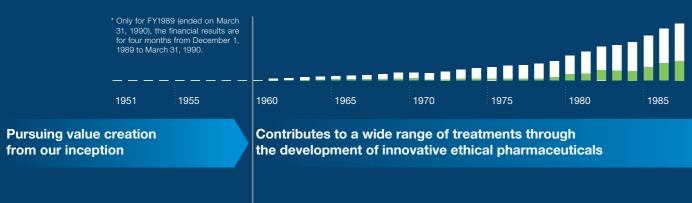


# **Continually taking on the challenge** of creating innovative drugs

"We believe there are new drugs that only we can develop." Since our foundation in 1717, we have made progress for more than 300 years in our commitment to relieving the pain of patients and focus on their health improvement. We still continue to unite our efforts in addressing the challenge of discovering our own innovative drugs.



### 1717 Started business

Ichibei Fushimiya I founded the apothecary Fushimiya Ichibei Shoten in Doshomachi, Osaka.

### 1934 Transformed modern management

Ichibei Ono VIII changed the name of the business from Fushimiya Ichibei, which had been used since its foundation, to Ono Ichibei Shoten (Ono-Ichi) and reorganized operations to modernize management.

## 1947 Launched drug manufacturing

After its establishment, ONO launched the manufacturing of drugs.

### $1960^{\prime}\mathrm{S}$ Transformed to an ethical drug manufacturer

In our pursuit of whether it would be possible to transition from OTC drugs to ethical drugs, we launched various efforts, including the development of prostaglandins (PG). In 1968, we opened the Central Research Institute (Current the Minase Research Institute) (current Minase Research Institute) in order to fully launch our work to creation of ethical druas.

### 1970's–1980's

### Successfully launched new innovative new drugs on the market

Starting with joint research with three PhDs, Sune K. Bergström, Bengt Samuelsson, and John R. Vane, who won the Nobel Prize in Physiology and Medicine in 1982, we quickly promoted industry-academia collaboration at a time when open innovation was not yet a word.





PROSTANDIN Injection



### Became the world's first company to succeed 1968 World's First in the total chemical synthesis of prostaglandins

PROSTARMON-F

Injection (1974)

Prostaglandins (PGs) are called dream substances with enormous potential. After becoming the first **66** To put it exaggeratedly, company to succeed in the total chemical synthesis of PGs, we have not only poured our numerous resources, including researchers, into PG-related drug discovery research but also actively undertaken joint research and joint development with both academics and pharmaceutical companies in Japan and overseas. As a result, we successfully developed and launched a drug for the gynecology field in 1974 that was the world's first PG-related formulation. Since then we have broadened the fields of contributions to cardiovascular diseases, gastrointestinal diseases, and respiratory disease, resulting in twelve PG-related drugs that have been launched.

I feel like Columbus sailing on the Santa Maria westward across the Atlantic Ocean in search of the New World

Excerpted from Yuzo Ono's remarks at the first PG Study Meeting

### 1990's-

**ONON** Capsules

(1995)

(2009)

1990

In addition to in-house drug discovery. strengthen licensing activities

1995

Alleviate More People's Pain

Spreading drugs to



2000

ONOACT for Intravenous Infusion (2002)



World's First



STAYBLA Tablets

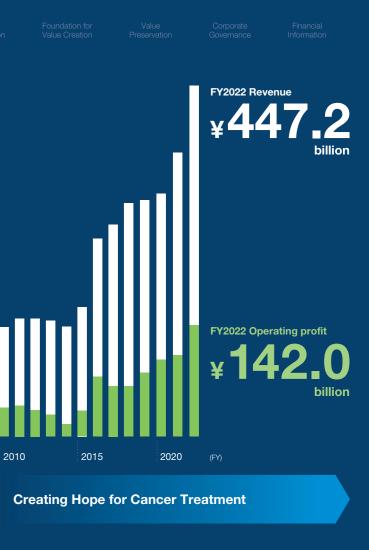
(2007)

2005

**RECALBON** Tablets GLACTIV Tablets (2009)



Traditionally, there have been three core cancer treatments-that is, surgery, chemotherapy, and radiation therapy. With a mechanism to increase the body's ability to attack cancer cells by reviving the power of the immune system that people naturally have, OPDIVO is revolutionary because if offers a treatment approach based on a novel approach. We are new expanding indicated tumors for cancer immunotherapy, creating a fourth core treatment. After gaining manufacturing and marketing approval as a treatment for melanoma, it has been approved worldwide for eleven types of cancer, including non-small cell lung cancer, renal cell carcinoma, and gastric cancer to date. We are now continuing clinical trials to further adding indicated tumors.



### 2010'S Full-scale entry into the oncology field

Our more than twenty-year challenge since discovering PD-1 (protein) in 1992 bore fruit, and we were able to launch sales of the anti-PD-1 antibody OPDIVO in 2014.



### Launched the world's first anti-PD-1 antibody that provides new options for treating cancer: OPDIVO