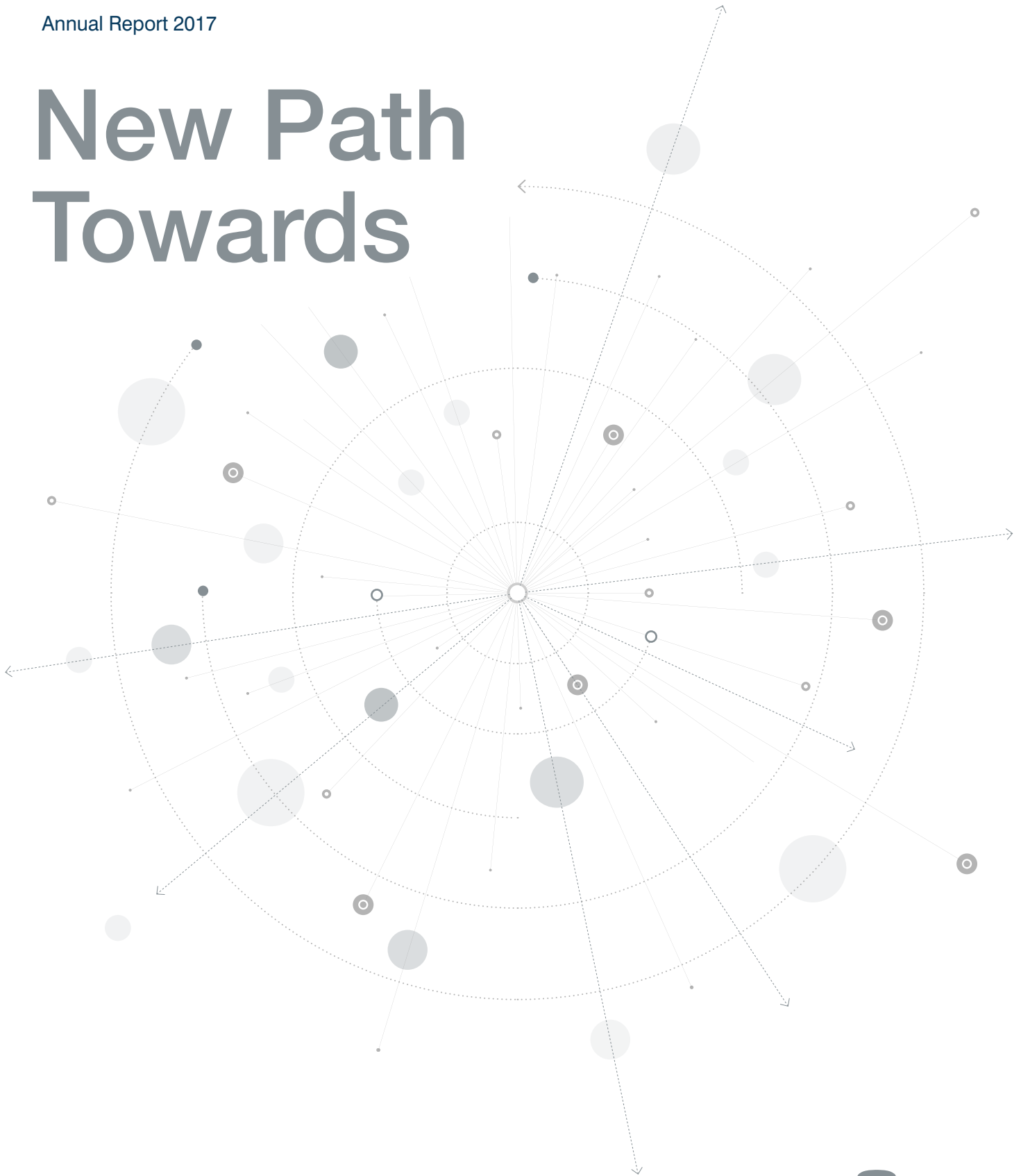


Annual Report 2017

# New Path Towards



DONG-A SOCIO GROUP

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### Reporting Period

This report presents quantitative data about the performance of Dong-A Socio Group during the 2017 calendar year. However, the Group's qualitative activities mentioned in the report, including achievements mentioned in the 'Group Highlights' and the composition of the BOD, include developments recorded until the end of March 2018.

### Formats

This annual report is available in the following formats:



Print



Interactive PDF

### Compass

This annual report is also created in interactive PDF format:



Reference page



Website link



This report is available in PDF format which can be downloaded at [www.donga.co.kr](http://www.donga.co.kr)

## Letter to Shareholders

In 2017, we took further steps towards realizing our vision to be a global healthcare player. It was a challenging year. However, we continued to make progress, drive value creation and strengthen our position in the global healthcare market.



*To our shareholders*

Dong-A Socio Group celebrated its 85th anniversary in 2017, and began a new challenge to achieve sustainable growth of the Group and to support the health and happiness of mankind. We announced our new vision, committing to 'be a global healthcare player by establishing distinctive competencies in each business area'. All members of the Group have united their strengths to lay the foundations for future growth based on our core values – 'pursue innovation', 'lead change', 'trust others', and 'thrive together'.

As a result, Dong-A Socio Group made significant achievements even in a difficult and uncertain business environment. In particular, Dong-A ST signed a joint research agreement with AstraZeneca, a global pharmaceutical company, to develop new Immuno-Oncology drug, thereby showing our outstanding strength in R&D once again. The company also signed a license-out agreement with NeuroBo Pharmaceuticals of the U.S. for DA-9801, an in-house developed botanical drug for diabetic neuropathy. Dong-A ST then successfully completed the signing of an acquisition agreement for DA-9803, an in-house botanical drug for the treatment of degenerative neuronal disease such as Alzheimer's disease, to transfer the right of DA-9803. Backed by these achievement, Dong-A Socio Group has built further solid momentum for our global growth.

We have been also preparing for a new way forward through ethical management and social responsibility. Dong-A ST became the first Korean pharmaceutical company to form a Compliance Team as far back as 2010, and it adopted an 'Independent Compliance Advisor' system for the first time in Korea's pharmaceutical industry, and thus stayed one step ahead than its peers. In addition, the company began the adoption of ISO 37001, an international certification for anti-corruption management, thereby putting into action its determination to implement stronger ethical management.

Furthermore, we have continued to create social values with an aim to change the world for the better. 2017 marked the 20th anniversary of 'Dong-A Pharmaceutical's Tour Korea for College Students'. It has become an iconic event for young people who are willing to take on challenges and help others, and 2,857 people have walked a cumulative distance of 11,458 kilometers over the last 20 years. This is part of Dong-A Socio Group's commitment to paving the way to grow together with society and future generations.

Over the past year, Dong-A Socio Group has strived to gain a competitive edge by looking for ways to grow further while fulfilling our social responsibilities based on the new 'Vision 2025'. In 2018, we will put our efforts into the following strategic tasks, with a focus on our core values – 'pursue innovation', 'lead change', 'trust others' and 'thrive together' – so that we make major strides forward in realizing our vision.

**First, we will accelerate the pace of innovation through cooperation.**

We will go beyond creating synergy between subsidiaries of Dong-A Socio Group, and thus boosting our R&D capabilities by working in partnership with global pharmaceutical companies, as well as through the open innovation with universities and research institutes in Korea and abroad. Also, there will be further R&D investment with a goal to develop innovative new drugs in near future.

**Second, we will formulate business strategies to stay agile.**

We will concentrate on what we are good at, so that we can lead trends in the rapidly-changing markets. We will continually do our utmost to generate new ideas, and connect those ideas with changing customer requirements in order to deliver stronger, sustainable growth.

**Third, we will strengthen stakeholder trust through better compliance.**

We will complete receiving ISO 37001 certification as part of our profound commitment to transparent and fair business conduct, reflecting our high ethical standards and mindset. By sharing the culture of compliance throughout Dong-A Socio Group, we will earn greater trust from our customers, stakeholders and society as a whole.

**Fourth, we will grow together with all of our stakeholders.**

Our mission as a pharmaceutical company is to take on challenges that will support the health and happiness of mankind, which has never changed even in an era of rapid change. The health of mankind and society is our top priority, and so we will continue to put people above profits, thereby opening a door to a better future.

The strength of Dong-A Socio Group lies in the experience and know-how we have built over the last 85 years. I once again thank all of our stakeholders for standing by our side throughout our 85-year journey of change and innovation. We will not take shortcuts but a right path, so that we can continue our journey as a sustainable company that works in partnership with our customers, shareholders, and society. I ask for your continuing support and interest in our races towards a brighter future.

Thank you.

**Jung-Seok Kang**  
Chairman, Dong-A Socio Group

# Group Overview

In March 2013, Dong-A Socio Group demerged the former Dong-A Pharmaceutical to form Dong-A Socio Holdings, the holding company, Dong-A ST, a company specializing in ethical (ETC) drugs, and Dong-A Pharmaceutical, a company specializing in over-the-counter (OTC) drugs, with an aim to move to a holding company structure. The existing Dong-A Socio Holdings entity completed a change of listing on the Korea Exchange (KRX) securities market on April 8th, 2013. Dong-A ST, the company created as a result of the equity spin-off, was re-listed. Approval was received from the Fair Trade Commission on the change to a holding company structure in December 2014. ST Pharm, a company specializing in new drug active pharmaceutical ingredients (APIs), was listed on KOSDAQ in June 2016. Dong-A Socio Holdings has thus satisfied all the holding company requirements stipulated in the Fair Trade Act, and has completed the change to a holding company structure. As of the end of 2017, there are 26 entities in Dong-A Socio Group. Under the leadership of Dong-A Socio Holdings, the holding company, Dong-A Socio Group is striving to achieve sustainable growth and to become a global company.

## Dong-A Socio Holdings

As the holding company of Dong-A Socio Group, Dong-A Socio Holdings defines the overall vision and formulates the strategic goals at the group level, and draws up the Group's human resource and investment plans based on those strategic goals. It is leading the phased business expansion of the Group by moving beyond the previous focus on pharmaceutical drugs to include medical services and other new businesses.



## Dong-A ST

Dong-A ST operates ETC drug, overseas, and medical equipment & diagnostics businesses. As the R&D hub of Dong-A Socio Group, Dong-A ST puts considerable efforts on developing global new drugs, supported by a top-level research infrastructure which includes cutting-edge research centers and highly-skilled research experts.



## Dong-A Pharmaceutical

Dong-A Pharmaceutical's main businesses include OTC drugs which can be bought without a prescription, quasi-drugs and health functional foods.

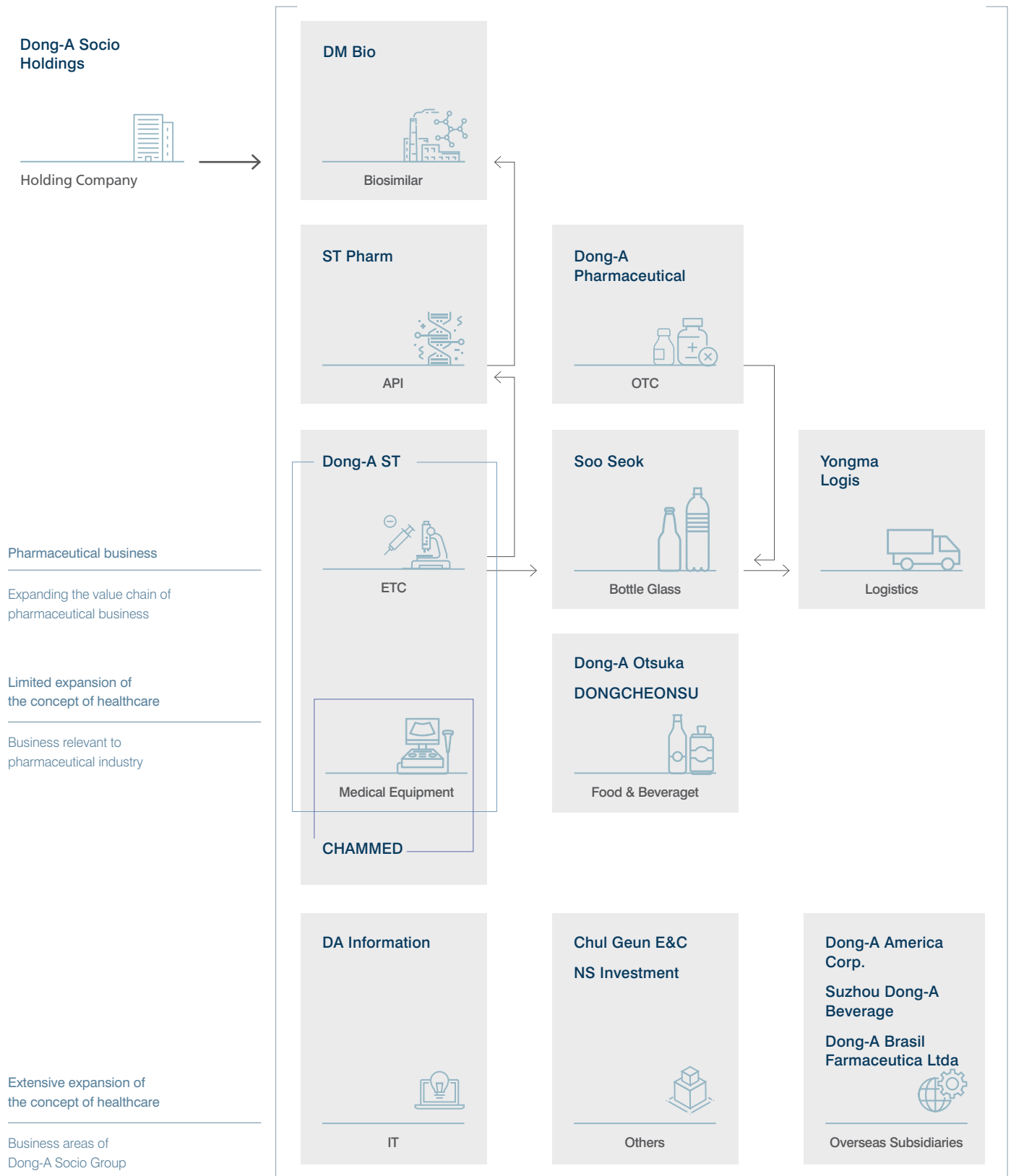


## ST Pharm

ST Pharm is a contract development and manufacturing organization (CDMO) with expertise in new drug APIs and generic APIs. The company is also an Asia's leading oligonucleotide CDMO in nucleic acid-based therapeutics API which is a new form of treatment.



## GROUP ORGANIZATION & BUSINESS AREA



# Milestones

1932  
Choong-Hee Kang's Wholesaler, a pharmaceutical and hygiene material wholesaler, began operations in Joonghak-dong, Jongro-gu, Seoul, Korea

1947  
Pharmaceutical business began full operation

1949  
Changed name to Dong-A Pharmaceutical Corporation

1957  
Constructed modern facility, headquartered in Yongdu-dong, Dongdaemun-gu, Seoul, Korea

Manufactured antibiotics, such as Penicillin®

## 1932-1958

### The Prelude of Dong-A

---

1977  
Established a research center in Yongdu-dong, Dongdaemun-gu, Seoul, Korea

1979  
Developed the world's third antibiotics, Talampicillin®

1988  
Released AIDSIA®, Korea's first ever first-generation AIDS diagnostic reagent

Constructed the industry's first Korea Good Laboratory Practice (KGLP)-compliant research center in Sanggal, Gyeonggi, Korea

1991  
Received the IR52 Jang Young Shil Award for AIDSIA®

## 1975-1992

### Establishment of Growth Foundation

---

2001  
Received the Excellent Shareholder Focused Management Award

2002  
Released Stillen®, Dong-A's first in-house developed original drug and a phytomedicine for gastritis

2005  
Released Zydena®, Dong-A's second in-house developed original drug and an erectile dysfunction treatment

2006  
Released Gonadopin®, a first-generation biomedicine and infertility treatment

2007  
Licensed out Sivextro®, an oxazolidinone class antibiotics, to Trius Therapeutics of the US (currently Merck & Co.) for the worldwide territory except Korea

## 2000-2007

### Becoming an R&D-centered Pharmaceutical Company

---

## Modernization of Pharmaceutical Business

### 1959-1974

1961  
Began manufacturing Bacchus®

1964  
Bacchus® ranked first in domestic tonic market

1967  
Ranked first in sales among domestic pharmaceutical companies

1970  
Initial Public Offering (IPO)

## Overcoming Obstacles by Working Together

### 1993-1999

1993  
Developed Growthropin®, a first-generation biomedicine and human growth hormone

1994  
Released Interferon-alfa™, a first-generation biomedicine and multiple myeloma treatment

Developed the world's first simultaneous diagnostic reagent for AIDS and hepatitis C

1995  
Bacchus® became Korea's first single pharmaceutical product to achieve sales of KRW 100 billion

1997  
Became the first company in Korea to develop a tuberculosis treatment, Closerin®

1999  
Released Leucostim®, a first-generation biomedicine and neutropenia treatment, and Eporon®, a renal anemia treatment

## Challenging to Become a Global Company

### 2008-2012

2010  
Entered into a comprehensive business agreement with GlaxoSmithKline (GSK) of the UK

Acquired Samchully Pharmaceutical specializing in API and changed name to ST Pharm

2011  
Released Motilitone®, Dong-A's third in-house developed original drug and a phytomedicine for functional dyspepsia

Signed a comprehensive business alliance contract on biosimilars with Meiji Seika Pharma of Japan

2012  
Began the construction of the DM Bio Plant in Songdo, Korea in conjunction with Meiji Seika Pharma

80th anniversary of the foundation of Dong-A

2013

#### **Dong-A Socio Holdings**

Demerged into three new companies – Dong-A Socio Holdings (the renamed existing entity), Dong-A ST (a stock spinoff entity), and Dong-A Pharmaceutical (an asset split-off entity)

Established a Korea's first dementia research center

#### **Dong-A ST**

Exports exceed KRW 100 billion

2013-2017

On the Wings of  
a New Era

2015

#### **Dong-A Socio Holdings**

Demerged the Biosimilar Business Department and established DM Bio

#### **Dong-A ST**

Obtained European Commission (EC) approval and launched Sivextro® (Tedizolid) in European countries

Received Korean MFDS approval for Sivextro®

Licensed out Evogliptin to Eurofarma Laboratórios of Brazil for 17 countries in Latin America

Licensed out Evogliptin to GEROPHARM of Russia for the Russian, Ukrainian and Kazakhstan markets

2017

#### **Dong-A Socio Holdings**

Announced Dong-A Socio Group's new vision system 'Vision 2025'

Dong-A Socio Holdings and DM Bio signed an MOU with Alteogen on cooperation for biopharmaceutical production and research

Signed an MOU with the Vietnamese government on supplying contraceptives

Acquired CHAMMED, a medical device company

2014

#### **Dong-A Socio Holdings**

Completed the construction of the DM Bio Plant

Received holding company approval from the Fair Trade Commission

#### **Dong-A ST**

Obtained US FDA approval and launched Sivextro® (Tedizolid), an oxazolidinone class antibiotic, in the US by Cubist (currently Merck & Co.)

Signed a strategic alliance contract with Combiphar of Indonesia

Secured Korean Ministry of Food and Drug Safety (MFDS) approval for Dulastin®, DA-3031 (PEG-G-CSF), a long-acting biopharmaceutical drug for neutropenia

2016

#### **Dong-A Socio Holdings**

IPO of ST Pharm on the Korean Securities Dealers Automated Quotations (KOSDAQ)

#### **Dong-A ST**

Released Stillen® 2X, an Incrementally Modified Drug (IMD) of Stillen®

Released Suganon® (Evogliptin) and Sugamet®-XR (combination product of Evogliptin and Metformin), Dong-A's fifth in-house developed original drug and a type 2 diabetes treatment

Made a collaboration agreement with Beactica of Sweden to develop new cancer treatments

Licensed out MerTK inhibitors, a cancer immunotherapy pipeline, to AbbVie Biotechnology for the worldwide territory except Korea

#### **Dong-A ST**

Signed an agreement with Yonsei University Health System on joint research for development of a treatment for genetic hearing loss

Signed an agreement with CureBio on joint research on an alopecia treatment

Dong-A ST and Dong-A Socio Holdings signed an MOU on developing a new antibody drug with ABL Bio

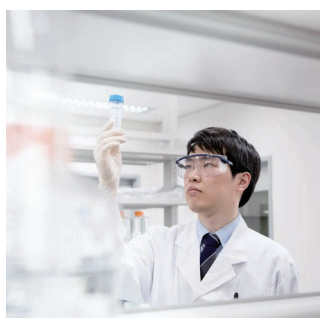
Established a strategic business alliance on biopharmaceuticals with Rooyan Darou of Iran

# Vision 2025

## OUR STRATEGY

Dong-A Socio Group will strengthen our business capabilities, and expand business areas and global outreach, with a goal to realize our vision. We will secure differentiated competitiveness across all of our established businesses, where we have focused on pharmaceutical business. Furthermore, we will expand business areas in order to satisfy increasingly complex and diverse market and customer requirements. We are accelerating efforts to expand overseas business, in particular, thus overcome the saturated domestic market and develop new growth drivers.

## OUR VALUES (Dong-A Spirit)



### Pursue Innovation

We will lead the dynamics of the market by creating distinctive value through a broader perspective and a unique mindset. We will not be afraid of challenge or failure while pursuing innovation, and will encourage colleagues to accept challenges.



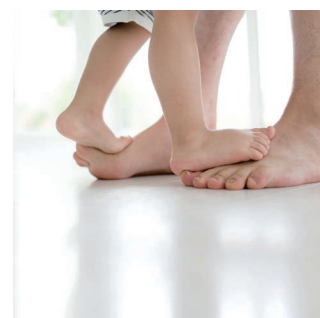
### Lead Change

We will grasp new opportunities in the global healthcare market in this era of rapid change driven by an ageing society, personal consumption, uncertain economic growth, and technological convergence, with an ultimate goal to lead the change.



