control
9. Metabolic engineering using synthetic gene circuits
10. CRISPR-based gene regulation in synthetic circuits
11. Synthetic biology for environmental and industrial applications
12. Design of robust and stable synthetic gene networks
13. Applications in synthetic biology for drug discovery
14. Microbial synthetic biology circuits for bioproduction
15. Synthetic circuits for controlling cell behavior
16. Biological computing using synthetic gene networks
17. Applications of synthetic biological circuits in tissue engineering
18. Programmable cell-based therapies using synthetic circuits
19. Modular design of biological systems for synthetic biology
20. Ethical and safety considerations in synthetic biological circuits

Protocols Covered across various focussed areas under Synthetic Biological Circuit Summer Internship

1. Protocols for designing and constructing synthetic gene circuits
2. Techniques for engineering biomolecular logic gates
3. Protocols for CRISPR-based gene regulation in synthetic circuits
4. Techniques for metabolic engineering using synthetic circuits
5. Protocols for biosensing and diagnostic applications
6. Synthetic biological circuit design for therapeutic applications

7. Cellular computation protocols using biological circuits
8. Techniques for ensuring circuit stability in synthetic biology
9. Protocols for gene circuits in drug discovery
10. Protocols for programming cell-based therapies

Duration: 5, 10, 15, 20, and 30 Days

Note: Please cross confirm whether internship slots for this field are available before joining.

Click Here for Synthetic Biological Circuit Summer Internship Fees

Application Process and Other info