

# **CELEBRATING 100 YEARS OF** INSULIN

### 1921

#### Insulin was discovered

Dr. Frederick Banting and Charles Best, discovered insulin when they reversed diabetes that had been induced in doos with an extract from the pancreatic islet cells of healthy dogs

#### 1922

Leonard Thompson received an insulin injection



14-year old Leonard Thompson is the first person with type 1 diabetes to receive an insulin injection

## 1923

TO LA

Commercial launch of insulin

The world's first commercial insulin product became available for the treatment of diabetes and mass production began

### 1940's

Development of the "dip-and-read" urine test

1945

1955

Tablets for testing urine glucose without heating launched

1949 The creation of the standardized insulin syringe



Invention of the Palmer injector

1955 Insulin becomes the first protein to be fully sequenced

# 1963

Insulin becomes the first human protein to be chemically synthesized

1963 The first insulin pump is designed



1966 First pancreas transplant

1970 Portable blood glucose meter is introduced

> 1974 Continuous glucose monitoring and insulin infusion available

1976 Wearable insulin pumps manufactured.

1977 HbA1c Test Developed



# 1925

Home testing for sugar in urine was introduced

1930's Slower acting insulins were developed

1936

Mechanism to prolong insulin duration discovered

1956 Oral medications became available

959 Development of a reliable radioimmunoassay for direct measurement of circulating insulin levels, enabling new research into insulindeficient versus insulin-insensitive diabetes

1960 Glucagon introduced to treat hypoglycemia

1978 Synthetic insulin produced 1978

Insulin is the first human protein to be manufactured through biotechnology

1979 Portable insulin pumps trialed



# 1990's

1991

Significant advances in external insulin pump technology



World Diabetes Day launched

In response to the rapid rise of diabetes around the world, the World Health Organization launched on November 14, the birthday of Frederick Banting

1981 The first microprocessor-controlled insulin pump is introduced

1982 Human Insulin Produced by Bacteria Approved

1982 Introduction of human insulin derived from rDNA

1985 First insulin injection pen delivery system is introduced to consumers



### 2005

Patient-use of Continuous Glucose Monitoring (CGM) is approved

# 2008

1<sup>st</sup> International Conference on Advanced Technologies & Treatments for Diabetes (ATTD), Prague, Czech Republic

# 2015

First algorithm for automated insulin delivery system was approved by the CE

2016 FDA approves first Artificial Pancreas System

# 2018-2022

Extensive studies are being held throughout the world to upgrade the artificial pancreas and develop automated clinical decision support systems (advisors)



15<sup>th</sup> Anniversary of the International **Conference on Advanced Technologies** & Treatments for Diabetes (ATTD 2022), Barcelona & Online



# 1993 Instant glucose tablets are introduced

1996 Fast-acting insulin is introduced

1999



Physician-use continuous glucose monitoring