### Trust Others

Based on the belief that trust is a foundation for greater innovation, we will build a strong relationship of trust and a win-win relationship with all of our stakeholders by communicating actively and cooperating seamlessly with them.



### Thrive Together

We will faithfully fulfill our social responsibilities as a healthcare company which contributes to better lives, based on our responsibility and capability. This will enhance our corporate value, and more importantly, it will form the basis for sustainable growth for ourselves and society as a whole.

MISSION

Continuous Challenge to Pursue Health and Happiness for Humanity

VISION

To Be a Global Healthcare Player by Establishing Distinctive Competencies in Each Business Area

CORE VALUES

(Dong-A Spirit)



PURSUE INNOVATION

Start from small innovations in a new perspective



LEAD CHANGE

Drive change by reading the trend



TRUST OTHERS

Build trust to generate greater synergy



THRIVE TOGETHER

Grow with employees, customers and society

DIRECTIONS

Constant innovation	Act promptly	Create synergy	Social responsibilities
New perspectives	Never stop changing	Win-win	Sharing and contributions
A spirit of challenge	Open-minded	Proactive communication	Self-development
Sincerity and tenacity	Lead by example	Act with consistency	Sense of responsibility

D Style

# Pursue Innovation

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# Lead Change





### Dong-A ST begins joint research with AstraZeneca to develop an innovative Immuno-Oncology Drug


Leveraging its capabilities in the immuno-Oncology field, Dong-A ST signed a joint research agreement with AstraZeneca, a global biopharmaceutical company, in January 2018. Under the agreement, Dong-A will collaborate with AstraZeneca on up to three oncology research projects with the aim of generating lead compounds. With the R&D capability of Dong-A ST and the expertise in developing anti-cancer drugs of AstraZeneca, both companies anticipate great synergy to generate compounds. Dong-A ST will do its utmost to develop new medications using the most efficient methods.

 Refer to page 57




### Dong-A ST cooperates with NeuroBo Pharmaceuticals for the development of botanical drugs

Dong-A ST's R&D capabilities for botanical drugs have been recognized in the global market. In January 2018, Dong-A ST signed a license-out agreement with the US-based NeuroBo Pharmaceuticals for the global development and commercialization of DA-9801, a botanical drug for the treatment of diabetic neuropathy developed in-house by Dong-A ST. In addition, Dong-A ST also signed an acquisition agreement for DA-9803, an in-house botanical drug for the treatment of degenerative neuronal disease such as Alzheimer's disease, to transfer the right of DA-9803 to NeuroBo. Dong-A ST is expected to bolster its presence in the global botanical drug space through NeuroBo's successful development of these botanical drugs.

 Refer to page 57

### Dong-A ST accelerates its entry into the Indonesian market

Dong-A ST has established a bridgehead in the rapidly-growing Indonesian market. Dong-a ST formed a strategic alliance with Combiphar, an Indonesian pharmaceutical company, in 2014. As part of the alliance, in early 2018, Dong-A ST completed the construction of a biopharmaceutical production plant that can manufacture an annual 4.7 million pre-filled syringes, and the plant is expected to reach full operational capability by 2020. Dong-A ST will do its best in order to ensure successful entry into the Indonesian market by working in close partnership with Combiphar.

 Refer to page 55





Trust  
Others

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Thrive  
Together



### Dong-A Socio Holdings is officially accredited as a family-friendly company

We are committed to maintaining a healthy work-life balance for our employees, and this has led to Dong-A Socio Holdings being chosen as a '2017 Accredited Family-Friendly Company' by the Ministry of Gender Equality and Family. In particular, Dong-A Socio Holdings received high scores in categories relating to the commitment of top management, corporate support for childbirth and child-raising, and the establishment of a family-friendly culture at work. Dong-A Socio Holdings puts continuous efforts into improving the work environment by giving top priority to employee happiness. These efforts also include various family-friendly programs and welfare benefits for employees and their families.

Refer to page 23

### The 20th anniversary of Dong-A Pharmaceutical's Tour Korea for College Students

Dong-A Pharmaceutical's Tour Korea for College Students, the originator of walk-across-the-country programs in Korea, celebrated its 20th tour in 2017. Launched in 1998, the event has taken place every year since then and has been winning positive responses from the young people enjoying challenge, as reflected in the average competition ratio of 90:1. The 20th tour was completed in July 2017, and the completion ceremony was attended by approximately 1,600 participants of previous tours and their family members.

Refer to page 24



### Dong-A ST wins certification for its consumer-centered management



In 2017, Dong-A ST received the Consumer Centered Management (CCM) certification, accredited by the Fair Trade Commission and organized by the Korea Consumer Agency. Dong-A ST has appointed the CEO as its Chief Customer Officer (CCO) and has put the Customer Satisfaction Team under the direct control of the CEO, in its efforts to promote consumer rights and interests. The company undertakes various CCM activities, including establishing a CCM Steering Committee, setting up a program to improve employee awareness and capabilities in CCM, as well as creating a CCM homepage and a Voice of the Customer (VOC) response system. Dong-A ST is also fully committed to ethical management in order to strengthen customer trust.

# Key Figures

## Dong-A Socio Holdings

(Unit: KRW billion)

	Separate Figure	Consolidated Figure
<b>Statements of Financial Position</b>		
Total assets	899.3	1,459.4
Total liabilities	262.8	545.2
Total shareholders' equity	636.5	914.2
<b>Statements of Income</b>		
Operating revenue	82.7	690.3
Operating expenses	53.4	636.9
Operating profit	29.3	53.4
Income before income tax	24.3	47.1
Net profit	22.0	32.5

## Dong-A ST

(Unit: KRW billion)

	Separate Figure	Consolidated Figure
<b>Statements of Financial Position</b>		
Total assets	899.8	899.7
Total liabilities	318.5	318.5
Total shareholders' equity	581.3	581.2
<b>Statements of Income</b>		
Sales	554.8	555.0
Cost of goods sold	275.1	275.1
SG&A expenses	176.9	177.4
R&D expense	78.7	78.7
Operating profit	24.1	23.9
Income before income tax	(8.2)	(8.3)
Net profit	(5.2)	(5.4)

# CEOs of Major Entities of Dong-A Socio Group



Dong-A Socio Holdings

Jong-Hyeon Han  
CEO & President



Dong-A ST

Dae-Sik Eom  
CEO & Chairman



Dong-A Pharmaceutical

Ho-Jin Choi  
CEO & President



ST Pharm

Kyung-Jin Kim  
CEO & President

\* As of March 27, 2018

# Corporate Governance

## BOD Composition

Dong-A Socio Holdings, Dong-A ST and Dong-A Pharmaceutical each has a separate expert and independent Board of Directors (BOD), including outside directors with expertise in specific relevant areas. At Dong-A Socio Holdings and Dong-A ST, the outside directors comprise the majority of the BOD, thereby enhancing management transparency. In addition, an outside director is appointed to chair the BOD, separate from the CEO, in order to ensure that the BOD supervises top management in the performance of their duties effectively and independently.

Committees under the BODs of Dong-A Socio Holdings and Dong-A ST are delegated to perform certain BOD functions, as stipulated by relevant laws and the Articles of Association. They also monitor the BOD and provide advice on important business matters. Each committee consists of a majority of outside directors with professional knowledge in their respective fields, and contributes to the increased expertise and independence of the BOD.



	Dong-A Socio Holdings	Dong-A ST	Dong-A Pharmaceutical
<b>Composition</b>	3 internal directors and 4 outside directors	3 internal directors and 4 outside directors	2 internal directors, 2 outside directors, and 2 affiliated directors
<b>Portion of outside directors</b>	4/7	4/7	2/6

\* As of March 2018

Committee	Composition	Object and Authority
<b>Audit Committee</b>	3 outside directors	<ul style="list-style-type: none"> <li>Object: To strengthen independency and specialty of audit organization</li> <li>Authority: To appoint director, auditor of subsidiaries and outside auditor</li> </ul>
<b>Evaluation &amp; Compensation Committee</b>	3 outside directors	<ul style="list-style-type: none"> <li>Object: To secure transparency and be objective in deciding compensation for management</li> <li>Authority: To review processes of evaluating performance of the management, compensation plan and execution</li> </ul>
<b>Committee for Recommending Candidates for Outside Directors</b>	1 internal director, 2 outside directors	<ul style="list-style-type: none"> <li>Object: To strengthen BOD function and management transparency</li> <li>Authority: To Recommend candidates for outside director</li> </ul>

\* As of March 2018

## BOD Operations

The Boards hold regular meetings, and decide on matters set forth by relevant laws and the Articles of Association and major business matters. If required, the Boards also hold extraordinary meetings. Items discussed by the BOD of Dong-A Socio Holdings in 2017 included the 103rd issuance of bonds with warrants, approval of a plan to improve management transparency, the creation of a Committee for Recommending Candidates for Outside Directors, and the acquisition of CHAMMED shares. The BOD of Dong-A ST decided on issues including the approval of a plan to enhance management transparency, the creation of a Committee for Recommending Candidates for Outside Directors, 5th issuance of private placement bonds, and the adoption of an 'Independent Compliance Advisor' system.

	Dong-A Socio Holdings	Dong-A ST	Dong-A Pharmaceutical
<b>Activities</b>	16 meetings on 19 agenda	16 meetings on 22 agenda	9 meetings on 9 agenda
<b>Outside directors' participation rate</b>	100%	100%	100%

\* As of December 2017

# Board of Directors

## Dong-A Socio Holdings

### Inside Directors

#### Jong-Hyeon Han

(Current) CEO & President,  
Dong-A Socio Holdings  
CEO & President, M.I.Tech

#### Sung-Keun Park

(Current) Executive Director & CFO,  
Dong-A Socio Holdings  
Executive Director of Finance Team,  
Dong-A Socio Holdings

#### Min-Young Kim

(Current) Executive Director of Management &  
Planning Division, Dong-A Socio Holdings  
Executive Director of Management & Planning  
Division, Dong-A Pharmaceutical

### Outside Directors

#### Bong-Soon Cho

(Current) Professor at Graduate School of  
Business, Sogang University  
Senior Research Engineer at Shinhan Research  
Institute

#### Han-Sang Lee

(Current) Professor at the Department of  
Business, Korea University  
Assistant Professor at Business College of  
Oklahoma State University

#### Chang-Jin Moon

(Current) Professor at Department of Public  
Administration and Social Welfare, CHA University  
Assistant Minister of the Ministry of Health and  
Welfare

#### Dong-Chul Kim

(Current) Partner of Hyun Law  
Legal Counsel at Lee Kim & Partners

## Dong-A ST

### Inside Directors

#### Dae-Sik Eom

(Current) CEO & Chairman, Dong-A ST  
CEO & Chairman, Korea Otsuka Pharmaceutical

#### Dong-Hoon Lee

(Current) Vice President, Dong-A ST  
CEO & Vice President, Dong-A Socio Holdings

#### Tae-Young Yoon

(Current) Head of Research Center, Dong-A ST  
Head of Innovative Drug Discovery Research  
Laboratories, Dong-A Socio Holdings

### Outside Directors

#### Keun-Soo Kim

(Current) Professor at the Faculty of International  
Business, Gyunghee International College  
Research Fellow at the Korea Securities Institute

#### Byoung-Chang Woo

(Current) Professor at the Faculty of Law,  
Sookmyung Women's University  
Chairman of the Mediation Committee,  
Seoul Family Court

#### Jae-Sang Ryu

(Current) Department Chair of Department of  
Pharmacy, Ewha Womans University  
Researcher at Memorial Sloan-Kettering Cancer  
Center

#### Hee-Joo Choi

(Current) Senior Advisor of Yulchon LLC  
Head of Office for Population Policy, Ministry of  
Health & Welfare

## Dong-A Pharmaceutical

### Inside Directors

#### Ho-Jin Choi

(Current) CEO & President,  
Dong-A Pharmaceutical  
Executive Director Communication Department,  
Dong-A Pharmaceutical

#### Heung-Sig Kim

(Current) Executive Director of Sales,  
Dong-A Pharmaceutical  
Head of Honam Regional Branch,  
Dong-A pharmaceutical

### Outside Directors

#### Sang-Gyung Jun

(Current) Professor, Business Administration,  
Hanyang University  
Vice Chairman, Korean Finance Association

#### You-Jae Yi

(Current) Professor, Business Administration,  
Seoul National University  
Head of Institute of Management Research,  
SNU Business School

### Affiliated Directors

#### Jung-Seok Kang

(Current) Chairman, Dong-A Socio Group  
CEO & Vice Chairman, Dong-A Socio Holdings

#### Jong-Hyeon Han

(Current) CEO & President,  
Dong-A Socio Holdings  
CEO & President, M.I.Tech

### Auditor

#### Sam-Beom Choi

(Current) Auditor, Dong-A Pharmaceutical  
Director, Accounting Firm Doore

# Ethical Value

High standards of business ethics have been fundamental to Dong-A Socio Group since its founding. By acting with integrity, fairness and transparency, we inspire trust in our stakeholders.

## Building a Culture of Ethics

At Dong-A Socio Group, we understand that ethical management is essential to our sustainable growth, and we conduct ourselves accordingly. We have led development and innovation in the Korean pharmaceutical industry, and in order to go beyond a good company and become a great one, Dong-A Socio Group continuously reminds all employees of the standard mindset and behavior that they should demonstrate towards the Compliance Program (CP). We are also making group-wide efforts to fully establish ethical management as part of our unique corporate culture. To this end, we have set and shared CP operation regulations and code of conduct with all employees, and have drawn up CP training plans and systems to support the execution of ethical management. By spreading the culture of compliance, we create the foundation for sustainable growth and build strong, trusting relationships with our stakeholders.

## Promoting Compliance Program

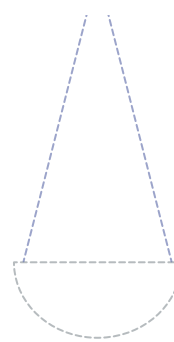
Dong-A Socio Group first adopted CP in September 2007, and we continue to train and monitor employees on a wide range of issues around compliance and fair trade. In 2017, we undertook various activities to further spread a compliance culture. These included the issuance of compliance manuals, such as 'Resisting Requests for Bribes and Solicitations in International Transactions', 'Compliance Manual for Third Party Business Partners', and 'CP VOCA'. We also produced an electronic version of the 2017-2018 Fair Trade Compliance Manual to help our employees observe all relevant domestic and overseas laws, and to build a culture of compliance. We also published the 'CP Magazine' in the Dong-A Socio webzine every month, operated the 'Dialogue with the Chief Compliance Officer' bulletin board, and helped employees share CP materials on the CP homepage.

In June and November 2017, the CEO & President, who is also the Chief Compliance Officer (CCO), delivered messages on ethics, and in September, every staff member at Dong-A ST pledged to observe all relevant laws and fair trade compliance programs. On November 22, 2017, the CCO hosted a ceremony to 'strengthen CP and announce the adoption of ISO 37001' with participation by around 580 staff members, committing themselves to strengthening compliance. The declaration from this ceremony was widely distributed, to meet the goal of Dong-A ST's Anti-Bribery Management Systems (ABMS) and to share the CCO's determination concerning the prevention of bribery and corruption. On December 11, 2017, Dong-A ST became the first pharmaceutical company in Korea to officially adopt the Independent Compliance Advisor system. In addition, the Dong-A ST Anti-bribery Audit Committee was established, as part of its relentless commitment toward ABMS and ethical management.



Number of employees dedicated to compliance (largest number in Korean pharmaceutical industry)

10



Hours of CP trainings provided in 2017 (number of participants x hours)

2,191

## Compliance Milestones

**2007**

Adopted Compliance Program (CP)

**2010**

Created the Compliance Team

Established CP Standards

**2011**

Built a CP website

Provided CP training to executives and staff members at headquarters

**2012**

Conducted CP training and monitoring at branches

Adopted Medical Advisor

**2013**

Produced and distributed a CP Newsletter

Built a CP electronic approval system

**2014**

Appointed the CEO and President of Dong-A ST as the compliance officer and expanded the CP-dedicated organization

Held a ceremony to declare stronger CP

All employees made a compliance pledge

**2015**

Held a ceremony to declare stronger CP

Received 'AA' rank on CP Evaluation Program from Fair Trade Commission

**2016**

Held the 2nd 'Proclamation Ceremony on Strengthening Compliance'

Published a manual on the 'Improper Solicitation and Graft Act' and the fair trade law; and announced standard operating procedure and guidelines

**2017**

Held the 3rd 'Proclamation Ceremony on Strengthening Compliance & ISO 37001 Certification'

Established a CP monitoring system to respond to the enactment of the so-called K-Sunshine Act

Established the Dong-A ST Anti-bribery Audit Committee (DAAC) to implement ABMS



Dong-A ST created the Compliance Team in 2010, for the first time among Korean pharmaceutical companies. The team was upgraded to the CP Management Department in 2014, which handles CP-related work and training throughout the company. In 2016, all employees received CP training on the enforcement of the 'Improper Solicitation and Graft Act', and awards were given to branches and teams with excellence in CP. In 2017, Dong-A ST selected 23 in-house judges for ISO 37001 certification to adopt the ABMS, and it also increased the number of dedicated CP personnel in its efforts to share a compliance culture. Furthermore, Dong-A ST strives to improve compliance throughout the pharmaceutical industry by exchanging CP teams with other pharmaceutical companies on a regular basis. The Deputy Compliance Officer of Dong-A ST serves as chair of the Sub-Committee on Compliance Management of the Korea Pharmaceutical and Bio-Pharma Manufacturers Association.

In 2018, we will do our utmost to embed compliance and ethical management as part of Dong-A Socio Group's corporate culture. Our efforts will include the adoption of ISO 37001 certification for a more transparent management system; the operation of a leading system to respond to the enactment of the so-called K-Sunshine Act<sup>1)</sup>; and the establishment of a compliance culture throughout the Group. Furthermore, we continue to promote the culture of CP throughout the entire pharmaceutical industry in Korea. We will thus fulfill our corporate social responsibilities and contribute to the health and well-being of humankind.

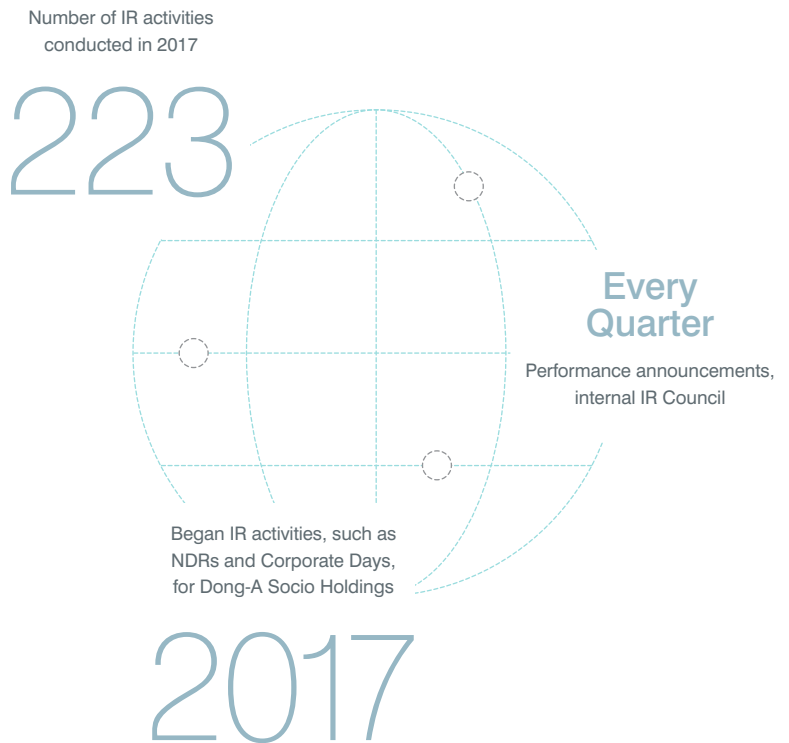
<sup>1)</sup> A law which requires pharmaceutical companies to keep records of all the payments to doctors and pharmacists

# Shareholder Value

Our long-term success depends on our ability to inspire trust in all our shareholders. We, therefore, engage in IR activities based on three core values – developing expertise, promoting efficient communications, and building investor trust.

## Promoting Active and Open IR Activities

Dong-A Socio Group has improved our IR activities following the transition to the holding company structure. In 2017, we undertook 223 IR activities, including company visits, domestic and overseas non-deal roadshows (NDRs), and overseas conferences. We participated in conferences in Hong Kong and Singapore, as well as global conferences in Korea, enabling us to interact effectively with overseas investors. We also continued to host conferences for analysts and institutional investors on quarterly basis followed by Dong-A ST's performance announcement and held regular NDRs for many years, as part of our commitment to building trust with our investors. Furthermore, we strengthened IR activities of the holding company, Dong-A Socio Holdings, in result we attended a total of four Corporate Days and NDRs additionally. Meanwhile, Dong-A Socio Group launched a business plan designed to enhance shareholder value in September 2017. This plan aims to improve governance, further increase the independence of the BOD and audit functions, and strengthen compliance. We will continue to strive to boost shareholder value through effective communications and by implementing transparent policies to improve shareholder returns.



