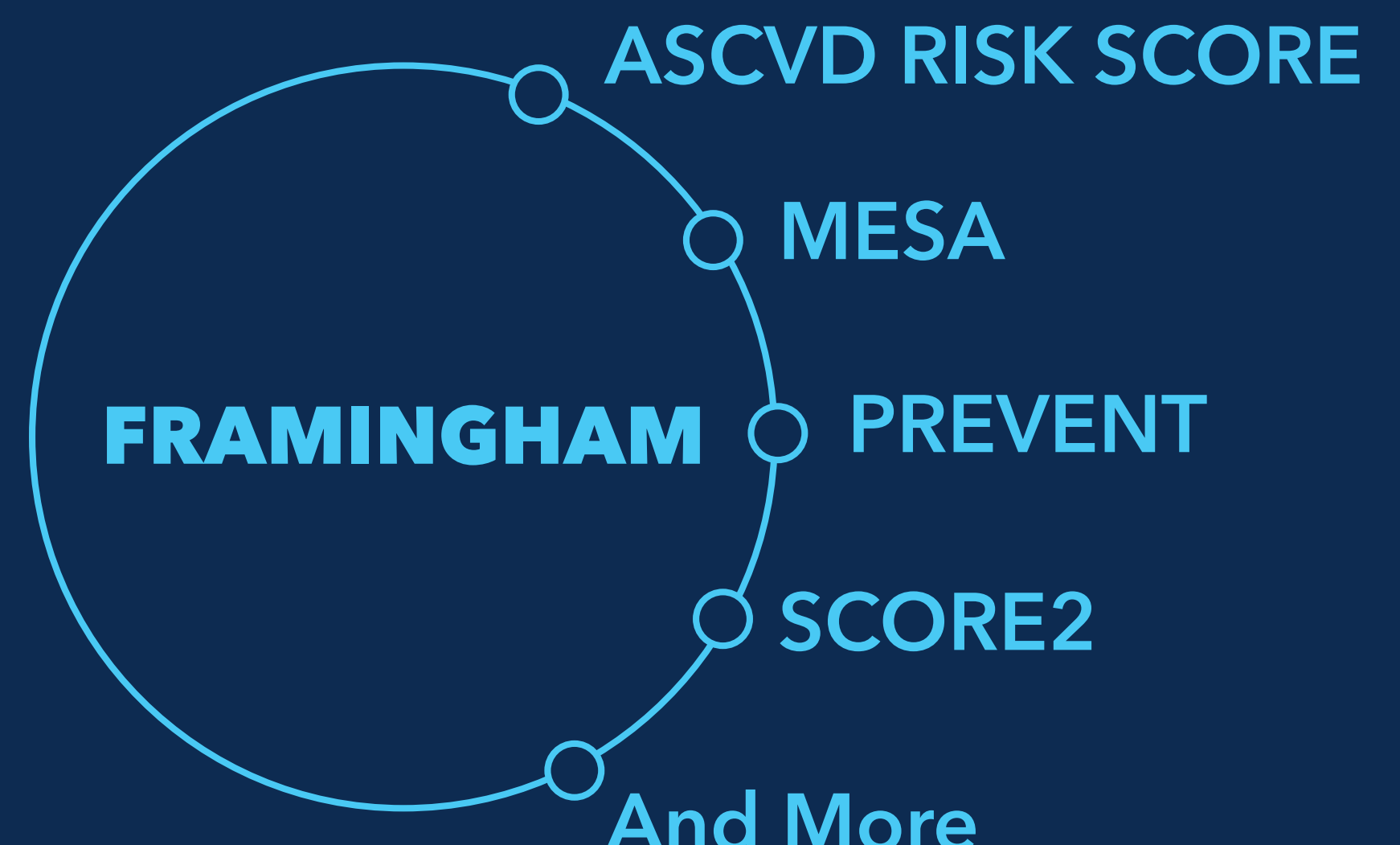


PREVENTION OF CV DISEASE



PREDICTING CV RISK



1948



Start of the Framingham Heart Study, one of the most important longitudinal cohort studies in preventive cardiology. Scan the QR code to read more about the history in *Cardiology*

1976

The Framingham Risk Score is the earliest widely used cardiovascular risk score. Since then, risk prediction algorithms have evolved to account for key risk factors and social determinants of health

2014

ACC and AHA launch ASCVD risk estimator mobile app



HIGH-THROUGHPUT DNA SEQUENCING

1977

Groundbreaking DNA sequencing methods are published, paving the way for the development of faster and more efficient high-throughput sequencing (HTS) technologies, polygenic risk scores and targeted cholesterol-lowering therapy developments like PCSK9 and apoC-III inhibitors

