

Glycan Structure Chemistry — Linkages & Branching — Hands-on

Deepen your understanding of glycan structure chemistry. This module connects monosaccharide stereochemistry, glycosidic linkages, branching patterns and conformational preferences to how glycans behave in real biological and analytical contexts, preparing you for advanced glycomics, glycoproteomics and glycoengineering work.

Glycan Structure Chemistry — Linkages & Branching

[Help Desk](#) · [WhatsApp](#)

Session Index

[Session 1 — Monosaccharide Stereochemistry & Conformation](#) [Session 2 — Glycosidic Linkages & Bond Geometry](#) [Session 3 — Branching Architectures & Structural Motifs](#) [Session 4 — Mini Capstone: Structure to Function Stories](#)

Session 1

Fee: Rs 8800 [Apply Now](#)

Monosaccharide Stereochemistry & Conformation

Chirality, stereocenters and carbohydrate configuration

[D and L series](#) [Fischer projections](#) [Haworth projections](#)

Ring forms and anomeric effects

[pyranose and furanose](#) [alpha and beta anomers](#)
[mutarotation basics](#)

Conformational preferences of hexoses

chair and boat forms **axial vs equatorial** **steric and electronic effects**

Session 2

Fee: Rs 11800 Apply Now

Glycosidic Linkages & Bond Geometry

Glycosidic bond formation concepts

anomeric position **leaving groups overview**
activation strategies overview

Describing linkages in practice

alpha 1 4 and alpha 1 6 **beta 1 3 and beta 1 4** **sialyl and fucosyl linkages**

Linkage effects on stability and recognition

enzyme specificity **lectin binding** **susceptibility to hydrolysis**

Session 3

Fee: Rs 14800 Apply Now

Branching Architectures & Structural Motifs

Branching patterns in N and O glycans

bi tri and tetra antennary **core and outer arm modifications** **high mannose vs complex**

Common structural motifs and epitopes

Lewis antigens overview **sialyl Lewis patterns overview** **lactosamine repeats overview**

3D shape and flexibility of branched glycans

conformational ensembles **steric crowding**

implications for binding surfaces

Session 4

Fee: Rs 18800 [Apply Now](#)

Mini Capstone: Structure to Function Stories

Rebuild real glycan structures from literature diagrams

from monosaccharide list to full branched structure

Relate linkages and branching to biological outcomes

clearance and half life **receptor recognition** **disease associated changes**

Deliverables and technical documentation

PDF or HTML mini report **annotated linkage maps**
structure and metadata table