## Building Efficient IR Communication Channels

Dong-A Socio Group has built several IR communications channels. Our 'IR Council' meets before every quarterly performance announcement and public notice, with members from key departments sharing information to investors on major issues. After performance announcements, top management and senior executives are rapidly informed about market and investor feedback. The IR Team works closely with the Public Relations (PR) Team to share accurate and timely information. We also participate in industry outlook seminars, conferences, and meetings with investor relations officers (IROs) from other companies, in order to enable quick responses to changes in the market environment, to identify industry trends and to build networks and exchange information.

Dong-A Socio Group delivers important and essential information of the Group both quickly and accurately via fair disclosure. IR materials are posted on our website for the transparent sharing of information. We are the only Korean pharmaceutical company to publish an annual report in English every year, and our 2016 Annual Report won the Platinum Award in the pharmaceuticals category at the League of American Communications Professional (LACP) Vision Awards, a global annual report contest, ranking 32nd among the 'Global Top 100 Annual Reports'. The Annual Report also won the Bronze Award at the International ARC Awards. In Korea, it received the Excellent Overseas PR Material Award at the Korea Business Communications Awards for the fourth consecutive year.



# HR Value

## Attracting and Retaining the Best Talent

As of the end of 2017, there were 2,565 employees at the four major entities of Dong-A Socio Group – 219 at Dong-A Socio Holdings, 1,508 at Dong-A ST, 729 at Dong-A Pharmaceutical, and 109 at DM Bio. We particularly focus on recruiting professionals, including pharmacists, lawyers and patent agents, so that there are 138 pharmacists, accounting for 5.4% of total personnel. There are 328 R&D personnel, 12.8% of the total, and of these, 74.1% hold a master's or doctorate degree. Furthermore, we continue to recruit global talent, and there are also 98 personnel handling overseas business, accounting for 3.8% of total personnel at the four companies.

In 2017, Dong-A Socio Group became the first Korean pharmaceutical company to adopt 'blind recruitment'. We recruit outstanding talent in an impartial manner through both rolling recruitment and a formal semi-annual recruitment process for college graduates. In addition, we offer a global internship programs for foreign undergraduates residing in Korea.

## Developing Talents to Their Full Potential

In 2017, the HR Development Center offered 274 training programs, which included specialist programs for each job category and a leadership training program for managers. Moreover, all staff received training on the understanding and execution of 'Vision 2025', the newly-established vision of Dong-A Socio Group. Overseas business trainings were offered to enhance global competitiveness, and local seminars looked at trends in fast-changing overseas markets. We also completed the 3rd 'Global Business Preparation Course', a program aimed at enhancing the global mindset at the Group level. We also provide pharmacovigilance training every year to inform the right way to respond to any incidents of harm caused by our products.

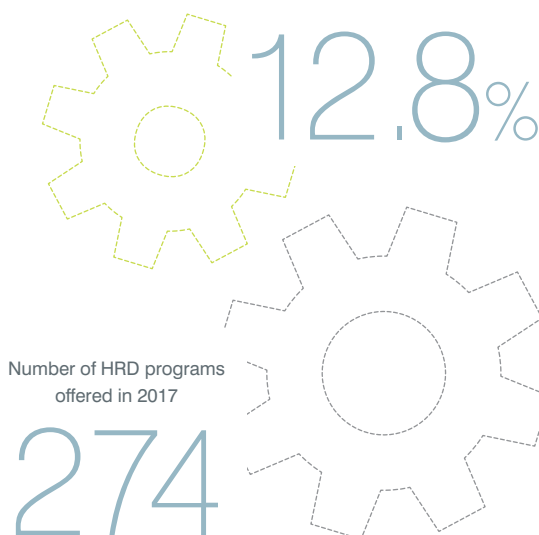
## Creating a Great Workplace

Dong-A Socio Group promotes a healthy workplace and helps staff achieve a good balance between their work and personal lives. We have offered a mentoring program to help new employees get adjusted to their new roles since 2010. There are also many other programs and activities, including volunteer work, sports, as well as culture and art performances. These include the 'Dong-A Family Day', which encourages a corporate culture that balances work and personal lives and builds an autonomous, creative organizational culture. We also run an anti-smoking campaign and a 'Healthy Place to Work' program which checks the health of employees through monthly customized one-on-one counseling with a medical specialist. These programs help to maintain a healthy, happy work environment for our staff members. There is also a brunch café, 'Odin', where employees can relax. In recognition of these varied efforts, Dong-A Socio Holdings was chosen as a '2017 Accredited Family-Friendly Company' by the Ministry of Gender Equality and Family.



At Dong-A Socio Group, our people help us to achieve our corporate goals while we support them to achieve theirs. We are therefore committed to identifying the best talent in the industry who share our passion and vision.

Portion of R&D personnel to total personnel at Dong-A Socio Holdings and Dong-A ST



# Social Value

As an active and welcomed member of the community, Dong-A Socio Group strives to create real value for local communities in which we operate, and make a positive difference for a healthier future.

## Fostering Future Talents

'Dong-A Pharmaceutical's Tour Korea for College Students' is an event at which 144 college students walk a total of around 600 kilometers over 21 days. The tour was launched in 1998 to help young people to develop a spirit of challenge and hope. As of the 20th walk in 2017, the total number of participants has reached 2,857, and the cumulative distance walked is 11,576 kilometers.

'Class for Youth on Caring for the Environment and Life' is a five day class designed to teach 60 junior high school students how precious the environment is, and how to protect it.

'Kidzania Job Experience Program' helps children learn about different careers. Children from low-income families are given an opportunity for job experience, and they are encouraged to form views on various occupations. Launched in 2014, the program is run twice a year each in Seoul and Busan.

## Staff Volunteering Activities

'Baffor Sharing Volunteer Work' refers to soup kitchen volunteering undertaken by Dong-A Socio Group employees. Around 40 staff members help prepare food for approximately 800 people, distribute the food, and clean up afterwards. Employees have been supporting this volunteer work for 13 straight years since 2005, and it has been part of our new employee training program since 2014, which enables us to participate at least twice a year.



'Bigen Again' is volunteer work that involves staff members helping to dye the hair of senior citizens in Seoul using Dong-A Pharmaceutical's Bigen® Cream Foam. Begun in 2015, and now taking place every winter, this program helps seniors feel stylish and young.

'Doori Volunteer Team' was established by Dong-A ST's labor union in 2014 to support employee participation in volunteer work. The team repairs houses to improve the living conditions of people on low incomes, and delivers coal briquettes in order to give a helping hand to the underprivileged.

On the occasion of the 85th anniversary of the Group's founding in November 2017, employees of Dong-A Socio Group carried out volunteer work right across Korea, including at the Seoul Headquarters and around 40 branches throughout the nation. Volunteer work included delivering heating briquettes, making kimchi for the winter, and cleaning the environment. This demonstrated Dong-A Socio Group's commitment to growing in partnership with local communities and fulfilling social responsibilities.

## Sponsorships

'Sharing Bazaar' is a market at which Dong-A Socio Group sells Dong-A Pharmaceutical and Donga Otsuka products to local residents and employees at low prices. The proceeds are then donated to the Dongdaemun Social Welfare Council. The Bazaar has been held every May since 2009 at Dong-A Socio Group Headquarters.



Cumulative distance of Dong-A Pharmaceutical's Tour Korea for College Students

11,576 km

Number of Garglin® pouches donated to the Korean Red Cross in 2017

570,000 pouches



Amount of scholarships offered by Sooseok Cultural Foundation to 1,717 students

2.88  
KRW billion



‘Bacchus® Cup Junior Golf Team Championship’ supports talented young golfers in Korea. It has been held every May since 2005, with participation by around 200 elementary, junior high, and high school students from across the nation.

As part of our ‘Valuing Myself’ campaign, we have established a partnership agreement with the Korea Army Training Center whereby we provide Bacchus® for free to army recruits. We have supplied 150,000 bottles of Bacchus® every year since 2016.



### Donation of Pharmaceuticals and Talent

We have been donating Growthropin®, a human growth hormone, to children from low-income families since 2013. In 2017, we also began to provide Bacchus® for free to the Dongdaemun Senior Welfare Center. In addition, as part of our efforts to encourage people to donate blood, we provided 450,000 bottles of Garglin® to the Korean Red Cross. This has been well received by blood donors, so that we traveled across Korea to deliver an additional 120,000 bottles of Garglin®.

DA Information, an IT company within Dong-A Socio Group, has developed ‘Share Me’, an application that enables fund-raising, through the talent donation of its employees, and donated it to the Korean National Tuberculosis Association.

### Global CSR

Dong-A Socio Group carries out various CSR activities in countries where we operate. We have been providing scholarships to students attending the University of Pharmacy, Yangon, in Myanmar since 2014, and our employees have been providing lectures on pharmacy.

### Sooseok Cultural Foundation

The Sooseok Cultural Foundation runs a scholarship and other programs that promote academic and cultural activities. As of the end of 2017, the Foundation had provided scholarships to 1,717 high school students and undergraduates, totaling KRW 2.88 billion. In addition, the Sooseok Cultural Foundation has been sponsoring the ‘Marronier Women’s Composition Contest’ to encourage female writers since 1992. The foundation has also published the pamphlet ‘3,000 Chinese Characters Used in Daily Life’ and distributed it for free to schools, companies and various other groups. As of the end of 2017, 39,000 copies of the pamphlet have been distributed since its first publication in 2006.

### Sangju Institution

Sangju Institution is the educational foundation of Sangju High School. Former Chairman Joong-Hui Kang served as the 4th through 7th chair from 1964 to 1977, and Honorary Chairman Shin-Ho Kang served as the 8th chair and onwards. It provides scholarships, supports to school operations, and offers field trips to Dong-A Pharmaceutical’s Research Center and Cheonan Plant to help foster future talent.





[www.donga.co.kr](http://www.donga.co.kr)

# Dong-A Socio Holdings

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## Moving into new directions



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As the holding company of Dong-A Socio Group, Dong-A Socio Holdings defines the overall vision and strategic goals at the Group level, so that we evolve to meet the new challenges of health-care industry. 2017 was a year of change and challenge. Dong-A Socio Holdings therefore focused on helping its subsidiaries stay strong in competitive, ever-changing markets, and set out new path to lead from challenge to opportunity.



# Dong-A Socio Holdings At a Glance

## Dong-A Socio Holdings

Dong-A Socio Holdings is the holding company of Dong-A Socio Group. It aims to enhance shareholder value by increasing the transparency of its governance and improving its business efficiency.

The company has been establishing a responsible management system by supporting an independent and autonomous management, and by creating a high quality performance evaluation system. Dong-A Socio Holdings also strives to improve its competitiveness by establishing the right decision-making system for each business area and efficiently distributing resources with a goal of supporting potential growth and minimize business risks. Dong-A Socio Holdings has five strategic business units, providing different products and services. As the skills and marketing strategies required by each strategic business unit are different, each business unit is run separately.

### Ownership Structure of Dong-A Socio Holdings



**Dong-A ST <sup>1)</sup>**  
(22.34%)

**Dong-A  
Pharmaceutical**  
(100.00%)

**ST Pharm <sup>1)</sup>**  
(32.68%)

**DM Bio**  
(51.00%)

**Yong-Ma Logis**  
(100.00%)

**Soo Seok**  
(100.00%)

**Dong-A Otsuka**  
(49.99%)

\* As of December 31, 2017

<sup>1)</sup> Listed company

## Business Performance

In 2017, Dong-A Socio Holdings' consolidated operating revenues fell by 5% over the previous year, to KRW 690.3 billion. However, these results were substantially affected by a change in the scope of consolidation following the initial public offering (IPO) of ST Pharm, and most of major entities of the Group achieved good performances. Consolidated operating profits fell by 30% year-on-year, to KRW 53.4 billion, but this was mostly attributable to the fact that ST Pharm's contribution in the first half of the year was included in the previous year's performance.

• **Holding Company** Dong-A Socio Holdings is responsible for subsidiary management, and it offers business management services. Its main sources of revenue are dividend incomes, shared services fees and fees associated with license-out. In 2017, the company's separated operating revenues rose by 49.6% to reach KRW 82.7 billion. This is attributable to increased dividend incomes thanks to strong business performances at major subsidiaries, and increased revenues related to upfront fee recognition of prior licensed out R&D pipeline.

• **Pharmaceuticals** Dong-A Pharmaceutical is Dong-A Socio Holdings' wholly-owned subsidiary, in charge of the over-the-counter (OTC) and Bacchus<sup>®</sup> businesses. Sales in 2017 were KRW 391.8 billion, a year-on-year increase of 2%. This growth was led by robust sales of Bacchus<sup>®</sup>-F, which is distributed through convenience and large discount stores despite sluggish conditions in the overall OTC market.

• **Logistics** In 2017, Yong-Ma Logis generated KRW 186.5 billion in sales, a year-on-year increase of 7%. The main factors in this continued growth were customized customer services and the winning of contracts from new customers.

• **Bottle Glass** The main business areas of Soo Seok include glass bottles, bottle caps and PET bottles. The company grew by expanding its business areas in 2017, and recorded sales of KRW 94.5 billion, up 3% over the previous year.

## Future Plans

In 2018, Dong-A Socio Holdings will establish itself as a global company by actively responding to the rapid changes in the domestic and overseas business environment. Based on the new 'Vision 2025', Dong-A Socio Holdings and all of its subsidiaries will work in unison to 'be a global healthcare player by establishing distinctive competencies in each business area'. The development of each company's distinctive competitiveness will be based on its professional expertise and skills. Synergies between companies will further expedite the development of innovative new drugs, which will support our entry into global markets. The holding company will act as drivers for new growth at the holding company level by attracting new businesses and new investments, which in turn will be helped by increased transparency, improvements in governance, and strengthened trust from investors.

	Business Areas	Establishment	Sales (KRW billion)	Operating Profit Margin (%)	Total Assets (KRW billion)
Dong-A Socio Holdings <sup>1)</sup>	Subsidiary management, new business investments and R&D of new drugs	December 1932	690.3	7.7	1,459.4
Dong-A ST <sup>2)</sup>	Manufacture of ETC drugs, overseas business, and medical equipment and diagnostics	March 2013	554.8	4.3	899.8
Dong-A Pharmaceutical <sup>3)</sup>	Manufacture of OTC (Over-the-counter) drugs, quasi-drugs including Bacchus <sup>®</sup> and consumer healthcare products	March 2013	391.8	12.6	198.4
ST Pharm <sup>1)</sup>	Manufacture of APIs (Active Pharmaceutical Ingredients)	August 2008	202.8	30.5	381.5
DM Bio <sup>3)</sup>	R&D and manufacture of biopharmaceuticals	April 2015	4.7	-	140.0
Yong-Ma Logis <sup>3)</sup>	Logistics and storage	February 1979	186.5	4.3	132.7
Soo Seok <sup>3)</sup>	Manufacture of bottle glass and PET	September 1969	94.5	3.9	157.0

<sup>1)</sup> Consolidated figures

<sup>2)</sup> Separate figures

<sup>3)</sup> Individual figures



### KEY FIGURES (Unit: KRW billion)

Total Assets  
**198.4**

Sales  
**391.8**

Operating Profit  
**49.2**

Operating Profit Margin  
**12.6%**

\* As of December 31, 2017



[www.dapharm.com](http://www.dapharm.com)

Dong-A Pharmaceutical is a company that specializes in healthcare, and is a 100%-owned subsidiary of Dong-A Socio Holdings. Its main business areas include over-the-counter (OTC) drugs, which can be bought without a prescription, as well as health functional foods and quasi-drugs such as Bacchus<sup>®</sup>. The company focuses its research capabilities on preventative medicine and new functional products to enhance quality of life, rather than post-disease treatment, and thus boosts its product competitiveness. Dong-A Pharmaceutical is a leading healthcare company in Korea, and will continue to strengthen its ability to develop innovative medicines and services, with the ultimate goal of becoming a global healthcare company.

### Business Performance

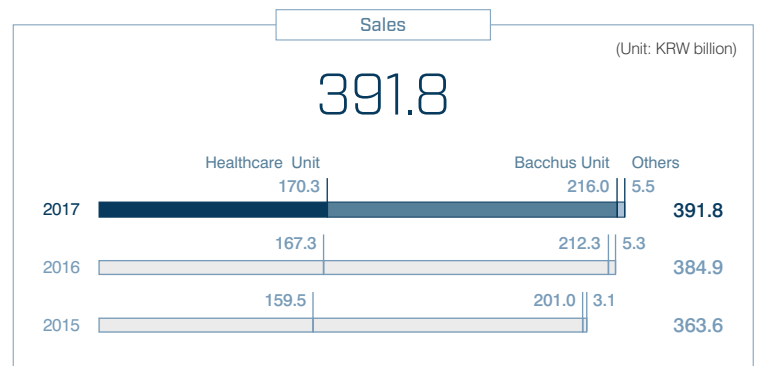
Dong-A Pharmaceutical achieved sales of KRW 391.8 billion in 2017, a year-on-year increase of 1.9%. Operating profit also rose by 3.4% to KRW 49.2 billion, with an operating profit margin of 12.6%. The Bacchus Unit recorded sales of KRW 216 billion, a 1.7% year-on-year increase, thanks to strong sales of Bacchus<sup>®</sup>-F, which is a major driver of company growth. The Healthcare Unit generated sales of KRW 170.3 billion, up 1.8% year-on-year, attributable to stable sales of key products such as Panpyrin<sup>®</sup>, Garglin<sup>®</sup>, Morning Care<sup>®</sup> and Tempo<sup>®</sup>, as well as growth in sales of Noscarina<sup>®</sup>. Dong-A Pharmaceutical has maintained steady growth since the demerger in 2013 backed by continuing balanced growth across its business units.

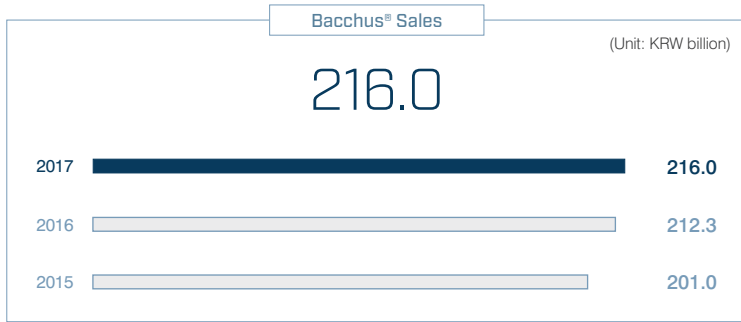
- Bacchus Unit** Bacchus<sup>®</sup> is the leading tonic drink in Korea, and one of the most successful brands in the country. It has been a consumer favorite for more than half a century since its launch in 1963. It has also set many records, including becoming the first single product sold by a pharmaceutical company in Korea to achieve annual sales of more than KRW 200 billion in 2015. Bacchus<sup>®</sup> continued its success story in 2017, recording sales of KRW 216 billion.



Dong-A Pharmaceutical has been expanding the market presence of Bacchus<sup>®</sup> by implementing a dual distribution strategy – providing Bacchus<sup>®</sup>-D through pharmacies and Bacchus<sup>®</sup>-F through general distribution channels including convenience stores. Consisting of nine branches and two sales offices, the Bacchus Unit is in charge of efficient supply and distribution of Bacchus<sup>®</sup> in Korea. Meanwhile, Dong-A Pharmaceutical broke away from the traditional distribution system in which retailers purchase goods from manufacturers, and established the Route Sales System through which Bacchus<sup>®</sup> is supplied directly to retailers. This Route Sales System enables the timely supply of products, detailed inventory control and precise cash flow management.

As of the end of 2017, Bacchus<sup>®</sup> had sold 20.2 billion bottles, enough to go around the globe more than 60 times. This phenomenal statistic is the result of Dong-A Pharmaceutical's outstanding product competitiveness, substantial production capacity, highly efficient operations, and unwavering commitment to quality.











Dong-A Pharmaceutical's distinctive marketing strategies reflect the trends of the era. The company does more than simply deliver information, and instead reaches out to customers through content that they can truly identify with. In particular, TV advertisements for Bacchus® have delivered messages that promote the public interest for more than half a century by telling stories about everyday lives of ordinary people. This is regarded as a leading example of marketing success, and has been pivotal in the success of Bacchus® over such a long period. Dong-A Pharmaceutical's marketing activities also aim to expand the range of customers. In 2017, it launched a limited-time 'Bacchus®-scent sorbet' brand in collaboration with Baskin-Robbins, which reinforced the friendly image of Bacchus® and targeted younger generations. Dong-A Pharmaceutical will continue to achieve growth for Bacchus® based on outstanding product competitiveness and backed by distinctive marketing strategies.



• **Healthcare Unit** The Healthcare Unit supplies OTC products, quasi-drugs and health functional foods to pharmacies and through general distribution channels. Supported by outstanding team work and field management, around 140 sales staff supply approximately 70 types of OTC products to about 20,000 pharmacies, and also supply quasi-drugs and health functional foods to large discount stores, convenience stores and supermarkets across the nation, as well as through online channels. The company has dedicated OTC marketers and branches for OTC products that can only be sold to pharmacies – these products are supplied directly to pharmacies across the nation, and through around 90 wholesalers.

**History of Bacchus®**

<p>1961</p> <p>First released in tablet form</p> 	<p>1962</p> <p>Changed to ampoule form</p> 	<p>1963</p> <p>Changed to drink form, and released as Bacchus®-D (Drink)</p> 	<p>1991</p> <p>Renewed to Bacchus®-F (Forte)</p> 	<p>2005</p> <p>Renewed to Bacchus®-D (Double), and launched Bacchus® Decafe with zero caffeine</p> 	<p>2011</p> <p>Launched Bacchus®-F</p> 
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In 2017, the Healthcare Unit recorded sales of KRW 177.6 billion, a year-on-year increase of 6.1%. This continued growth was enabled by increased sales of existing products, thanks to continual brand renewal and repositioning, and the launch of new products that satisfy current consumer tastes.