RNA INTERFERENCE

2006

Andrew Fire and Craig Mello win Nobel Prize for the discovery of RNA interference, paving the way for a therapeutic shift toward monoclonal antibodies and siRNA



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MANAGING HYPERTENSION

1896 Hypertension first recognized as a medical term with the invention of the cuff-based sphygmomanometer by Riva-Rocci

1950s and 1960s

Pivotal studies show incremental increases in systolic and diastolic blood pressures lead to greater risk of mortality

Well-tolerated oral diuretics and calcium channel blockers emerge on the scene, representing turning points in hypertensive care

1970s National High Blood Pressure Education Program launched in US to raise public awareness and provide guidance to clinicians

1980s-2000s

New classes of hypertension drugs are developed, including angiotensin receptor blockers and renin inhibitors

1994 NHLBI launches ALLHAT trial, the largest trial to compare blood pressure-lowering drugs

2016 Landmark SPRINT trial demonstrates that blood pressure of <120 mm Hg resulted in significantly fewer CV events and lower mortality

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NEW DISCOVERIES IN LDL TREATMENTS

1963 Discovery of Lipoprotein(a) and its association with both atherosclerosis and atherothrombosis.

1960 Pathway mapped outlining cholesterol synthesis in the body

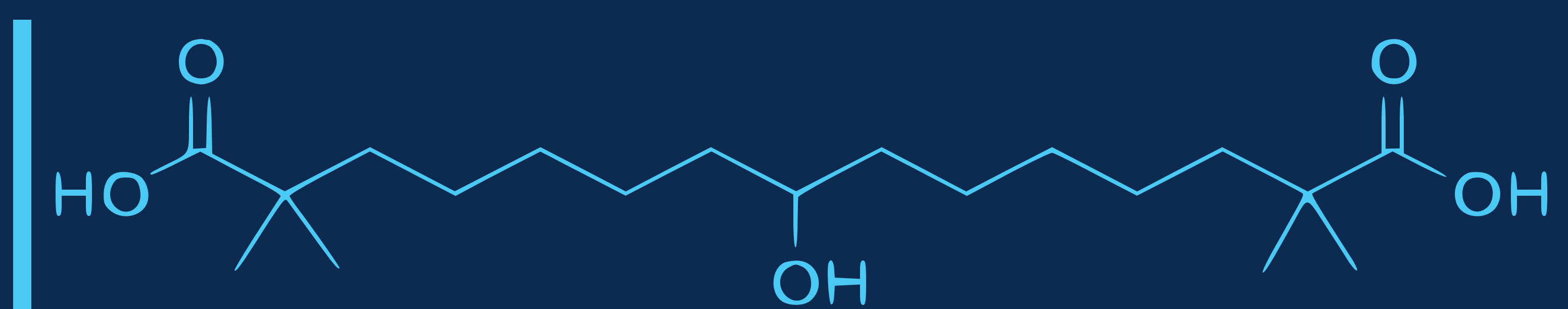
1973 First cholesterol-lowering compound discovered by Akira Endo, leading to the creation of statins

1987 FDA approves the first statin for use in the US

2000 Dallas Heart Study begins, paving the way for the discovery of PCSK9 inhibitors

2015 The first PCSK9 inhibitor is approved in the US as an adjunct to diet and maximally tolerated statin therapy for treatment of heterozygous familial hyperlipidemia or clinical atherosclerotic disease

2020 Bempedoic acid approved in the US for the treatment of hypercholesterolemia



2021 Inclisiran, an siRNA targeting PCSK9, receives FDA approval as an adjunct to diet and statin therapy in adults with heterozygous familial hypercholesterolemia

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THE OBESITY CHALLENGE

1954 First modern surgery performed, leading the way to improvement in both risk factor control and CV outcomes



1958 Scientist Ancel Keys, credited for highlighting the health benefits of the Mediterranean Diet, launches the landmark Seven Countries Study documenting the relationship between lifestyles, nutrition and CV disease. Today, studies of healthy, plant-based diets continue to show increased cardiovascular benefits compared with other diets



2018 The DURATION-1 study is the first to show the benefits of GLP-1 RAs in reducing obesity and cardiovascular risk in adults

Today Randomized trials are demonstrating that GLP-1 RAs may provide additional cardiovascular health benefits independent of weight loss. Scan the QR code for the JACC Obesity Trials Collection



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