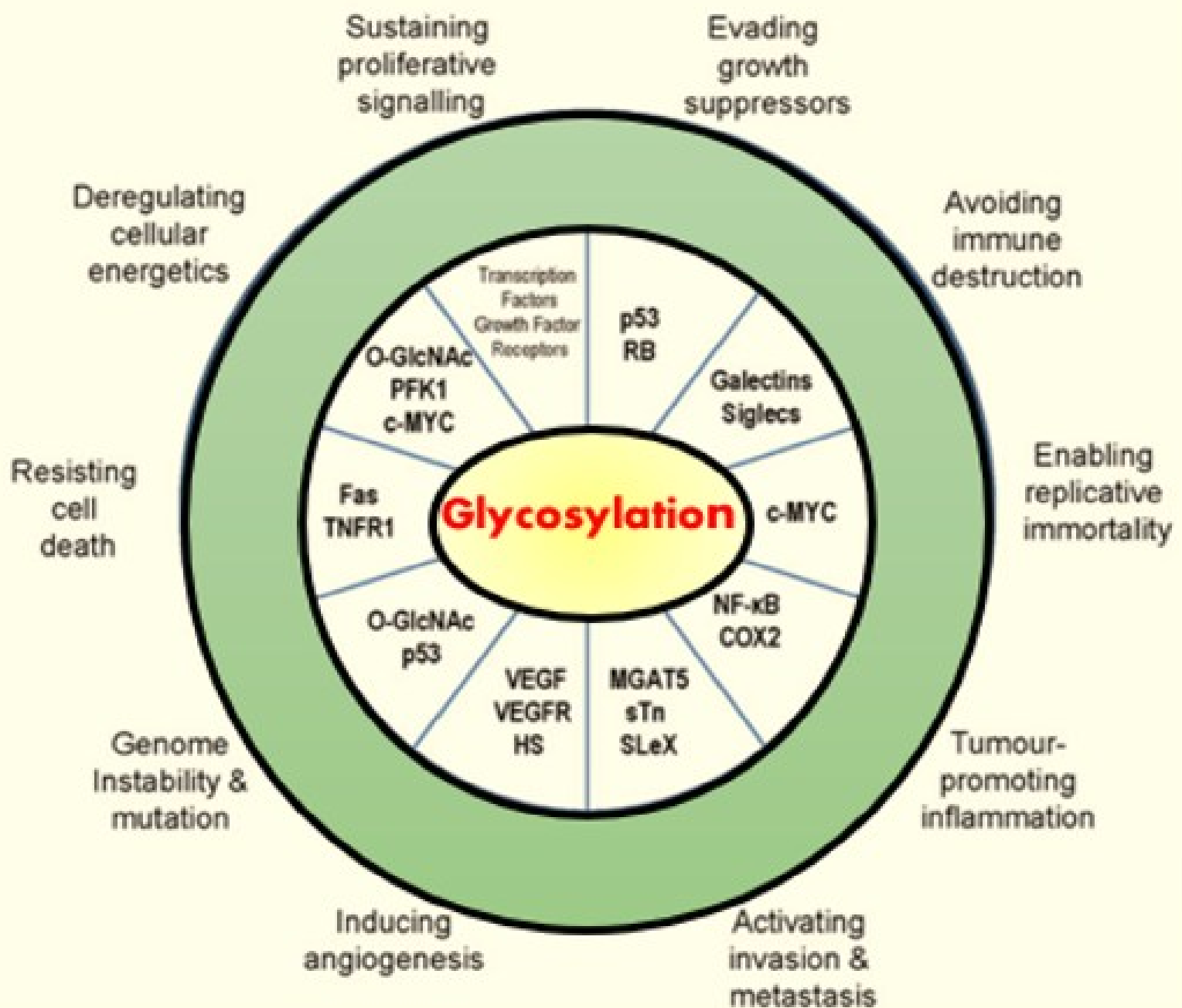


# A Glance at Currently Accepted “**Hallmarks of Glycosylation in Cancer & Future Perspectives**”



*Dr. H. K. Saboovala* . M.B.(Bam) M.R.S.H.(London)

# Hallmarks of Glycosylation in Cancer & Future Perspectives

Cancer cells acquire a series of biological capabilities that enable them to **survive, proliferate, invade surrounding tissues, and spread throughout the body.**

These characteristics, collectively known as the "**hallmarks of cancer,**" represent the fundamental processes underlying malignant transformation and disease progression.

Among the **molecular alterations** observed in cancer, **abnormal glycosylation** has emerged as a critical but often *underappreciated feature.*

Changes in the structure and expression of **glycans** on **cell-surface** and **secreted proteins** influence numerous aspects of **tumour biology**, including ***cell signalling, invasion, angiogenesis, metastasis, immune evasion,*** and interactions with the ***tumour microenvironment.***

This booklet provides a concise overview of the relationship between ***glycosylation*** and the **hallmarks of cancer**, highlighting how aberrant glycosylation contributes to multiple cancer-promoting processes and may serve as an important source of **diagnostic biomarkers** and **therapeutic targets** in ***modern precision oncology.***

**Dr. H. K. Saboowala**

*M.B. (Bom), M.R.S.H. (London)F.F.M.(UK)*

## **Table of Contents.**

<b>1.</b>	<b>Introduction.</b>	<b>5.</b>
<b>2.</b>	<b>What is GLYCOSYLATION?</b> <b>2.1.Sustaining Proliferative Signalling.</b> <b>2.2. Evading Growth Suppressors.</b> <b>2.3.Deregulating Cellular Energetics.</b> <b>2.4. Resisting Cell Death.</b> <b>2.5. Enabling Replicative Immortality.</b> <b>2.6. Activating Invasion and Metastasis.</b> <b>2.7. Inducing Angiogenesis.</b> <b>2.8. Genome Instability &amp; Mutation.</b> <b>2.9.Tumour Promoting Inflammation.</b> <b>2.10.Avoiding Immune Destruction.</b>	<b>9.</b>
<b>3.</b>	<b>Conclusions.</b>	<b>39.</b>
	<b>References.</b>	<b>43.</b>