The Panpyrin<sup>®</sup> is a flagship cold medicine brand of Dong-A Pharmaceutical, and is sold at pharmacies and convenience stores. Sales in 2017 went up 11.8% over the previous year to record KRW 35.4 billion. In particular, Panpyrin<sup>®</sup>-T, which has been designated as a safe household drug and is thus available at convenience stores, has continued to achieve high growth. Sales of Benachio<sup>®</sup>, a dyspepsia treatment, have grown ever since its release, thanks to positive advertising and the concept of the brand as a carbonic acid-free liquid digestive medicine. In 2017, its sales stood at KRW 8.5 billion, up 37.6% over the previous year, reinforcing its position as the No. 2 brand in the market. Noscarna<sup>®</sup>, a scar treatment, has achieved strong growth over the past two years, and its sales in 2017 grew by 125.1% from the previous year, to reach KRW 6.5 billion. This success has been mainly attributable to Dong-A Pharmaceutical's strategy of repositioning it as an acne scar treatment, targeting consumers in their teens and 20s.

Garglin<sup>®</sup> is a mouthwash, and one of Dong-A Pharmaceutical's flagship brands. In 2017, the company focused its marketing campaign for Garglin<sup>®</sup> on emphasizing the safety of the product for not containing color additives. The company also launched Garglin<sup>®</sup> Lime, responding to feedback from a customer preference survey. Backed by such efforts, Garglin<sup>®</sup> has been leading the domestic mouthwash market, and it generated sales of KRW 23.8 billion in 2017, a year-on-year increase of 6%. Tempo<sup>®</sup>, Dong-A Pharmaceutical's tampon product, was renewed in 2017 to mark its 40th anniversary. By using a thinner absorbent material and adding an applicator, Tempo<sup>®</sup> was made easier and more comfortable to use. In addition, the packaging design was updated, to bring the product closer to consumers.

## Future Plans

The global healthcare market continues to change rapidly, driven by diversifying customer needs. The boundaries between the pharmaceutical industry and non-pharmaceutical industries such as the food industry, are becoming blurred. There are also non-industry variables, such as changes in social structures and climate. This all points to the need for accurate market insights and preemptive responses to change.

Dong-A Pharmaceutical strives to respond actively and promptly to these market changes by developing its own distinctive competitiveness, with a goal to grow into a global healthcare player. The company therefore will widen its marketing with focus on its global businesses, including the Vietnamese and Chinese markets, so as to develop new engines for growth. Moreover, it will reinforce its leadership in the domestic market by expanding distribution channels and developing innovative new products. Dong-A Pharmaceutical will also establish an internal organization committed to innovation, allowing the innovation to come both from within and outside the company. These will enable Dong-A Pharmaceutical to improve its expertise and develop competitiveness, which in turn will support its business plans for future markets.

## Key Products

### Over-the-counter Drugs

#### Panpyrin®-Q

Anti-inflammatory, Antipyretic,  
Analgesic Drug

Panpyrin®-Q is a cold medicine in liquid form released in 2007. It is effective for colds, aches, and headaches, as well as for coughs and phlegm, and delivers outstanding effects in the initial phase of a cold. As Dong-A Pharmaceutical's flagship OTC product, it maintained strong market share of about 65%, reinforcing its leading position in the domestic liquid cold medicine market.

#### Panpyrin®-T

Anti-inflammatory, Antipyretic,  
Analgesic Drug

Released in 1956, Panpyrin®-T is a cold medicine tablet that is effective in treating colds, aches and headaches, and particularly effective in the initial phase of a cold. It is available in two packages – 300 tablets and 3 tablets. The 3-tablet product was nominated as one of 13 safe household drugs determined by a government selection process that began in 2012, and is also available at convenience stores.

#### Noscarna® Gel

Scar Treatment

Released in 2013, this scar treatment is effective for hypertrophic keloid scars, surgery scars, and acne scars. Compared to similar products, this product has the highest content, in Korea, of the main ingredients heparin sodium and allantoin. Its effect of normalizing skin color and reducing scar size was proven through a preclinical study.

#### Benachio®

Dyspepsia Treatment

Released in 2009 as a functional dyspepsia treatment, Benachio® is effective for general indigestion as well as loss of appetite, epigastric distension, nausea, and vomiting. In 2015, it became Korea's first liquid digestive medicine to demonstrate proven effects of functional dyspepsia improvement through a clinical trial. This phytomedicine, which contains no carbonic acid and indicates low irritation levels, has continued high growth since its launch, and currently ranks second in domestic market share.

#### Myvlar® Tab.

Contraceptive Medicine

This third-generation contraceptive medicine contains gestoden. It is a flagship product from among the four contraceptive medicines Dong-A Pharmaceutical acquired from Bayer Korea in 2015. With Myvlar®, which enjoys the second highest share of the market, serving as a growth driver, a sub-brand Meliane® has outrun competitor products to take the No. 3 spot in market share and continues to grow. As second-generation contraceptive medicines, Minivlar® and Triquilar® have a low risk of thrombosis, which in turn makes them popular with women who are at greater risk of related illnesses.



Quasi-Drugs

**Bacchus®**

Tonic

Bacchus® has been leading the domestic tonic market since its launch in 1963. It was reclassified from an OTC drug to a quasi-drug in 2011, and in 2017, it recorded sales of KRW 216.0 billion in Korea. Bacchus®-D, which is available at pharmacies, contains vitamin B1 and taurine 2,000 mg, which is an essential amino acid for modern people. Bacchus®-F, which is continuing high growth across general distribution channels, is 20 ml larger than Bacchus®-D, and contains DL-carnitine which improves digestive functions.

**Bigen®**

Hair Color Product

Bigen® has been a long-time market leader in the highly competitive hair color product market, thanks to its high level of customer awareness and proven product quality, based on the tradition of more than 100 years. Bigen® was launched as a powder form in 1957, followed by the release of the Bigen® Cream Tone in 1991, the Bigen® Cream Foam in 2011, and the Bigen® Cream Tone Speedy in 2015, in order to satisfy different consumer needs.

**Garglin®**

Mouthwash

Garglin® is effective in cavity prevention and in reaching a level of oral care that cannot be achieved by brushing alone. It kills 99.9% of S. mutans, which causes cavities. Through the renewal of existing products and launch of new products in 2015, its product group was further strengthened, including the cavity prevention line, mouth cleansing line and children line. In 2016, Dong-A Pharmaceutical moved into the gum disease market by launching Gum Garglin Gum Guard®, which prevents gum disease as well as cavities.

**Eyebon®**

Eyewash

Launched in 2016, Eyebon® is the first eyewash product from a Korean pharmaceutical company. It washes away foreign substances in the eyes that come directly or indirectly from perspiration, fine dust, contact lenses, or cosmetics. Eyebon® also prevents problems in the eyes by protecting the cornea and helping with recovery from fatigue, thus contributing to improving quality of life.

**Tempo®**

Tampon

Released in 1977, Tempo® is Korea's first domestic tampon. It is completely safe to use, even for sensitive skin, as it is manufactured from an absorbent material made of pure cotton. In addition, unlike menstrual pads, it does not cause skin irritation and ensures convenience in daily life. Tempo Eco Natural, which uses 100% pure organic cotton, was launched in 2014.

Drinks

**Morning Care®**

Hangover Drink

Morning Care® is a drink that eases the symptoms of hangovers, and helps to protect the liver from the damage caused by alcohol. First released in 2005, Dong-A Pharmaceutical has been expanding its product line-up by releasing Morning Care® Plus, which was recognized as a health functional food, and Morning Care® Lady for women, which contains hyaluronic acid and collagen. It has further strengthened market dominance by releasing Morning Care® Turmeric in 2015 which contains turmeric, water chestnut, and rice soybean extract (RSE), and Morning Care® Turmeric S in a large-size container (470 ml) and Turmeric T (Tomato) with lycopene added in 2016.





## KEY FIGURES

(Unit: KRW billion)

Total Assets

381.5

Sales

202.8

Operating Profit

61.8

Operating Profit Margin

30.5%

\* As of December 31, 2017



[www.stpharm.co.kr](http://www.stpharm.co.kr)

### General Capacity

	Sihwa Site	Banwol Site	Total
Area	16,400 m <sup>2</sup>	28,220 m <sup>2</sup>	44,620 m <sup>2</sup>
Reactors	67	58	125
Capacity	286,100 L	139,000 L	425,100 L

### Commercial Scale Plants

	Sihwa Site	Banwol Site
Number of plants	Five plants	Four plants
Reactor size	3,000 to 7,000 L	100 to 7,000 L

### Pilot Scale Plants

	Sihwa Site		Banwol Site	
Number of plants	Kilo-lab	Pilot plant	Sector 4	Sector 3
Reactor size	50-100 L	200-500 L	500-1,000 L	1,000-2,000 L

\* GMP operation available

### Oligo Plants

Line	Sihwa Site	Banwol Site
Small-scale	(nmol – μmol scale): MM-192, MM-12	
Mid-scale	(mmol scale): 3x OP100	
Large-scale	(300 mmol scale): 2 x AKB	(1.5 mol scale): 1 x GE (Oligo process)

ST Pharm is a contract development manufacturing organization (CDMO) for active pharmaceutical ingredients (APIs) and other chemicals. Founded in 1983 as Samchully Pharm, it became a subsidiary of Dong-A Socio Group in 2010, and it was listed on the KOSDAQ market in 2016. ST Pharm is determined to provide high quality products and services to its clients world-wide continuously, and will thus become a global CDMO.

## Business Overview

The business area of ST Pharm is divided into the pharmaceutical and non-pharmaceutical sectors. In the pharmaceutical sector, ST Pharm manufactures small molecule APIs, oligonucleotide APIs and generic APIs. The company has also new drug pipelines, being focused on the early stage. In the non-pharmaceutical sector, ST Pharm manufactures fine chemicals such as polymer catalysts and electronic materials for a second battery.

## Business Performance

In 2017, ST Pharm reported sales of KRW 202.8 billion, a year-on-year increase of 1.2%. Growth was led mainly by growing in sales of new drug anti-viral (hepatitis C) APIs and of nucleic acid-based therapeutics (oligonucleotides). Total sales of new drug APIs reached KRW 160 billion, a year-on-year increase of 4.0%. Operating profit went down slightly compared to 2016 and stood at KRW 61.8 billion. This was mainly due to the impact of the weaker US Dollar on exports, lowering production, and increased R&D expenses.

## Business Strategy and Future Plans

ST Pharm has supplied antiviral APIs and intermediates over the past several decades, including Zidovudine and Thymidine, a nucleoside HIV treatment. ST Pharm is currently supplying innovative new drug APIs for hepatitis C treatment, a global pharmaceutical company. With this proven capability in nucleoside technology, it is the only CDMO in the world that is able to offer 'One-stop Service', ranging from the production of raw materials to completed oligonucleotide APIs.

Oligonucleotide therapeutics, also known as nucleic acid-based therapeutics, is the direct binding of designed small DNA or RNA fragments to inner body RNA, which inhibits the generating of disease-related proteins at the gene level. ST Pharm is growing into a leading global CDMO of oligonucleotide therapeutics supported by its fully-equipped facilities and integrated systems.

Moreover, ST Pharm uses an innovative virtual R&D strategy to focus on new drug discovery and development. Virtual R&D employs limited core resources to organize and monitor drug discovery and development process work flows, which both improves the value of R&D investment and also enables the efficient management of the entire drug discovery platform. ST Pharm mainly develops early stage new drugs for licensing-out. The company therefore seeks strategic Acquisition & Development (A&D) and Connection & Development (C&D) partnerships with other global companies, as well as looking at a broad range of collaborative relationships which can create true synergy and win-win partnerships.

### Capacity Expansion

#### Estimated Capacity

New cGMP Plant

28,300L

Oligo Plant

1,500mmol

#### Total Capacity by 2018

453,400L

for small molecules

2,100mmol

for oligonucleotides

There is a possibility that ST Pharm's new drug business could slow down due to lowering demand for HCV treatment. The company has therefore continued to diversify its business to minimize the impact. In the oligonucleotide business, ST Pharm is expecting to manufacture on a commercial scale within the next three years. Also, the company is constructing the new oligonucleotide manufacturing facility in its Banwol site which will be completed by June 2018 and will start operations in October 2018. Manufacturing capacity will immediately increase to 2.1 mol scale and will rise to 3.0 mol scale in the near future.

ST Pharm will also put substantial efforts into enhancing its capabilities in R&D and building a global network, so that it can become a comprehensive global CDMO.

## Capability and Capacity

ST Pharm has grown into a reliable custom manufacturing partner, offering high quality products to customers around the world. The company's manufacturing facilities and systems have been certified by global regulatory inspectors including the US FDA, MFDS of Korea, PMDA of Japan, TGA of Australia and the WHO. It has also earned cGMP certification from the EMA in Europe.

Backed by this history of inspections, ST Pharm has ample experience of nucleoside and oligonucleotide GMP manufacturing, having begun in the 1980's. In addition, new facilities are being retrofitted and constructed in the Sihwa and Banwol sites. Total capacity in the Sihwa and Banwol sites is 425,100 liters. Only the Sihwa site currently manufactures oligonucleotides, and capacity is around 0.6 mol. However, the construction of the new facility in the Banwol site will add capacity of up to 1.5 mol, lifting total capacity to 2.1 mol by the end of 2018. This capacity expansion, especially in the Banwol site, is another breakthrough for ST Pharm's oligonucleotide business, part of the company's commitment to respond to their clients' demands and market requirements flexibly and proactively. Furthermore, the company spares the space for further expansion in the future about up to the 3.0 mol scale.



KEY FIGURES

(Unit: KRW billion)

Total Assets

140.0

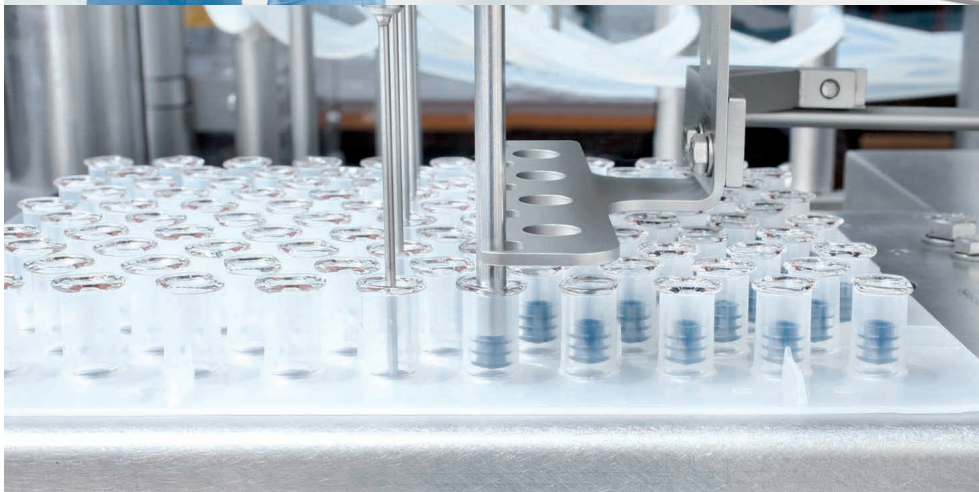
Sales

4.7

Total Production Capacity

8,000 liter

\* As of December 31, 2017



[www.dmbio.com](http://www.dmbio.com)

DM Bio is a biopharmaceutical company, founded through cooperation between Dong-A Socio Holdings and Meiji Seika Pharma of Japan.

In 2011, Dong-A Socio Holdings formed a comprehensive alliance in the biosimilars business with Meiji Seika Pharma, with the two companies agreeing to cooperate throughout the entire business process, from R&D to manufacturing and sales. The two companies invested approximately KRW 100 billion and completed the construction of a current Good Manufacturing Practice (cGMP) biopharmaceutical plant, designed in accordance with global regulations, in May 2014. Shortly afterwards, DM Bio was launched in April 2015 as a joint venture company, specializing in biosimilars. In addition to manufacturing and supplying products jointly developed by the two companies, DM Bio carries out contract development manufacturing organization (CDMO) business for other companies, which includes product manufacturing and process development services.

## Core Strengths

The DM Bio plant covers a site of around 144,430 m<sup>2</sup> in the Incheon Free Economic Zone, with a total floor space of 22,267 m<sup>2</sup>. The plant consists of the main three-story building, a waste-water treatment facility, a hazardous substances warehouse and a gas station. The plant has a total capacity of 8,000 liters, consisting of three independent 2,500 liter drug substance production lines on the second floor and a 500 liter drug substance production line on the first floor, enabling several products to be produced simultaneously. DM Bio has also established a flexible and efficient hybrid production system that combines the advantages of single-use and multi-use systems for the efficient production of therapeutic biologics. In addition, DM Bio provides fill & finish services through the operation of one semi-automated pre-filled syringe production line, established using the state-of-the-art facilities.

DM Bio began manufacturing drug substances in March 2015, and received a drug substance manufacturing license from the Korean Ministry of Food and Drug Safety (MFDS) in September. The company received its drug product manufacturing license in April 2016, and then began producing drug products based on an aseptic filling and packaging process. In December 2016, it also received a license from MFDS for a recombinant protein drug substance and GMP certification for a drug substance 500 liter production line, followed by GMP certification for a drug product (pre-filled syringe) production line in March 2017. DM Bio has also obtained the Accreditation Certificate of Foreign Drug Manufacturer from Japan's Ministry of Health, Labour and Welfare, in February 2017. In 2018, the company will obtain a license for a monoclonal antibody drug substance and GMP certification for a 2,500 liter drug substance production line from the MFDS.

Furthermore, DM Bio set up a fully equipped process development lab in August 2016, in order to satisfy bio industry requirements, which was followed by the placement of dedicated personnel and the beginning of full operations in February 2017. Since then, the lab has been receiving transfers of small-scale process from clients for checking and verifying. In addition, the lab analyzes the process risks involved in scale-up and performs preliminary tests on other variables. In 2018, DM Bio will continue its investment in improving its capabilities in the full range of process development, thus enhancing its position as a CDMO.

Major advantages of DM Bio are the experiences, expertise and know-how of two leading pharmaceutical companies from Korea and Japan, as well as their outstanding infrastructure. DM Bio plans to first enter the Japanese market, where Meiji Seika Pharma already has a substantial market presence, and will advance into other markets, including Korea, Europe and the U.S. Dong-A Socio Holdings and Meiji Seika Pharma will obtain sales approvals for their respective countries, and will work in partnership in global markets.

## Current Progress & Future Plans

DM Bio is currently developing DMB-3111, a biosimilar of Herceptin<sup>®</sup>. In 2015, the company successfully completed a phase I clinical trial of DMB-3111 in Japan which proved that it has extremely high equivalence with the original drug. In October 2016, DM Bio signed a licensing-out agreement for DMB-3111 with Gedeon Richter, a Hungarian pharmaceutical and biopharmaceutical company. Under this agreement, DM Bio has licensed out manufacturing technology of DMB-3111 to Gedeon Richter for local production in Hungary, as well as exclusive rights for Europe, Russia, Commonwealth of Independent States (CIS) and Latin America. The company will receive an up-front payment, milestone payments at certain stages of development, and defined royalties after commercialization.

DM Bio is also preparing a phase 1 clinical study for a biosimilar of Stelara<sup>®</sup>, a psoriasis treatment, and is researching biosimilars of Opdivo<sup>®</sup> and Keytruda<sup>®</sup>, which are immune checkpoint inhibitors. The company is planning on license-out these biosimilars to global pharmaceutical companies, so that it will actively seek for partners at each phase of the clinical development. In addition, DM Bio will widen its business areas, beginning with CDMO, and will also expand its geographical reach by entering global markets, including Europe and the U.S.



## KEY FIGURES

(Unit: KRW billion)

Total Assets	Sales	Operating Income	Operating Profit Margin
132.7	186.5	8.1	4.3%

\* As of December 31, 2017

Yong-Ma Logis is a third party logistics (3PL) company with a substantial network and advanced logistics technologies.

Yong-Ma Logis has 20 logistics centers, five transportation centers and 35 distribution centers across Korea. Through these directly-managed network, the company stays agile in responding to customer requirements. It also runs a quality assurance (QA) organization offering high-quality services, and has earned advanced logistics qualifications such as Korean Good Supplying Practice (KGSP) and ISO 9001/14001 certification. Yong-Ma Logis became the first Korean logistics company to adopt the Warehouse Management System (WMS), and offers advanced logistics information systems, including the Transportation Management System and the Delivery Management System, which provide freight visibility. The company is also increasing its presence in the e-logistics sector by integrating its information systems and adopting new technologies. Yong-Ma Logis has won widespread recognition for delivering customer satisfaction, and it received an A Grade in the delivery service evaluation conducted by the Korean Ministry of Land, Infrastructure and Transport in both 2016 and 2017.

### 2017 Performance

In 2017, Yong-Ma Logis continued its steady growth to generate sales of KRW 186.5 billion, up 10.9% year-on-year. The delivery service business achieved sales of KRW 65 billion, a year-on-year increase of 4.3%. Sales at the 3PL service business were KRW 55.4 billion, up 14.3% from the previous year, thanks to the addition of a significant number of new customers, particularly in the medical equipment sector where consignors were attracted by high added-value services such as the pharmaceutical serial numbering system and the KGSP-certified warehouse. The transportation

service business targeted paper pulp industry and other specific industry groups during the year, which has resulted in sales of KRW 33.1 billion, up 6.4% year-on-year. The forwarding service business strengthened its sales capabilities by forming a dedicated sales team, which drove strong sales of KRW 26.9 billion, a year-on-year increase of 31.2%.

Meanwhile, Yong-Ma Logis earned Authorized Economic Operator (AEO) certification from the National Tax Service in recognition of its outstanding capabilities as an export and import safety management company, while expanding its airport bonded warehouse operations. In 2017, Yong-Ma Logis was also selected to be the operator of the pilot drone project being implemented by the Ministry of Land, Infrastructure and Transport to promote the drone industry, and tested set-route flying.

### Future Plans

Yong-Ma Logis is targeting sales of KRW 205 billion for 2018, up 10% over the previous year. It plans to achieve this goal by attracting large consignors and adding business areas. In doing so, and by building a mid- to long-term infrastructure, the company will realize its vision of becoming a global supply chain management leader in health & beauty by 2025. Yong-Ma Logis will therefore put its efforts on one promising business for each business unit and improve competitiveness in that area. The company will also diversify by identifying new businesses and expanding overseas. In addition, Yong-Ma Logis will further improve its logistics processes and build a global quality management system. Over the long term, the company plans to lead this era of rapid change in the logistics industry by adopting logistics 4.0 technologies, including artificial intelligence (AI) and smart technologies.



# Soo Seok



## KEY FIGURES

(Unit: KRW billion)

Total Assets	Sales	Operating Income	Operating Profit Margin
157.0	94.5	3.7	3.9%

\* As of December 31, 2017

Soo Seok is a comprehensive packaging container manufacturer that produces packaging containers, such as glass bottles, aluminum caps, PET bottles and plastic caps.

Founded in 1969, the company became a member of Dong-A Socio Group in 1978. As of the end of 2017, the company consists of the Glass Unit, which produces amber and colorless bottles; the Cap Unit for a wide range of caps, including standard caps and polyethylen mold caps; and the P.P Unit, to manufacture non-pressure resistant (NR) PET, heat resistant (HR) PET, pressure resistant (PR) PET and plastic caps.

### Key Achievements

Soo Seok has been improving the stability and profitability of its established businesses, while expanding into new markets. The company's main business is glass bottles, and it has leveraged its more than 45 years of experience to build state-of-the-art automatic bottle-forming facilities and to establish automation systems for all its production processes. This has enabled the company to produce high quality glass bottles in large quantities. Soo Seok has continued to respond to the diversification of packaging containers, and thus expanded into aluminum caps in 2007, plastic caps in 2009, and the PET market in 2011.

In 2017, the company's Cap Unit and P.P Unit moved to a new plant located in South Chungcheong Province. The new 57,516 m2 plant has been built in accordance with a memorandum of understanding (MOU) signed with Dong-A Pharmaceutical in 2015. The new plant brings together the latest facilities with the company's extensive know-how, enabling it to focus better on increasing its production capabilities and widening its distribution channels. In

addition, putting the production facilities of Soo Seok and Dong-A Pharmaceutical together in one place will generate synergies which will curtail costs and enhance production efficiency. As a result of all these efforts, in 2017 Soo Seok generated KRW 94.5 billion in sales, a year-on-year increase of around 2.8%.

### Future Plans

In 2018, Soo Seok is targeting sales of KRW 104 billion, a 10.4% increase from the previous year. It will achieve this goal by increasing its market share with existing customers and also by acquiring new customers. Moreover, the company is targeting better profitability thanks to the cost reductions and enhanced productivity that will come about as a result of the full operation of the Dangjin Plant, the construction of which was completed in 2017. The company will continue to promote positive labor-management relations and offer training to improve job performance. It will also begin the processes needed for quality certification, in order to support product quality.

In the mid- to long-term, Soo Seok will move beyond its existing businesses in the beverage container market, and plans to set up new businesses as part of its efforts to realize its vision of becoming a comprehensive packaging specialist.



# Dong-A Socio Holdings Financial Review

Dong-A Socio Holdings Co., Ltd. and Subsidiaries

## Independent Auditors' Report

Based on a report originally issued in Korean

### The Board of Directors and Shareholders

Dong-A Socio Holdings Co., Ltd.:

#### Report on the Consolidated Financial Statements

We have audited the accompanying consolidated financial statements of Dong-A Socio Holdings Co., Ltd. and its subsidiaries (the "Group"), which comprise the consolidated statements of financial position as at December 31, 2017 and 2016, the consolidated statements of comprehensive income, changes in equity and cash flows for the years then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

#### Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with Korean International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

#### Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with Korean Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial

statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as of December 31, 2017 and 2016 and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with Korean International Financial Reporting Standards.

#### Other Matter

The procedures and practices utilized in the Republic of Korea to audit such consolidated financial statements may differ from those generally accepted and applied in other countries.

KPMG Samjong Accounting Corp.

Seoul, Korea

March 19, 2018

This report is effective as of March 19, 2018, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying consolidated financial statements and notes thereto. Accordingly, the readers of the audit report should understand that the above audit report has not been updated to reflect the impact of such subsequent events or circumstances, if any.

## Consolidated Statements of Financial Position

As of December 31, 2017 and 2016

(In thousands of won)	2017	2016
<b>ASSETS</b>		
Cash and cash equivalents	₩ 179,487,937	95,936,341
Trade receivables	82,561,180	110,877,104
Other current financial assets	5,434,842	5,956,056
Short-term held-to-maturity financial assets	212,980	61,475
Short-term derivative assets	4,439,744	1,169,665
Inventories	77,260,517	85,588,550
Other current assets	3,386,992	2,878,003
Current tax assets	1,135,739	59,010
<b>Total current assets</b>	<b>353,919,931</b>	<b>302,526,204</b>
Other financial assets	7,061,919	7,073,872
Available-for-sale financial assets	24,532,471	24,910,279
Held-to-maturity financial assets	342,930	498,065
Other non-current assets	185,824	215,588
Investments in joint ventures and associates	679,404,383	674,507,755
Property, plant and equipment	338,802,980	355,187,443
Intangible assets	26,455,495	18,360,918
Investment property	20,079,831	8,345,252
Deferred tax assets	8,659,513	10,590,143
<b>Total non-current assets</b>	<b>1,105,525,346</b>	<b>1,099,689,315</b>
<b>Total assets</b>	<b>₩ 1,459,445,277</b>	<b>1,402,215,519</b>
<b>LIABILITIES</b>		
Trade payables	₩ 24,671,682	23,119,923
Other financial liabilities	43,700,564	51,497,673
Short-term borrowings	227,037,267	332,019,860
Short-term financial guarantee liabilities	19,888	19,927
Provisions	5,971,324	6,063,170
Other current liabilities	17,393,361	18,807,442
Income tax payable	4,171,130	12,509,421
<b>Total current liabilities</b>	<b>322,965,216</b>	<b>444,037,416</b>
Other financial liabilities	44,400	5,000
Long-term borrowings	171,469,833	29,275,156
Financial guarantee liabilities	55,262	53,829
Employee benefits	8,345,238	3,571,304
Other non-current liabilities	8,382,628	17,526,628
Deferred tax liabilities	33,934,247	31,888,763
<b>Total non-current liabilities</b>	<b>222,231,608</b>	<b>82,320,680</b>
<b>Total liabilities</b>	<b>545,196,824</b>	<b>526,358,096</b>
<b>EQUITY</b>		
Share capital	30,691,140	30,251,565
Share premium	285,845,009	278,587,196
Capital adjustments	(197,914,366)	(197,914,366)
Other equity components	146,190,908	143,710,513
Retained earnings	647,940,713	621,222,515
<b>Equity attributable to owners of the company</b>	<b>912,753,404</b>	<b>875,857,423</b>
<b>Non-controlling interests</b>	<b>1,495,049</b>	<b>-</b>
<b>Total equity</b>	<b>914,248,453</b>	<b>875,857,423</b>
<b>Total liabilities and equity</b>	<b>₩ 1,459,445,277</b>	<b>1,402,215,519</b>

## Consolidated Statements of Comprehensive Income

For the years ended December 31, 2017 and 2016

	2017	2016
(In thousands of won)		
<b>Operating revenue</b>	₩ 690,264,582	726,165,504
Finished goods and merchandise	444,628,675	528,464,132
Transport and delivery	168,828,379	151,062,714
Commissions	37,714,182	29,328,767
Construction contract revenue	37,189,772	15,419,788
Others	1,903,574	1,890,103
<b>Operating expense</b>	636,890,164	650,166,842
Finished goods and merchandise	229,263,305	266,884,784
Transport and delivery	171,835,091	154,301,214
Commissions	7,194,386	5,945,385
Construction contract cost	35,114,643	14,694,951
Others	1,088,558	1,024,420
Salaries	63,195,636	64,479,043
Retirement benefits	5,785,258	5,730,048
Employee benefits	8,021,909	7,033,439
Other selling, general and administrative expenses	97,801,020	101,401,607
Research and development costs	17,590,358	28,671,951
<b>Operating profit</b>	53,374,418	75,998,662
Other income	2,665,369	105,259,157
Other expenses	5,219,498	2,322,638
Finance income	5,916,979	21,150,408
Finance costs	16,398,394	12,624,968
Equity Income on Investments	6,796,934	10,305,940
<b>Profit before income tax</b>	47,135,808	197,766,561
Income tax expense	14,592,421	22,076,142
<b>Profit for the year</b>	₩ 32,543,387	175,690,419
(In thousands of won, except earnings per share information)		
<b>Other comprehensive income (loss)</b>		
<b>Items that will not be reclassified to profit (loss):</b>		
Defined benefit plan remeasurement	₩ (909,249)	(2,004,301)
Change in retained earnings – change in equity method accounted investments	1,134,374	(688,658)
<b>Items that are or may be reclassified subsequently to profit (loss):</b>		
Unrealized net change in fair value of available-for-sale financial assets	283,047	1,687,059
Capital adjustment for equity method accounted investments	11,267	1,564,748
<b>Other comprehensive income (loss) for the year</b>	519,439	558,848
<b>Total comprehensive income for the year</b>	33,062,826	176,249,267
<b>Profit attributable to:</b>		
Owners of the company	32,543,387	149,051,293
Non-controlling interests	-	26,639,126
<b>Profit for the year</b>	32,543,387	175,690,419
<b>Total comprehensive profit attributable to:</b>		
Owners of the Company	33,062,826	149,630,964
Non-controlling interests	-	26,618,303
<b>Total comprehensive profit for the year</b>	₩ 33,062,826	176,249,267
<b>Earnings per share</b>		
Basic earnings per share (won)	5,311	29,311
Diluted earnings per share (won)	4,967	28,037

## Consolidated Statements of Changes in Equity

For the year ended December 31, 2016

(In thousands of won)	Attributable to owners of the Company					Non-controlling interests	Total equity	
	Share capital	Share premium	Capital adjustments	Other equity components	Retained earnings			
<b>Balance at January 1, 2016</b>	₩	23,333,955	79,800,412	(200,008,466)	138,964,976	479,510,149	81,040,509	602,641,535
<b>Total comprehensive income for the year:</b>								
Profit for the year		-	-	-	-	149,051,293	26,639,126	175,690,419
<b>Other comprehensive income (loss):</b>								
Change in fair value of available-for-sale financial assets		-	-	-	1,687,059	-	-	1,687,059
Capital adjustment for equity method accounted investments		-	-	-	1,564,748	-	-	1,564,748
Defined benefit plan remeasurement		-	-	-	-	(1,983,478)	(20,823)	(2,004,301)
Change in retained earnings-change in equity method accounted investments		-	-	-	-	(688,658)	-	(688,658)
Total other comprehensive income (loss)		-	-	-	3,251,807	(2,672,136)	(20,823)	558,848
<b>Total comprehensive income (loss) for the year</b>		-	-	-	3,251,807	146,379,157	26,618,303	176,249,267
<b>Transactions with owners of the Company, recognized directly in equity:</b>								
Dividends		-	-	-	-	(4,666,791)	(2,319,323)	(6,986,114)
Disposition of treasury stock		-	-	2,094,100	2,441,925	-	4,829,951	9,365,977
Exercise of stock warrants		876,000	14,430,047	-	(486,021)	-	-	14,820,026
Exercise of convertible rights		986,130	12,502,258	-	-	-	-	13,488,388
Contribution in kind		5,055,480	171,854,480	-	-	-	132,233,037	309,142,997
Change in scope of consolidation		-	-	-	(345,328)	-	(255,564,015)	(255,909,343)
Transactions with non controlling interest		-	-	-	(116,847)	-	13,161,538	13,044,691
<b>Total transactions with owners</b>		6,917,610	198,786,785	2,094,100	1,493,729	(4,666,791)	(107,658,812)	96,966,622
<b>Balance at December 31, 2016</b>	₩	30,251,565	278,587,197	(197,914,366)	143,710,512	621,222,515	-	875,857,423

(In thousands of won)	Attributable to owners of the Company					Non-controlling interests	Total equity
	Share capital	Share premium	Capital adjustments	Other equity components	Retained earnings		
Balance at January 1, 2017	₩ 30,251,565	278,587,197	(197,914,366)	143,710,512	621,222,515	-	875,857,423
<b>Total comprehensive income for the year:</b>							
Profit for the year	-	-	-	-	32,543,387	-	32,543,387
<b>Other comprehensive income (loss):</b>							
Change in fair value of available-for-sale financial assets	-	-	-	283,047	-	-	283,047
Capital adjustment for equity method accounted investments	-	-	-	11,267	-	-	11,267
Defined benefit plan remeasurement	-	-	-	-	(909,249)	-	(909,249)
Change in retained earnings-change in equity method accounted investments	-	-	-	-	1,134,374	-	1,134,374
Total other comprehensive income (loss)	-	-	-	294,314	225,125	-	519,439
<b>Total comprehensive income (loss) for the year</b>	-	-	-	294,314	32,768,512	-	33,062,826
<b>Transactions with owners of the Company, recognized directly in equity:</b>							
Dividends	-	-	-	-	(6,050,313)	-	(6,050,313)
Exercise of stock warrants	439,575	7,257,812	-	(244,090)	-	-	7,453,297
Transactions with non controlling interest	-	-	-	-	-	1,495,049	1,495,049
Issuance of bonds with warrants	-	-	-	2,430,170	-	-	2,430,170
<b>Total transactions with owners</b>	439,575	7,257,812	-	2,186,080	(6,050,313)	1,495,049	5,328,203
Balance at December 31, 2017	₩ 30,691,140	285,845,009	(197,914,366)	146,190,906	647,940,714	1,495,049	914,248,452

## Consolidated Statements of Cash Flows

For the years ended December 31, 2017 and 2016

(In thousands of won)	2017	2016
<b>Cash flows from operating activities</b>		
Profit for the year	₩ 32,543,387	175,690,419
Adjustments	54,596,792	(62,638,966)
Changes in assets and liabilities	17,742,008	(62,976,578)
Dividends received	167,467	333,324
Income taxes paid	(20,593,143)	(19,932,041)
<b>Net cash from operating activities</b>	<b>84,456,511</b>	<b>30,476,158</b>
<b>Cash flows from investing activities</b>		
Interest received	2,141,327	1,507,709
Decrease in short-term financial instruments	3,000,000	1,340,000
Decrease in short-term loans	1,640,969	1,010,897
Proceeds from sale of held-to-maturity investments	13,585	10,394
Proceeds from sale of available-for-sale financial assets	443	36,823,912
Proceeds from sale of joint ventures	-	104,000
Proceeds from sale of investments in associates	-	-
Proceeds from sale of property, plant and equipment	1,088,284	3,157,380
Proceeds from sale of intangible asset	168,201	180,000
Proceeds from sale of investment property	155,000	38,114
Decrease in long-term financial instruments	2,511,578	-
Decrease in deposits	2,571,279	2,018,271
Increase in short-term financial instruments	(1,640,000)	(1,000,000)
Increase in short-term loans	(1,497,899)	(282,081)
Increase in long-term financial instruments	(2,506,999)	(120,000)
Acquisition of held-to-maturity financial assets	(9,955)	(16,539)
Acquisition of available-for-sale financial assets	(760)	(1,000,315)
Acquisition of property, plant and equipment	(24,986,150)	(64,543,986)
Acquisition of intangible assets	(4,413,199)	(431,015)
Acquisition of investments in associates	(1,669,860)	-
Acquisition of investments in joint ventures	-	(20,400,000)
Increase in deposits	(2,125,385)	(2,633,757)
Cash outflow due to change in scope of consolidation	(772,505)	(22,666,957)
Acquisition of business	-	(28,280)
<b>Net cash used in investing activities</b>	<b>(26,332,046)</b>	<b>(66,932,253)</b>
<b>Cash flows from financing activities</b>		
Proceeds from short-term borrowings	31,890,000	100,112,053
Proceeds from long-term borrowings	15,200,000	15,300,000
Proceeds from bonds with warrants	97,847,817	-
Proceeds from rental deposits received	5,000	-
Proceeds from exercise of stock warrants	7,417,824	14,820,026
Disposal of treasury shares	-	4,616,895
Interest paid	(9,773,313)	(9,462,168)
Dividends paid	(6,050,313)	(6,986,114)
Repayment of short-term borrowings	(95,647,943)	(55,885,000)
Repayment of current portion of long-term borrowings	(5,591,507)	(47,793,297)
Repayment of long-term borrowings	(8,000,000)	-
Decrease in current portion of rental deposits received	-	(2,241,876)
<b>Net cash provided by financing activities</b>	<b>27,297,565</b>	<b>12,480,519</b>
<b>Net Increase(Decrease) in cash and cash equivalents</b>	<b>85,422,030</b>	<b>(23,975,576)</b>
Cash and cash equivalents at January 1	95,936,341	119,992,840
Effect of exchange rate fluctuations on cash held	(1,870,434)	(80,923)
<b>Cash and cash equivalents at December 31</b>	<b>₩ 179,487,937</b>	<b>95,936,341</b>





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# Dong-A ST

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Financial Review

# Reaching new heights

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Dong-A ST is built on a spirit of innovation and a commitment to help people around the world live healthy lives. Dong-A ST therefore set its new goal of becoming a 'global pharmaceutical company that is respected for R&D efforts focused on innovative new drugs' in 2017, based on which the company accelerated its pace of innovation by investing in R&D, while expanding its presence in the global market.



# Business Review



## KEY FIGURES

(Unit: KRW billion)

Total Assets

899.8

Sales

554.8

Operating Profit

24.1

Operating Profit Margin

4.3%

\* As of December 31, 2017

Despite volatility and uncertainty we faced in 2017, Dong-A ST opened up a new chapter in its history by setting up a new vision system and thus created momentum for future growth.

Dong-A ST is a pharmaceutical company specializing in ethical (ETC) drugs, overseas business, as well as medical equipment and diagnostics business. As of the end of 2017, the company has developed five in-house original drugs, the most of any Korean pharmaceutical company, thanks to its world-leading R&D competitiveness. In order to become a truly global pharmaceutical company, Dong-A ST is focusing on developing drivers for its sustainable growth, based on the responsible management and outstanding expertise that have been enabled by the establishing of the holding company structure, combined with the company's R&D capabilities.

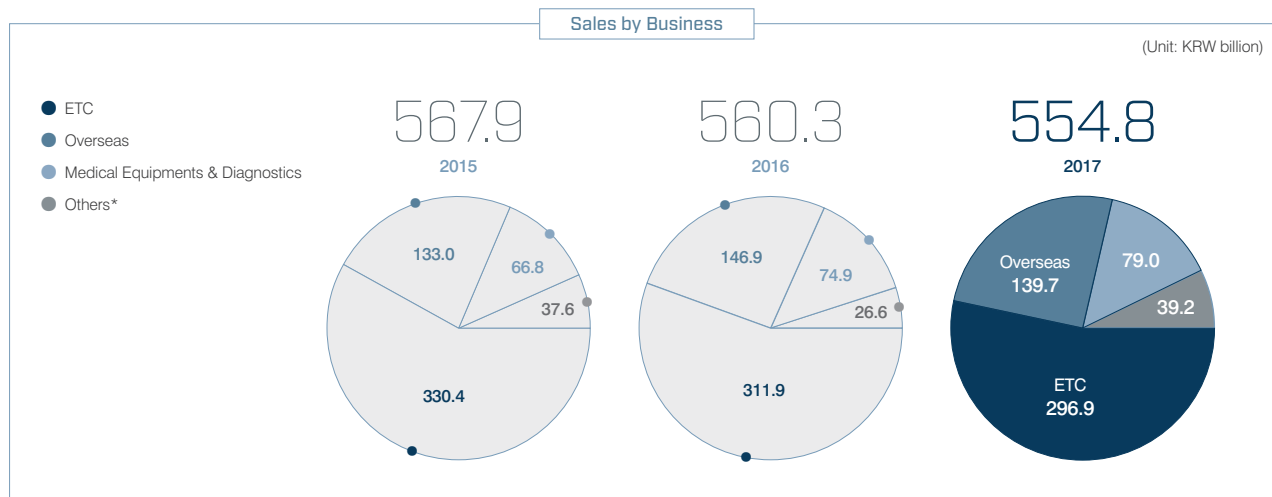


## Business Performance

Dong-A ST reported sales of KRW 554.8 billion in 2017, down 1.0% over the previous year. Operating profits rose by 56.8% year-on-year to KRW 24.1 billion, mainly attributable to cost reduction and expense control, in spite of increasing R&D expenses. The ETC Unit reported sales of KRW 296.9 billion, a year-on-year decrease of 4.8%, due to the end of a strategic alliance agreement with GSK and a price cut for Stillen<sup>®</sup>, the company's main product, after the expiry of its patent. Even in this difficult business environment, sales of new products grew gradually in the market such as Suganon<sup>®</sup>, a diabetes treatment, and Jublia<sup>®</sup>, an onychomycosis treatment. The company also strengthened its product portfolio by expanding its range of licensed-in items, including Contrave<sup>®</sup>, an obesity treatment, and Edarbi<sup>®</sup>, a hypertension treatment. The Overseas Unit generated sales of KRW 139.7 billion, a year-on-year fall of 4.9%. Performance in the first half of the year was a bit slow due to delays in the tender for sales of the human growth hormone Growthropin<sup>®</sup> that was expected to be exported to Brazil from the beginning of 2017. The situation, however, was then normalized and the sales from Growthropin<sup>®</sup> rebounded in the second half of the year. The company's anti-tuberculosis drugs and Bacchus<sup>®</sup> cans continued to show growth. The Medical Equipments & Diagnostics Unit generated sales of KRW 79 billion for the year, up 5.5%, thanks to an expanding product line-up with several new product launches. The Medical Equipment Unit reported sales of KRW 44.3 billion, year-on-year increase of 4.0%, while the sales of the Diagnostics Unit went up 7.0% to record KRW 34.7 billion.

## Future Plans

In 2018, Dong-A ST will leverage its extensive experience in order to lead trends in the fast-changing pharmaceutical market, and will achieve sustainable growth through innovation and the development of new ideas that can be effectively connected to market requirements. In R&D, the company's focus in the short term will be on immune checkpoint inhibitors, as this is an area of great interest to global pharmaceutical companies. In the long-term, the company will put its efforts on dementia where there are substantial unmet needs. Dong-A ST will therefore make major investments toward the relevant R&D. It will also spare no efforts in building a new, first-in-class pipeline through open innovation. In its established businesses, the company will actively license-in new drugs that have the potential to become major sellers, and sales of these items are expected to lead improvements in its business performance. In addition to establishing new products in their respective markets, Dong-A ST will expand its product portfolio by licensing-in more new drugs and by acquiring brands, which will enable the company to achieve a sales turnaround and improve profitability.



\* Others include milestone fees, royalty income and rental income

# Domestic Business

## ETC Unit

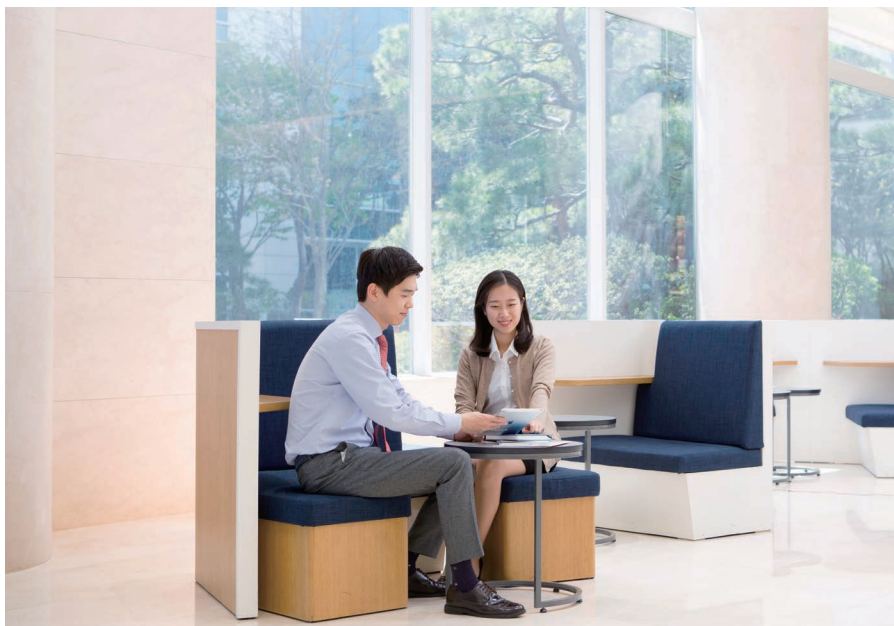
Dong-A ST's ETC Unit supplies around 90 ETC products to approximately 1,000 hospitals and 10,000 clinics throughout Korea, supported by the nation's leading pharmaceutical sales system. ETC products in Korea are categorized into in-house developed original drugs, licensed-in original drugs, bio-pharmaceuticals, and generic products. Dong-A ST has the most in-house developed original drugs in Korea's pharmaceutical industry, with a portfolio that comprises Stillen<sup>®</sup>, Zyderna<sup>®</sup>, Motilitone<sup>®</sup>, Sivextro<sup>®</sup> Tablet/Injection, and Suganon<sup>®</sup>. Around 500 Medical Representatives (MRs) at 17 branches across the nation offer the best medical information, enabling Dong-A ST's products to be prescribed in the right place and at the right time.

Dong-A ST plays a leading role in the pharmaceutical industry through its evidence-based marketing activities. In particular, it has conducted clinical trials comparing generic products with their original drugs, in order to prove the efficacy and safety of the generic products, thereby building customer trust. Dong-A ST has also established the Compliance Program (CP) Management Department, one of the largest such organizations within any Korean pharmaceutical company, and there are also other company-wide efforts being made to strengthen CP. As a result, Dong-A ST received an AA rating for two years in the 2015 CP Evaluation Program carried out by the Korean Fair Trade Commission. In addition, in 2017 Dong-A ST decided to adopt ISO37001, and has thus built the foundations for an impartial and ethical compliance culture and a world-leading anti-corruption management system.

## Key Achievements

According to IMS Health Data, the Korean pharmaceutical market grew by 6.2% in 2017, to reach around KRW 17,129.8 billion in size, with the ETC market seeing year-on-year growth of 6.7%. Despite the government's continued tightening of regulatory policies and changes in the business environment, the Korean pharmaceutical industry is expected to grow continuously due to a westernizing diet trend, an aging population, and greater wealth, all of which have increased requirements for medical services and promoted pharmaceutical R&D.

Nevertheless, the sales of the ETC Unit went down 4.7% compared to the previous year, to record KRW 296.9 billion. This was mainly due to a price cut in Stillen<sup>®</sup> after the expiry of its patent and the end of strategic alliance agreement with GSK, and rapid changes in the external business environment. However, Suganon<sup>®</sup>, an in-house developed diabetes treatment of the Dipeptidyl Peptidase-4 (DDP-4) inhibitor class that was launched in 2016, achieved sales of KRW 6.6 billion in 2017, up 84.5% over the previous year. The company was able to stabilize the sales of new products released last year, and thanks to these new product launches, the ETC Unit managed to turnaround its sale in the second half of the year.



### Production Facilities and Capacity

Plant	Size (m <sup>2</sup> )	Produced Items	Major Products
Cheonan Plant	138,162	In-house developed original drugs and other capsules, tablets and injections	Suganon <sup>®</sup> , Sugamet <sup>®</sup> , Stillen <sup>®</sup> , Motilitone <sup>®</sup> , Zyderna <sup>®</sup>
Dalseong Plant	36,323	Bio-pharmaceuticals	Growtropin <sup>®</sup> , Eporon <sup>®</sup> , Leucostim <sup>®</sup> , Gonadopin <sup>®</sup>

Jublia<sup>®</sup> is the only topical ETC drug for onychomycosis treatment available in Korea that was released in June 2017. Its outstanding treatment effects are similar to those of oral treatments but with fewer or zero side effects, which is the benefit of topical agents. Jublia<sup>®</sup> was originally developed by KAKEN of Japan in 2014, and obtained US Food and Drug Administration (FDA) approval in the same year. It ranks first in sales in the onychomycosis treatment markets in both North America and Japan. Jublia<sup>®</sup> achieved sales of around KRW 4 billion in just six months after its launch in Korea, leading to expectations that it will be Dong-A ST's next-generation blockbuster product. In October 2017, Dong-A ST released Virreal<sup>®</sup> Tab., a hepatitis B treatment. Virreal<sup>®</sup> is an incrementally modified drug (IMD) of Viread<sup>®</sup> Tab., and in order to enhance product reliability and reputation, the company is conducting a phase III clinical trial in 24 institutes across Korea to prove non-inferiority to Viread<sup>®</sup>.



In 2017, Dong-A ST sought to strengthen its product portfolio rapidly and effectively. As a result, the company signed a co-promotion agreement with Kwangdong Pharmaceutical for Contrave<sup>®</sup>, a licensed-in original drug for the treatment of obesity, in September. Kwangdong Pharmaceutical licensed in Contrave<sup>®</sup> from Orexigen in the U.S. Contrave<sup>®</sup> is the only anorectic obesity treatment given in oral dosage form that has received approval from the US FDA and the European EMA. As well as delivering outstanding treatment effects, this non-psychotropic ETC drug is safe, thus allowing long-term prescriptions. Contrave<sup>®</sup> recorded sales of around USD127 million in North America in 2016, marking the highest market share in North America. In December, Dong-A ST signed a co-sales and marketing agreement in Korea with Takeda Pharmaceuticals for Edarbi<sup>®</sup>, a new Angiotensin II Receptor Blocker (ARB) drug for the treatment of hypertension. Edarbi<sup>®</sup> is a hypertension treatment of the ARB class that delivers outstanding hypotensive effects, while also offering an established safety profile. It will be released in the Korean market in early 2018.

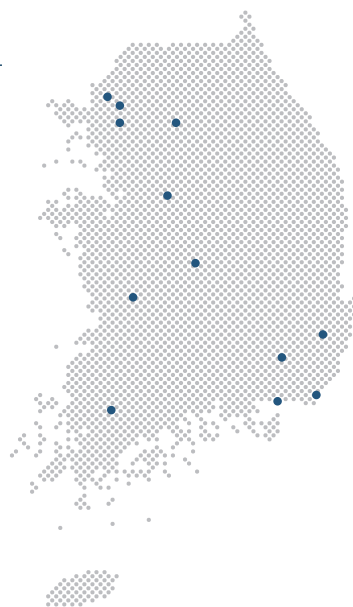
### Future Plans

In 2018, Dong-A ST plans to ensure sustainable growth based on new products, including both in-house developed and licensed-in products. The company will conduct market surveys and analyses which will determine whether to license-in and develop major products. Dong-A ST will also make quick decisions on moving forward with the expansion of its product portfolio. In addition to widening the field activities of its MRs through evidence-based marketing, Dong-A ST will enable rapid and comprehensive new product awareness through targeted marketing in order to develop new blockbuster products for the company.

#### Domestic Network

#### Local Sales Organization

- Seoul Branch
- Anyang Branch
- Ilsan Branch
- Busan Branch
- Daegu Branch
- Changwon Branch
- Gyeongju Branch
- Daejeon Branch
- Cheonan Branch
- Gwangju Branch
- Jeonju Branch
- Wonju Branch



Substantial changes in pharmaceutical market are expected to take place in 2018, from the enactment of the so-called K-Sunshine Act. As part of its efforts to stay agile and remain a step ahead in these changes, Dong-A ST made a decision to adopt ISO 37001 at the end of 2017. This will help Dong-A ST to further improve its CP in 2018, based on which the company will promptly respond to changing market conditions and continue its sales growth in a stable manner.

## Medical Equipments & Diagnostics Unit

The Medical Equipments Unit operates in three specialized areas. In orthopedics, which accounts for the most, it handles products from ZimmerBiomet and ScienceMedic. In medical device, it handles ultrasound equipment from Mindray, surgery equipment from ERBE, and blood pressure equipment from OMRON. In cardiothoracic surgery, it handles products from Medtronic and ZimmerBiomet.

The Diagnostics Unit sells diagnostics and testing equipment, as well as reagents. It distributes the products of Becton Dickinson, DiaSorin, Thermo Fisher, and Energium. In 2017, it expanded its portfolio to include an infection control product from MHHHealthcare, an air sterilizer from ShinyongAirtec, and immunity diagnosis equipment from Ortho Clinical Diagnostics.

### Key Achievements

In 2017, the Medical Equipments Unit focused on expanding its product line-up of medical devices. It released an ultrasound device from Mindray, and formed a supporting sales organization. It also sold a gamma-knife from Elekta. Thanks to these efforts, and a strong performance in orthopedics, the Medical Equipment Unit generated sales of KRW 44.3 billion, year-on-year increase of 3.4%.

The Diagnostics Unit reported sales of KRW 34.7 billion, a year-on-year increase of 7.1%, on the back of stable growth in sales of Becton Dickinson's products and the sales of new products. The Unit has also built foundations for further growth by expanding its product line-up in the fast-growing infection control and immunity diagnosis markets.

### Future Plans

The Medical Equipments Unit is expecting a continuous growth in the medical device products with the release of additional new products. It is focusing on expanding the markets for its ultrasound device and gamma-knife product. The Unit is also developing a micro anthroscope, which is expected to be released as an in-house developed product.

The Diagnostics Unit will grow by increasing sales of existing products and expanding its position in the newly entered market. In particular, it will focus on increasing sales of recently-released infection control and immunity diagnosis products.

# Overseas Business

## Overseas Unit

Dong-A ST's Overseas Unit is in charge of the company's overseas sales. As of the end of 2017, it exports in-house developed original drugs, including Stillen<sup>®</sup> and Zydene<sup>®</sup>, and bio-pharmaceuticals, such as Growtropin<sup>®</sup>, Eporon<sup>®</sup> and Leucostim<sup>®</sup>, to more than 50 countries around the world, across Europe, Latin America, Asia, the Middle East, and Africa. It also exports active pharmaceutical ingredients (APIs), such as Cycloserine, Terizidone, and Atorvastatin, as well as various finished pharmaceutical products, including Closerin<sup>®</sup>. The Overseas Unit is also in charge of exporting Bacchus<sup>®</sup>, Dong-A's flagship brand.

In order to become a global pharmaceutical company, Dong-A ST is striving to increase the market shares of its existing products and to diversify markets. The company is also aiming to build a global network through strategic alliances with overseas companies, and by conducting overseas clinical trials. To reach the goals, Dong-A ST is hiring outstanding talent with global capabilities and offers them comprehensive training on a regular basis, such as our Training Road Map.

## Key Achievements

In 2017, Dong-A ST's Overseas Unit generated sales of KRW 139.7 billion, a decrease of 4.9% year-on-year, caused by the impact of exchange rates, and various other factors. The company's most important businesses are exports of bio-pharmaceuticals to Brazil and Turkey, anti-tuberculosis drug sales to the World Health Organization (WHO), and Bacchus<sup>®</sup>, which is exported to Southeast Asia, Latin America, and the Middle East.

The sales of the bio-pharmaceutical sector went down 19.3% from the previous year to record KRW 37.1 billion, mainly due to sluggish sales of the human growth hormone Growtropin<sup>®</sup> from slight delay on tender, which is the end market. Sales of anti-tuberculosis drugs remained stable at KRW 29 billion, a year-on-year increase of 5.4%. A considerable proportion of anti-tuberculosis sales are to the WHO – Dong-A ST has been taking part in the WHO's international tenders for anti-tuberculosis drugs since 2013, and in 2017, it won 45% of total WHO anti-tuberculosis drug tenders. The company supplies Closerin<sup>®</sup>, an anti-tuberculosis drug in oral dosage form, and Cycloserine, an API of Closerin<sup>®</sup>.

The Bacchus<sup>®</sup> sector reported sales of KRW 65.3 billion, up 3.3% year-on-year. Sales of a Bacchus<sup>®</sup> remained strong in Cambodia, while expanding its presence to include Myanmar and Guatemala. In addition, in 2017 Dong-A ST also signed new supply contracts to supply Bacchus<sup>®</sup> to Pakistan and Saudi Arabia, which will contribute to mid- to long-term sales growth. Dong-A ST also exported 1.26 million cans of the soft drink Olatte<sup>®</sup> to Cambodia, which has successfully positioned that product in the market.



## Overseas Network



- Dong-A America Corp. (California, U.S)
- Dong-A Brasil Farmaceutica Ltda. (Sao Paulo, Brazil)
- Indian Office (Mumbai, India)



### Major Export Products

(Unit: KRW billion)

Category	Product Name	Indication	Major Export Countries	Sales in 2016	Sales in 2017	Change (%)
Bio-pharmaceutical	Growtropin®	Human growth hormone	Brazil	35.7	28.6	-19.9%
	Eporon®	Renal anemia treatment	Turkey	5.8	5.4	-7.5%
Tuberculosis Treatment	Cycloserine	Tuberculosis (API)	India	6.1	8.9	45.7%
	Closerin®	Tuberculosis (Finished product)	WHO (Europe)	12.3	12.4	1.1%
	Terizidone	Tuberculosis (API)	S. Africa	9.1	7.7	-15.8%
Bacchus®		Energy Drink	Cambodia	63.2	65.3	3.3%

Dong-A ST is focused on building a global network, so that it can establish a stronger presence in the global pharmaceutical market. The company is therefore forming strategic alliances with companies around the world to enter both developed and emerging markets. In 2017, a strategic business alliance in bio-pharmaceuticals was established with Rooyan Darou of Iran, which will be the foundation for exports to the Middle East, including Iran. In early 2018, the construction of PT Combiphar Dong-A Indonesia biopharmaceutical plant was completed, the result of joint investments made by Dong-A ST and Combiphar, a pharmaceutical company in Indonesia. The two companies had previously formed a strategic alliance for mid- to long-term growth, and the joint investments into the new plant are a major part of that alliance. Dong-A ST now has a bridgehead in Indonesia, and by continuing close cooperation, the company will strive to ensure successful entry into the Indonesian bio-pharmaceutical market.

Dong-A ST has two overseas subsidiaries and one overseas office – the Brazilian subsidiary, Dong-A Brasil Farmaceutica, is located in São Paulo, the US subsidiary, Dong-A America, is located in California, and the Indian office is in Mumbai.

### Future Plans

In 2018, Dong-A ST's Overseas Unit will continue its growth by exploring new markets for its major products, strengthening product portfolio, and developing new businesses. In anti-tuberculosis drugs sector, the company will expand its business portfolio and targeted market by implementing a dual price strategy and diversifying sources of APIs in order to respond actively to conditions in existing markets. In addition, Dong-A ST will continue to expand its presence in beverages by exporting items such as Olatte® and Honey lemon®. The Overseas Unit will create new business by exporting APIs to generic pharmaceutical markets, as well as products that can meet local market needs. The Overseas Unit will continue to establish strategic alliances and partnerships with overseas companies to build a long-term global business network.





## KEY FIGURES

R&D Investment<sup>1)</sup>

81.2 KRW billion

R&D Investment per Sales

14.6%

R&D Personnel

237 Person

\* As of December 31, 2017

<sup>1)</sup> R&D expenses and the R&D expenses from production costs

The pioneering spirit in research combined with extensive experiences in development will enable Dong-A ST to develop innovative new drugs, while ensuring sustainable growth of the company.

## Dong-A ST Research Center

In 2017, Dong-A ST established a new vision, aiming to become 'a global pharmaceutical company that is known for innovative new drug-centered R&D'. The Dong-A ST Research Center is the driving force behind the company's R&D, enabling it to become a global pharmaceutical company. The Research Center was founded in 1977, and ever since then, Dong-A ST has made bold investments in R&D, focusing on research to develop new drugs. As a result, Dong-A ST has the most in-house developed original drugs of any Korean pharmaceutical company. The company successfully released Stille<sup>®</sup>, a gastritis treatment, in 2002, which was followed by the launch of Zyderna<sup>®</sup>, the first erectile dysfunction treatment in Korea, in 2005, and Motilitone<sup>®</sup>, a functional dyspepsia treatment, in 2011. Sivextro<sup>®</sup> is an oxazolidinone class antibiotic which Dong-A ST licensed out for development in the global market in 2007. It was successfully launched in the U.S. in 2014 and Europe a year later, and received New Drug Application (NDA) approval in Korea in 2015. Suganon<sup>®</sup>, a diabetes treatment of the DPP-4 inhibitor class, was launched in 2016, once again proving Dong-A ST's outstanding R&D expertise.

In 2017, Dong-A ST reorganized its R&D structure based on functions, including the synthesis of new substances, evaluation of efficacy, developing base technology, and CMC research, with a goal of improving operational efficiency in R&D and concentrate the company's research capabilities. This will enable the company to acquire the expertise needed across all R&D functions and at each phase of R&D, and thus move towards first-in-class new drug development through the autonomous and dynamic operation of research projects.

Dong-A ST implements a two-track R&D strategy consisting of global projects and domestic projects. In its global projects, the company focuses on discovery research in order to develop innovative new drugs that can be recognized for their value in the global market. For its domestic projects, Dong-A ST will quickly develop products that can expand market share through market-centered decision-making.

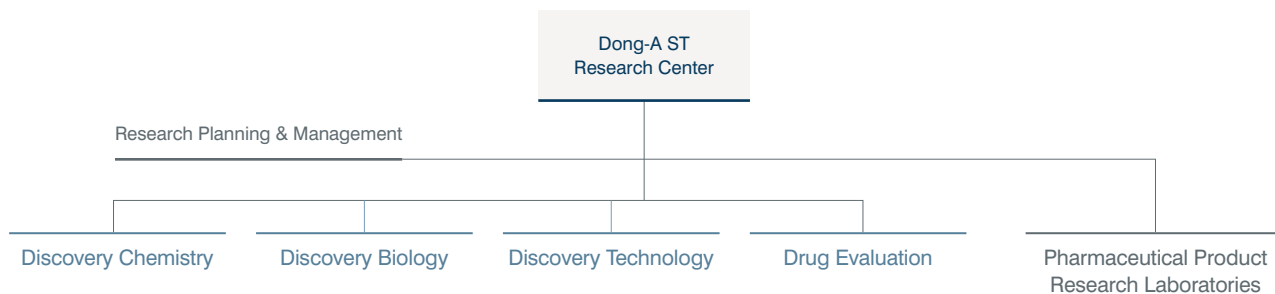
## Key Achievements

In 2017, Dong-A ST achieved outstanding results in R&D, including the release of new products and global clinical trials as well as joint research with global pharmaceutical companies. In Korea, Dong-A ST has selected high-value products which reflect the needs of current market. Also, Dong-A ST has concentrated on acquiring independent platform technologies, such as formulation study using the state-of-the-art technology and development of IMDs. As a result, Dong-A ST was able to unveil Dutavan<sup>®</sup> Soft Cap., a benign prostatic hyperplasia treatment with a more user-friendly tablet size. It also developed Togenon<sup>®</sup> Tab., a Statin-ARB combination drug treatment for hyperlipidemia and hypertension, and released Virreal<sup>®</sup> Tab., a hepatitis B treatment which is an IMD of Viread<sup>®</sup>.

Dong-A ST also accomplished noticeable achievements in global development. In its new chemical entities, a phase I clinical trial was completed in Europe for DA-8010, a treatment for overactive bladders. In addition, a phase 1a clinical trial has been completed in the U.S. for DA-1241, a diabetes treatment based on a new mechanism (GPR-119 agonist), and preparations are now under way for the next clinical trial. In botanical drugs, the company worked on establishing overseas partnerships for the global market entry of DA-9803, a treatment for Alzheimer's disease, and DA-9801, a treatment for diabetic neuropathy. As a result, in early 2018, Dong-A ST signed agreements for license-out of DA-9801 for diabetic neuropathy treatment, and for technology transfer of DA-9803, an Alzheimer's disease treatment, with NeuroBo Pharmaceuticals of the US. DA-9805, a treatment for Parkinson's disease, obtained phase II clinical trial approval from the US FDA, and the phase II clinical trial is now under way.

Dong-A ST is actively undertaking collaborative research in Korea and overseas. The company signed a joint research agreement for an innovative Immuno-oncology drug development with AstraZeneca, a global pharmaceutical company, in early 2018. The two companies will cooperate to generate lead compounds. This agreement has proven Dong-A ST's ability in developing innovative drugs in the field of immunotherapy through its in-house developed MerTK inhibitor program (DA-4501), which was licensed out to AbbVie in late 2016. This also reflects global market recognition of Dong-A ST's strong R&D capabilities in Immuno-oncology area.

Dong-A ST Research Center Organization



In the domestic market, Dong-A ST signed an MOU with ABL Bio for new antibody drug development. It also signed a license-out agreement on DA-6034, a gastritis and xerophthalmia treatment, with GL PharmTech, and a joint research agreement on the development of an alopecia treatment with CureBio. Dong-A ST also signed a joint research agreement with the Yonsei University Health System to develop a treatment for hereditary hearing loss, and hosted the '1st Dong-A ST Open Innovation Research Project' contest in order to strengthen cooperation between industry and academia. The fields covered by the contest include basic research on Immuno-oncology biology, research on an expansion of the indication for its R&D pipeline, and general research. This will generate synergy between Dong-A ST's market-centered R&D and the academic sector's creative research into fundamentals.

## Future Plans

The pharmaceutical industry is facing slower growth and lower R&D productivity as a result of factors including the expiration of patents on blockbuster drugs and falling drug prices. In order to overcome these challenges, Dong-A ST has established a series of phased goals, with the ultimate goal of developing first-in-class new drugs. In the short term, the company will focus on the field of anti-cancer, where there are still many unmet needs. For the long-term, Dong-A ST will put its research efforts on degenerative brain disease, and will identify projects that support a strategy of global licensing in the early study stage, such as from candidate molecule to pre-clinical study. In addition, Dong-A ST will strengthen its pipeline and platform research capabilities and generate synergy in R&D through open innovation and collaboration with domestic and overseas universities and research institutes. The company will also develop projects through global partnerships, expand its networks, and always seek to adopt new technologies.



## R&D History

1977

Established the central research institute in Yongdu-dong, Dongdaemun-gu, Seoul, Korea

1979

Developed the world's third antibiotics, Talampicillin®

1981

Received the Invention Award for the production method for beta lactam antibiotics

1988

Released AIDSIA®, Korea's first ever first-generation AIDS diagnostic reagent

Constructed the industry's first Korea Good Laboratory Practice (KGLP)-compliant research center in Sanggal, Gyeonggi, Korea



1991

Received the IR52 Jang Young Shil Award for AIDSIA®

1993

Developed Growtropin®, a first-generation biomedicine and human growth hormone

1994

Released Interferon-alfa™, a first-generation biomedicine and multiple myeloma treatment

Developed the world's first simultaneous diagnostic reagent for AIDS and hepatitis C

Acquired the Korea Good Technology mark for AIDSIA®, an AIDS diagnostic reagent

1997

Became the first in Korea to develop a tuberculosis treatment, Closerin®

1999

Released Leucostim®, a first-generation biomedicine and neutropenia treatment, and Eporon®, a renal anemia treatment



1977



2002  
Released Stiller<sup>®</sup>, Dong-A's first in-house developed original drug and a phytomedicine for gastritis

2005  
Released Zydene<sup>®</sup>, Dong-A's second in-house developed original drug and an erectile dysfunction treatment

2006  
Released Gonadopin<sup>®</sup>, a first-generation biomedicine and infertility treatment

2007  
Licensed out Sivextro<sup>®</sup> (Tedizolid), an oxazolidinone class antibiotic, to Trius Therapeutics of the US (currently Merck & Co.) for the worldwide territory except Korea

Received the IR52 Jang Young Shil Award for Zydene<sup>®</sup>

2011  
Released Motilitone<sup>®</sup>, Dong-A's third in-house developed original drug and a phytomedicine for functional dyspepsia



2012  
Licensed out Evogliptin, DPP-4 inhibitor for type 2 diabetes treatment, to Luye Pharma Group of China for the Chinese market

Licensed out Monotaxel<sup>®</sup>, an Incrementally Modified Drug (IMD) for cancer, to Gloria Pharmaceutical of China for the Chinese market

Received the IR52 Jang Young Shil Award for Motilitone<sup>®</sup>

Licensed out Evogliptin to Alkem Laboratories of India for the Indian and Nepali markets



2013  
Established a Korea's first dementia research center

2014  
Licensed out DA-3880 (Darbepoetin- $\alpha$  biosimilar), a long-acting biopharmaceutical drug stimulating erythropoiesis, to Sanwa Kagaku Kenkyusho (SKK) of Japan for the Japanese market

Obtained US FDA approval and launched Sivextro<sup>®</sup> (Tedizolid), in the US by Cubist (currently Merck & Co.)

Signed an Memorandum of Understanding (MOU) with the University of Freiburg in Germany on joint research of dementia and anti-cancer treatments

Licensed out Evogliptin to Eurofarma Laborat6rios of Brazil for the Brazilian market



2015  
Obtained European Commission (EC) approval and launched Sivextro<sup>®</sup> (Tedizolid) in European countries

Licensed out Evogliptin to Eurofarma Laborat6rios of Brazil for 17 countries in Latin America

Licensed out Evogliptin to GEROPHARM of Russia for the Russian, Ukrainian and Kazakhstan markets

Released Dulastin<sup>®</sup> (PEG-G-CSF), a long-acting biopharmaceutical drug for neutropenia

2017  
Signed an agreement with Yonsei University Health System on joint research for development of a treatment for genetic hearing loss

Signed an MOU on developing a new antibody drug with ABL Bio

Signed an agreement with CureBio on joint research on an alopecia treatment



2016  
Released Stiller<sup>®</sup> 2X, an Incrementally Modified Drug (IMD) of Stiller<sup>®</sup>

Released Suganon<sup>®</sup> (Evogliptin) and Sugamet<sup>®</sup> XR (combination product of Evogliptin and metformin), Dong-A's fifth in-house developed original drug and a type 2 diabetes treatment

Made a collaboration agreement with Beactica of Sweden to develop new cancer treatments

Licensed out MerTK inhibitors, cancer immunotherapy pipeline, to AbbVie Biotechnology for the worldwide territory except South Korea

2017

# R&D Pipeline

Code Name (Brand Name)	Description	Indication	Development Stage	Licensing Availability
<b>New Chemical Entity</b>				
<b>Tedizolid (Sivextro®)</b>	Oxazolidinone class antibiotic	Infection (ABSSSI, Acute Bacterial Skin and Skin Structure Infections)	Launched (USA, EU, etc.)	-
		Pneumonia (Hospital-Acquired/ Ventilator-Associated Bacterial Pneumonia)	Ph III (Global)	-
<b>Evogliptin (Suganon®/ Sugamet® XR)</b>	DPP(Dipeptidyl Peptidase)-4 inhibitor	Type 2 diabetes	Launched (Korea)	Available for some territories
<b>DA-6886</b>	5-HT (Hydroxytryptamine)4 agonist	Irritable bowel syndrome-constipation	Ph I completed (Korea)	Available
<b>DA-8010</b>	M <sub>3</sub> receptor antagonist	Overactive bladder	Ph I completed (EU), Ph II planned (Korea)	Available
<b>DA-1241</b>	GPR119 agonist	Type 2 diabetes	Ph Ia completed (USA)	Available
<b>DA-4501</b>	Novel IO target	Cancers, etc.	Drug discovery	-
<b>Phytomedicine (Botanical Drug)</b>				
<b>DA-9701 (Motilitone®)</b>	Botanical drug	Functional dyspepsia	Launched (Korea) Ph II (USA)	Available
<b>DA-9801</b>	Botanical drug	Diabetic neuropathy	Ph II completed (USA)	-
<b>DA-9803</b>	Botanical drug	Alzheimer's disease	Non-clinical completed (Korea)	-
<b>DA-9805</b>	Botanical drug	Parkinson's disease	Ph II (USA)	Available
<b>Biopharmaceutical Products</b>				
<b>DA-3801 (Gonadopin®)</b>	Recombinant FSH (Follicle Stimulating Hormone)	COH (Controlled Ovarian Hyper-stimulation) in ART	Launched (Korea)	Available for some territories
		Ovulation induction in anovulatory women	Launched (Korea)	
<b>DA-3031 (Dulastin®)</b>	PEG-G-CSF (Pegylated-Granulocyte-Colony Stimulating Factor)	Neutropenia	Launched (Korea)	Available
<b>DMB-3111</b>	Trastuzumab biosimilar	Breast cancer	Ph I completed (Japan)	Available except Korea, Japan, EU, Russia, CIS and Latin America
<b>DA-3880</b>	Darbepoetin α biosimilar	Anemia	Ph I completed (EU) Ph III (Japan)	Available for some territories
<b>DA-3131</b>	New anti-VEGF mAb	Age-related macular degeneration	Non-clinical completed (Korea)	Available
<b>DMB-3115</b>	Ustekinumab biosimilar	Psoriasis	Non-clinical (UK)	Available except Korea and Japan

## Key Pipeline Items

**Tedizolid; Sivextro®** Tedizolid is a second generation oxazolidinone class antibiotic developed for both intravenous and oral administration to treat serious gram-positive infections, including those caused by Methicillin-Resistant Staphylococcus Aureus (MRSA). In 2007, Dong-A ST licensed-out Tedizolid to US-based Trius Therapeutics (acquired by Cubist, in turn acquired by MSD) for all territories except Korea. Since then, Trius has developed Tedizolid from phase I to phase III clinical trials for the indication of Acute Bacterial Skin and Skin Structure Infections (ABSSSI); these trials have demonstrated that Tedizolid, with shorter course of therapy, was statistically non-inferior to the same class market competitor in the primary and secondary efficacy endpoints. Tedizolid also showed a better safety profile than its competitor, and is expected to improve patient compliance, as it only has to be taken once daily. Cubist/Merck launched Tedizolid under the brand name Sivextro® following an NDA approval from the US FDA in June 2014. In

addition, marketing authorization for Sivextro® was granted by the European Medicines Agency (EMA) in the 1st half of 2015, so Sivextro® has been marketed in Europe, starting in the UK. Also, Bayer, the sublicensee of Sivextro has been marketing Sivextro® in Asia, Latin America, African and other territories. There is also an on-going global phase III study for hospital-acquired/ventilator-associated bacterial pneumonia (HABP/VABP).

**Evogliptin; Suganon®/Sugamet® XR** Evogliptin is an anti-diabetic compound of the Dipeptidyl Peptidase-4 (DPP-4) inhibitor class, with high selectivity for DPP-4. A phase I clinical trial of Evogliptin showed that a single administration of Evogliptin 5mg inhibited DPP-4 activity by more than 80%, and a repeated once daily dose of Evogliptin 5mg maintained the inhibition of DPP-4 for more than 24 hours. In the phase II clinical trial, it was confirmed that Evogliptin 5mg significantly decreased HbA1C levels compared to a placebo. In phase III studies, Evogliptin 5mg showed superiority over the placebo, and non-inferiority to Sitagliptin. Evogliptin does not need dose adjustment in patients with renal impairment and showed a renal protective

effect in animal studies, which would be beneficial to diabetic patients with renal disease. Suganon® (Evogliptin mononotablet) and Sugamet® XR (a fixed-dose combination tablet of Evogliptin and an extended release form of Metformin) were launched in Korea in 2016.

For the global markets, with strong points of Evogliptin, Dong-A signed licensing-out agreements with Luye Pharma Group for China, Alkem Laboratories for India and Nepal, respectively, in 2012. Dong-A also made a license-out agreement with Eurofarma Laboratórios for the territory of Brazil in 2014 and signed an additional license-out agreement for 17 countries in Latin America in 2015. Also, Evogliptin was licensed to Geropharm for the Russian and other CIS markets (Ukraine, Kazakhstan) in 2015.

**DA-9801** DA-9801 is a botanical drug, a mixture of Dioscorea Rhizome and Dioscoreae Nipponicae Rhizoma in tablet form, for pain associated with diabetic neuropathy. Its main mechanism is considered to lift levels of Nerve Growth Factor (NGF) back to normal, which leads to nerve regeneration. DA-9801's

efficacy in pain reduction and nerve regeneration has been confirmed in various non-clinical animal disease models.

A 12-week Phase II study in the US was completed successfully. DA-9801 300 mg and 600 mg groups showed a statistically significant reduction of more than 2 points in mean pain scores at Week 12, in comparison to their respective baseline scores. In addition, improvements of 50% or more were achieved in 46.9%, 50%, and 43.8% of the patients in the 300 mg, 600mg, and 900mg groups, respectively.

In March 2016, the safety and efficacy of the Phase II results and the plans for a Phase III study were confirmed at the End of Phase II meeting with the FDA. Through this meeting and the Chemistry, Manufacturing and Control (CMC) meeting with the FDA, all categories that must be addressed ahead of market release have now been discussed and confirmed.

Since the CNS drugs or anti-depressants that are commonly used to treat diabetic neuropathy cause side effects such as dizziness and somnolence, there is market demand for a new, safe treatment. It is believed that DA-9801 will be a new treatment option for diabetic neuropathic pain with its comparable efficacy and favorable safety profile. The potential of DA-9801 has been recognized in the global pharmaceutical market as well. As a result, Dong-A ST signed a license-out agreement with NeuroBo Pharmaceuticals of the U.S. in January 2018. NeuroBo Pharmaceuticals is a venture company specializing in the development of neuroscience-based botanical drugs, and will be in charge of global clinical development and approval as well as sales of DA-9801.

**DA-9803** DA-9803, a multimodal botanical drug, is a pre-clinical candidate substance that is being developed as an Alzheimer's treatment. It offers special benefits compared to other treatments in that it eases symptoms and improves the cause of the illness by enhancing cognitive skills by restraining beta amyloid (A $\beta$ ) buildup and tau phosphorylation, which are known as the main cause of Alzheimer's. Preclinical study results confirm that DA-9803's effects include improving cognitive skills as well as protecting nerve cells and making improvements in relation to the illness. Joint research conducted with Harvard University, which has the world's most advanced technologies in relation to Alzheimer's research, indicates that DA-9803 delivers outstanding effects in restraining A $\beta$  buildup and Ca $^{2+}$  overload. Also, its effect of restraining AChE and improving cognitive skills in a scopolamine-caused memory impairment model was confirmed by a pre-clinical study. This is why there is anticipation of a high possibility of clinical success compared to other company pipelines. A license-out agreement was signed with NeuroBo Pharmaceuticals in the US on DA-9803 in January 2018. Accordingly, NeuroBo Pharmaceuticals will take charge of global clinical development and approval as well as sales of DA-9803.

**DA-9805** DA-9805 is a proprietary botanical drug consisting of three bioactive ingredients designed as an oral pill for the treatment of Parkinson's Disease (PD). DA-9805 is being developed as a potential disease-modifying treatment for PD due to its prevention

against dopaminergic neurodegeneration via multiple effects. In preclinical studies, DA-9805 demonstrated anti-Parkinsonian efficacy with reduced neuronal loss and improved behavior outcomes in PD animal models. No toxicity was observed in acute and chronic GLP toxicity studies. Dong-A ST gained an IND approval from the US FDA in March 2017 and a phase II study has initiated with PD patients which is expected to be completed in 2019. Recently, a team led by Dr. Ted Dawson at Johns Hopkins University who is a world authority on Parkinson's disease research confirmed that DA-9805 restrains abnormal aggregation of a -synuclein, which is known as a causative agent of Parkinson's disease, in mice with Parkinson's disease, and thus improves the symptoms of Parkinson's disease.

**DA-9701; Motilitone<sup>®</sup>** Motilitone<sup>®</sup> is an herbal medicine containing Corydalis Tuber and Pharbitis Seed extracts for the treatment of Functional Dyspepsia (FD). Motilitone<sup>®</sup> works by enhancing gastric emptying as well as improving gastric accommodation and visceral hypersensitivity in FD patients. It is the only FD drug that exhibits this triple mode of action, and acts through 5-HT $_4$ , 5-HT $_{1A}$  and  $\alpha_2$ -adrenergic agonism as well as D $_2$  antagonism. A phase II and a non-inferiority phase III trial have been conducted in Korea, which have shown that Motilitone<sup>®</sup> has potential as a safe and effective therapeutic drug for FD patients. The product was approved for marketing in Korea in 2011. A phase II study in USA is ongoing to study efficacy and safety of Motilitone<sup>®</sup> in individuals with Rome III defined FD. The study is supposed to be completed by the first half of 2018.

**DA-1241** DA-1241 is a novel small molecule of GPR119 agonist for type 2 diabetes. DA-1241 showed higher potency and efficacy than its competitors via in vitro and in vivo tests. In addition to the glucose-lowering efficacy of DA-1241, it also effectively inhibited postprandial increase of plasma lipid levels in mice, at the dose showing glucose lowering effect. Therefore, it is expected that DA-1241 can offer therapeutic benefit for the treatment of type 2 diabetic patients with dyslipidemia by controlling postprandial lipid as well as glucose levels, at same dose range. Also, potential for treating NASH was shown in the animal model. Based on its PK profile in animals, it was expected that DA-1241 has a feasibility of once-daily dosing in human and phase Ia study in the US confirmed the long half-life, feasible for once-daily dosing, of DA-1241.

**DA-8010** DA-8010 is a novel muscarinic receptor 3 antagonist being developed for the treatment of OAB/UI (overactive bladder/urinary incontinence). As muscarinic receptor antagonists [current gold standard for overactive bladder] have the limitations of intolerable and frequent side effects (i.e. dry mouth, constipation and tachycardia), there still are unmet needs. DA-8010 is a highly potent M $_3$  antagonist with affinity (more potent than its main competitor), and highly selective for urinary bladder over salivary gland, large intestine and heart in preclinical studies, compared with other antimuscarinic agents. Such high potency and selectivity of DA-8010 will provide therapeutic benefit with less frequency/degree of side effects observed in other antimuscarinic agents. The Phase I study was successfully completed in EU, and

the IND for phase II study in Korea was submitted to the MFDS (Korea FDA) in early 2018.

**DA-3880** DA-3880 is a biosimilar of darbepoetin alfa which stimulates erythropoiesis (increases red blood cell levels), and is used to treat anemia associated with chronic renal failure and cancer chemotherapy. Darbepoetin alfa has a longer half-life than erythropoietin, resulting in less frequent administrations. Due to the complex glycosylation, development of a darbepoetin alfa biosimilar is known to be difficult. However, a high similarity of DA-3880 to the reference product was demonstrated through non-clinical and European phase I clinical studies. In January 2014, Dong-A ST signed a licensing agreement with Sanwa Kagaku Kenkyusho (SKK) of Japan for DA-3880 that completed phase I clinical study, and has been conducting phase III clinical study in Japan. For the global market, Dong-A ST is preparing for phase III clinical trials with global scope.

**DA-4501** DA-4501 is a first-in-class drug discovery program aiming at developing a small molecule drug that inhibits MER tyrosine kinase (MerTK). MerTK is a member of TAM (Tyr $^3$ , Axl, and MerTK) family receptor tyrosine kinases, and best known to drive tolerogenic clearance of apoptotic cells. Inhibition of MerTK therefore is anticipated to expose dying tumor cells to immune surveillance and thereby increase the chance of triggering host immunity against cancer cells. Dong-A has initiated a MerTK inhibitor program in 2013, and has been able to come up with a series of MerTK inhibitors with unprecedented specificity. In December 2016, Dong-A ST and AbbVie Biotechnology entered into a Development and License Agreement. Dong-A ST and AbbVie will collaborate until the IND submission and AbbVie will be responsible for clinical development, regulatory approval and commercialization.

**DMB-3111** DMB-3111 is a biosimilar of Trastuzumab, which is a monoclonal antibody that interferes with the HER2 receptor. Its main use is to treat for metastatic/early breast cancer and metastatic gastric cancer. DMB-3111 is one of the assets in co-development with Meiji Seika Pharma of Japan, and the results of the Japanese phase I clinical trial showed high similarity with the reference product. Based on these results, in October 2016 Dong-A ST contracted with a European company, Gedeon Richter, for the development and commercialization of DMB-3111 in Europe, Russia, CIS and Latin America.

**DMB-3115** As the second wave biosimilar, Dong-A and Meiji Seika Pharma are developing new monoclonal antibody biosimilar, DMB-3115, a biosimilar of Ustekinumab. Ustekinumab is directed against interleukin 12 and interleukin 23, naturally occurring proteins that regulate the immune system and immune-mediated inflammatory disorders. Ustekinumab is indicated for the treatment of adult patients with active psoriatic arthritis, moderate to severe plaque psoriasis, and moderately to severely active Crohn's disease, and additional indication was approved for adolescent patients with moderate to severe plaque psoriasis in 2017. DMB-3115 is under non-clinical development, targeting to be the first biosimilar in the Ustekinumab biosimilar space.

# Key Products

## In-house Developed Original Drugs

**Stillen® Tab.**  
Gastritis Treatment



Stillen® Tab. is Dong-A ST's first in-house developed original drug, and it is a treatment for gastritis with main ingredients of eupatiliin and jaceosidin, extracted from the herb Artemisia. Developed in 2002 as Korea's first independently developed cytoprotectant drug, it has proven its outstanding efficacy and safety and led the Korean cytoprotectant drug market while maintaining the highest market share. Dong-A ST launched Stillen® 2X Tab., an incrementally modified drug (IMD) of Stillen®, in 2016, which is taken twice a day instead of the previous three times a day thanks to the use of floating technology.

**Zydena® Tab.**  
Erectile Dysfunction Treatment



Zydena® Tab. was developed by Dong-A ST in 2005 as the first oral erectile dysfunction drug in Korea, and the fourth worldwide. It entered the Russian market in 2008, and is currently exported to six countries. Zydena® comes in four dose forms – 50 mg, 75 mg, 100 mg and 200 mg – with the dosage controlled based on symptoms. Research on various other indications, including pulmonary arterial hypertension and dementia, is being conducted. There is anticipation of an expansion in the application scope.

**Motilitone® Tab.**  
Functional Dyspepsia Treatment



Motilitone® Tab. is an in-house developed original drug of Dong-A ST that was launched in 2011. As a botanical drug, its main ingredients are extracts of corydaline and pharbitis. It is the only functional dyspepsia treatment that offers a triple action – 5-HT1 agonist, 5-HT4 agonist, and D2 antagonist. Motilitone® ranked No. 1 in market share in the Korean functional dyspepsia market in 2017.

**Sivextro® Tab./Inj.**  
Oxazolidinone Class Antibiotic



Sivextro® is an antibiotic that Dong-A ST has licensed out for development. It received US FDA approval in June 2014, European Medicines Agency (EMA) approval in March 2015, and the approval from Korean Ministry of Food and Drug Safety (MFDS) in 2015. It has demonstrated outstanding efficacy for Acute Bacterial Skin and Skin Structure Infections (ABSSSI) in clinical trials, and also shown an excellent safety record compared to competitor products. A global multi-center phase III clinical trial is under way to verify additional effects for the treatment of pneumonia.

**Suganon® Tab.**  
Diabetes Treatment



Suganon® is a type 2 diabetes treatment of the DPP-4 inhibitor class that was developed by Dong-A ST through its in-house capabilities, and was launched in 2016. Also released was Sugamet® SR Tab., a combination drug comprised of Suganon® and Metformin. Taken once a day in tablet form, Suganon® provides blood sugar regulation effects for 24 hours, and can be prescribed safely for it has fewer side effects. There is no need for dose adjustment for renal disorder patients, but careful administration is required for moderate and serious renal disorder patients. Research and development is underway for a combination drug to treat multiple chronic diseases, especially for patients with metabolic syndrome.

## Incrementally Modified Drugs

**Stillen® 2X Tab.**  
Gastritis Treatment



Dong-A ST used floating technology for Stillen® 2X, an IMD of Stillen®, which extends gastric emptying time to increase the drug retention. This enables Stillen® 2X to offer the same efficacy and effects as the original drug with fewer administrations – twice a day, not the previous three times. Dong-A ST aims to solidify its share of the cytoprotectant agent market by providing wider treatment options through Stillen® and Stillen® 2X.

**Orodipine® Tab.**  
Hypertension Treatment



Orodipine® Tab., a calcium channel blocker (CCB) and an oral hypertension treatment, is an IMD that used amlodipine orotate. As of the end of 2017, it recorded the fifth highest share of the amlodipine market in Korea.

**Orosartan® Tab.**  
Hypertension Treatment



Launched in 2013, Orosartan® Tab. is an IMD of Exforge®. This oral hypertension treatment is a combination drug comprising an Angiotensin II Receptor Blocker (ARB) and a CCB. A phase IV clinical trial was completed for comparison with an ARB/diuretic combination drug, resulting in distinctiveness from competing products.

**Virreal® Tab.**  
Hepatitis B Treatment



Virreal® (Tenofovir) is a hepatitis B treatment, and is an IMD of Viread®. It is the first ETC item to adopt a 7-day pill organizer and an application that alerts patients of the medicine-taking time. This product is aimed at improving drug compliance for patients. Also, a non-inferiority clinical trial is underway on naive patients, and thus medical evidence is expected to be established.

## Biological Products

**Growtrophin II® Inj.**  
Human Growth Hormone



Growtrophin® is a human growth hormone that was developed in-house by Dong-A ST using its state-of-the-art gene recombination technologies. Available in such various forms as liquid form and pen device, it provides greater patient convenience. It has an indication of low height resulting from impaired growth hormone secretion in young children and Idiopathic Short Stature (ISS).

**Leucostim® Inj.**  
Neutropenia Treatment










Leucostim® is a neutropenia treatment, the main ingredient of which is filgrastim. It was developed in-house by Dong-A ST, and has been produced and sold since 1999. Backed by its price competitiveness, it is currently prescribed at around 70 general hospitals, at a price that is as much as 49% lower than the market leader.

**Dulastin® Inj.**  
Neutropenia Treatment



Dulastin® was Korea's first in-house developed PEG-G-CSF medication, and was launched in 2015. PEG has been combined with Leucostim® for long-lasting medicinal effects. Only one administration per chemotherapy cycle is needed, resulting in increased injection convenience for medical staff and enhanced patient compliance, and the price is 24% cheaper than the previous PEG-G-CSF medication. It passed Drug Committee scrutiny, available to be prescribed at around 40 general hospitals.

Licensed-in Original Drugs		
<b>Acelex® Cap.</b> Ostarthritis Treatment		Acelex® was released in September 2015 as the 22nd new drug in Korea. The main ingredient of this selective cyclooxygenase-2 (COX-2) inhibitor is polmacoxib. It accounts for the second highest share of the COX-2 inhibitor market, and is prescribed at approximately 100 general hospitals across the nation.
<b>Flivas® Tab.</b> Benign Prostatic Hyperplasia Treatment		Flivas® is the first alpha-blocker to have high selectivity for the α1d receptor. It is effective against dysuria symptoms of prostatic hyperplasia. It also has high prostate and urethra selectivity, making it safe with regard to orthostatic hypotension and ejaculation disorder side effects. It comes in various dose forms, including 25 mg, 50 mg, and 75 mg, with the dosage controlled based on symptoms.
<b>Opalmon® Tab.</b> Lumbar Spinal Stenosis Treatment		Opalmon® is an oral prostaglandin E1 derivative. It is a safe product with low side effects. It was originally developed by Ono Pharmaceutical of Japan. With an indication of spinal stenosis, this original drug has been prescribed for more than a decade.
<b>Jublia® Topical Solution</b> Antifungal Drugs, Topical Onychomycosis Treatment		Originally developed by KAKEN of Japan, Jublia® is a topical onychomycosis treatment, first in the triazole class, and its main ingredient is efinaconazole. Offering similar treatment effects as the Itraconazole oral solution, it indicates the highest healing rate among topical agents. This world-renowned product has obtained US FDA approval, and ranks first in sales in the onychomycosis treatment market of North America and Japan.
<b>Teribone® Inj.</b> Osteoporosis Treatment		Teribone® hypodermic injection 56.5µg is a Teriparatide-class medication with an anabolic mechanism. It is an osteoporosis treatment for post-menopausal women, who are at high risk of bone fracture. It is effective for treating patients with bone fracture due to osteoporosis. It improves bone density as well as bone quality to enhance patients' bone strength, thereby preventing additional fractures. Originally developed by Asahi Kasei in Japan, it was released in Korea in 2016.
<b>Contrave® Tab.</b> Obesity Treatment		Contrave® is an ethical drug for obesity in oral dosage form with Bupropion/Naltrexone ingredients. It was originally developed by Orexigen in the US. It was first released in the U.S. in 2014. It is the only non-psychotropic ETC drug for obesity in oral dosage form that received approval from both the US FDA and European EMA. A large-scale clinical trial proved weight reduction effects of around 8% to 11% in 56 weeks. It is the most-prescribed obesity treatment in the U.S.
<b>Edarbi® Tab.</b> Hypertension Treatment		Edarbi® is an Angiotensin II receptor antagonist originally developed by Takeda of Japan. The blood pressure reductions of 80mm/mg were proved to be statistically superior when compared to the FDA-approved active comparators such as olmesartan medoxomil (Benicar®) 40mg/day and valsartan (Diovan®) 320mg/day. It delivers outstanding 24-hour blood pressure control with fast and sustained blood pressure reduction. With a trough-to-peak (T/P) ratio of 0.95, it indicates the highest level among ARBs as well as in the class of antihypertensive drugs.
Generic Drugs		
<b>Baracle® Tab.</b> Hepatitis B Treatment		Baracle® (Entecavir) is a generic of Baraclude®, a hepatitis B treatment. It uses a high-purity, high-quality API produced by ST Pharm, which manufactures and exports APIs of hepatitis treatments, through strict quality control based on the Quality by Design (QbD). A non-inferiority clinical trial was conducted on naive patients, resulting in Baracle® being recognized for its safety and non-inferiority with the original product.
<b>Lipinon® Tab.</b> Dyslipidemia Treatment		Lipinon® is a dyslipidemia treatment, and its main ingredient is atorvastatin. Launched in 2008, it is Dong-A ST's flagship steady seller. Product quality was demonstrated by a phase IV non-inferiority clinical trial in Korea as well as by using outstanding APIs from ST Pharm, an affiliate which supplies APIs to global pharmaceutical companies. It is exported to Japan as an API.
<b>Cresnon® Tab.</b> Dyslipidemia Treatment		Cresnon® is a dyslipidemia treatment, the main ingredient of which is rosuvastatin. Launched in 2014, its efficacy and safety were proven by a phase IV non-inferiority clinical trial in Korea. Dong-A ST plans to develop it into a leading generic product by leveraging its unique strength of using APIs that are internally synthesized by ST Pharm and that received a formulation patent.
<b>Duonon® Tab.</b> Dyslipidemia Treatment		Duonon®, a dyslipidemia treatment with combined ingredients of rosuvastatin and ezetimibe, was released in 2016. Dong-A ST is expanding its market presence by adding new products in its dyslipidemia treatment product portfolio, in consideration of market trends where there are growing needs for combination therapies.
<b>Togenon® Tab.</b> Fixed-dose Combination for Hypertension and Dyslipidemia		Released in 2017, Togenon® is a treatment for patients suffering from both dyslipidemia and hypertension. Its combined ingredients are rosuvastatin and candesartan. It simultaneously treats dyslipidemia and hypertension to prevent cardiovascular diseases.
<b>Plavitor® Tab.</b> Platelet Aggregation Inhibitor		Plavitor® was the first generic product introduced to the market of platelet aggregation inhibitors. It selectively inhibits ADP(Adenosine Diphosphate)-induced platelet aggregation, and also blocks ADP-mediated amplification mechanism, resulting in strong inhibition of platelet aggregation.
<b>Monotaxel® Inj.</b> Cancer Treatment		Released in 2010, Monotaxel® is a cancer treatment, the main ingredient of which is docetaxel. It has multiple indications, including breast cancer, non-small cell lung cancer, prostate cancer, ovarian cancer, head and neck cancer, gastric cancer, and esophageal cancer. In the overall docetaxel market worth around KRW 33.7 billion, it has a market share of approximately 24%, which is the highest after its original drug, Taxotere®.

# Dong-A ST Financial Review

Dong-A ST Co., Ltd.

## Independent Auditors' Report

Based on a report originally issued in Korean

### The Board of Directors and Shareholders

Dong-A ST Co., Ltd.:

We have audited the accompanying separate financial statements of Dong-A ST Co., Ltd. (the "Company"), which comprise the separate statements of financial position as of December 31, 2017 and 2016, the separate statements of comprehensive income, changes in equity and cash flows for the years then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

#### Management's Responsibility for the Separate Financial Statements

Management is responsible for the preparation and fair presentation of these separate financial statements in accordance with Korean International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of separate financial statements that are free from material misstatement, whether due to fraud or error.

#### Auditors' Responsibility

Our responsibility is to express an opinion on these separate financial statements based on our audits. We conducted our audits in accordance with Korean Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the separate financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the separate financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the separate financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the separate financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the Separate financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Opinion

In our opinion, the separate financial statements present fairly, in all material respects, the separate financial position of the Company as of December 31, 2017 and 2016 and its separate financial performance and its separate cash flows for the years then ended in accordance with Korean International Financial Reporting Standards.

#### Other Matter

The procedures and practices utilized in the Republic of Korea to audit such separate financial statements may differ from those generally accepted and applied in other countries.

KPMG Samjong Accounting Corp.

Seoul, Korea

March 16, 2018

This report is effective as of March 16, 2018, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying separate financial statements and notes thereto. Accordingly, the readers of the audit report should understand that the above audit report has not been updated to reflect the impact of such subsequent events or circumstances, if any.

## Separate Statements of Financial Position

As of December 31, 2017 and 2016

(In thousands of won)	2017	2016
<b>ASSETS</b>		
Cash and cash equivalents	₩ 190,772,957	285,279,681
Short-term financial instruments	107,140	-
Trade receivables	93,758,318	128,922,036
Other receivables	15,012,781	29,227,568
Other financial assets	1,010,730	-
Inventories	98,550,262	105,873,067
Other current assets	13,204,862	11,593,643
<b>Total current assets</b>	<b>412,417,050</b>	<b>560,895,995</b>
Long-term financial instruments	6,500	6,500
Other receivables	1,719,779	2,655,589
Other financial assets	24,405,958	17,386,896
Property, plant and equipment	335,696,774	366,159,278
Intangible assets	12,998,488	15,802,568
Investment property	103,630,509	85,453,008
Investments in subsidiaries	570,374	560,374
Other non-current assets	8,383,393	17,585,951
<b>Total non-current assets</b>	<b>487,411,775</b>	<b>505,610,164</b>
<b>Total assets</b>	<b>₩ 899,828,825</b>	<b>1,066,506,159</b>
<b>LIABILITIES</b>		
Trade payables	₩ 30,566,638	27,812,172
Other payables	46,732,867	82,042,031
Short-term borrowings	120,435,754	252,762,972
Provisions for sales	3,662,917	3,436,537
Other current liabilities	17,018,899	18,553,392
Income tax payable	1,128,999	1,524,573
<b>Current liabilities</b>	<b>219,546,074</b>	<b>386,131,677</b>
Other payables	8,623,951	8,758,594
Long-term borrowings	59,869,238	39,893,926
Other financial liabilities	-	56,757
Defined benefit liability	9,024,619	1,015,994
Other non-current liabilities	15,359,315	31,113,359
Deferred tax liabilities	6,072,936	10,410,283
<b>Non-current liabilities</b>	<b>98,950,059</b>	<b>91,248,913</b>
<b>Total liabilities</b>	<b>318,496,133</b>	<b>477,380,590</b>
<b>EQUITY</b>		
Share capital	42,219,340	42,219,340
Share premium	286,468,820	286,468,820
Capital adjustment	(735,580)	(640,880)
Other equity components	160,421,306	161,309,335
Retained earnings	92,958,806	99,768,954
<b>Total equity</b>	<b>581,332,692</b>	<b>589,125,569</b>
<b>Total liabilities and equity</b>	<b>₩ 899,828,825</b>	<b>1,066,506,159</b>

## Separate Statements of Comprehensive Income (Loss)

For the years ended December 31, 2017 and 2016

	2017	2016
<small>(In thousands of won, except per share information)</small>		
Revenue	₩ 554,767,229	560,278,128
Cost of sales	(275,059,531)	(283,765,766)
<b>Gross profit</b>	<b>279,707,698</b>	<b>276,512,362</b>
Selling and administrative expense	(176,942,054)	(191,797,493)
Research and development expense	(78,697,757)	(69,538,586)
<b>Operating profit</b>	<b>24,067,887</b>	<b>15,176,283</b>
Other income	5,082,363	21,101,087
Other expense	(4,374,099)	(17,790,219)
Finance income	8,226,232	13,435,373
Finance costs	(41,189,229)	(16,653,924)
<b>Profit (loss) before income tax</b>	<b>(8,186,846)</b>	<b>15,268,600</b>
Income tax benefit (expense)	2,952,087	(2,351,924)
<b>Profit (Loss)</b>	<b>(5,234,759)</b>	<b>12,916,676</b>
<b>Other comprehensive income (loss)</b>		
<b>Items that will not be reclassified subsequently to profit or loss</b>		
Defined benefit plan remeasurement	2,012,651	(1,850,731)
<b>Items that are or may be reclassified to profit or loss</b>		
Net changes in fair value of available-for-sale financial assets	(256,373)	62,857
Effective portion of unrealized changes in fair value of cash flow hedges	-	201,481
<b>Other comprehensive income (loss), net of tax</b>	<b>1,756,278</b>	<b>(1,586,393)</b>
<b>Total comprehensive income (loss)</b>	<b>₩ (3,478,481)</b>	<b>11,330,283</b>
<b>Earning (Loss) per share (in won)</b>		
Basic earning (loss) per share	(620)	1,541

## Separate Statements of Changes in Equity

For the year ended December 31, 2016

(In thousands of won)		Share capital	Share premium	Treasury shares	Other equity components	Retained earnings	Total equity
<b>Balance as of January 1, 2016</b>	₩	40,179,025	252,832,635	(640,880)	162,176,994	96,734,336	551,282,110
<b>Total comprehensive income (loss):</b>							
<b>Profit</b>		-	-	-	-	12,916,676	12,916,676
<b>Other comprehensive income (loss):</b>							
Changes in fair value of available-for-sale financial assets		-	-	-	62,857	-	62,857
Defined benefit plan remeasurement		-	-	-	-	(1,850,731)	(1,850,731)
Effective portion of unrealized changes in fair value of cash flow hedges		-	-	-	201,481	-	201,481
Total other comprehensive income (loss)		-	-	-	264,338	(1,850,731)	(1,586,393)
<b>Total comprehensive income (loss)</b>		-	-	-	264,338	11,065,945	11,330,283
<b>Transactions with owners of the Company, recognized directly in equity:</b>							
Cash dividends		-	-	-	-	(8,031,327)	(8,031,327)
Exercise of stock warrants		2,040,315	33,636,185	-	(1,131,997)	-	34,544,503
<b>Total transactions with owners of the Company</b>		2,040,315	33,636,185	-	(1,131,997)	(8,031,327)	26,513,176
<b>Balance as of December 31, 2016</b>	₩	42,219,340	286,468,820	(640,880)	161,309,335	99,768,954	589,125,569

(In thousands of won)		Share capital	Share premium	Treasury shares	Other equity components	Retained earnings	Total equity
Balance as of January 1, 2017	₩	42,219,340	286,468,820	(640,880)	161,309,335	99,768,954	589,125,569
<b>Total comprehensive income (loss):</b>							
Profit(loss)		-	-	-	-	(5,234,759)	(5,234,759)
<b>Other comprehensive income (loss):</b>							
Changes in fair value of available-for-sale financial assets		-	-	-	(256,373)	-	(256,373)
Defined benefit plan remeasurement		-	-	-	-	2,012,651	2,012,651
Revaluation surplus		-	-	-	(631,655)	631,655	-
Total other comprehensive income (loss)		-	-	-	(888,028)	2,644,306	1,756,278
<b>Total comprehensive income (loss)</b>		-	-	-	(888,028)	(2,590,453)	(3,478,481)
<b>Transactions with owners of the Company, recognized directly in equity:</b>							
Cash dividends		-	-	-	-	(4,219,695)	(4,219,695)
Treasury shares		-	-	(94,700)	-	-	(94,700)
<b>Total transactions with owners of the Company</b>		-	-	(94,700)	-	(4,219,695)	(4,314,395)
Balance as of December 31, 2017	₩	42,219,340	286,468,820	(735,580)	160,421,307	92,958,806	581,332,693

## Separate Statements of Cash Flows

For the years ended December 31, 2017 and 2016

(In thousands of won)	2017	2016
<b>Cash flows from operating activities</b>		
Profit (Loss)	₩ (5,234,759)	12,916,676
Adjustments	56,641,191	29,480,791
Changes in assets and liabilities	2,252,890	(24,917,464)
Income taxes paid	(2,304,039)	(17,149,235)
<b>Net cash from operating activities</b>	<b>51,355,283</b>	<b>330,768</b>
<b>Cash flows from investing activities</b>		
Interest received	2,225,891	1,851,108
Dividends received	2,000	2,664
Disposal of available-for-sale financial assets	-	93,600
Disposal of investments in subsidiaries	-	29,289,339
Disposal of property, plant and equipment	2,463,875	14,514,526
Disposal of intangible assets	425,000	1,430,000
Decrease in deposits	560,650	174,252
Decrease in other receivables	13,042,400	25,505,682
Increase in short-term loans to employees	-	(735,000)
Increase in short-term financial instruments	(107,140)	-
Acquisition of available-for-sale financial assets	(8,960,100)	(2,036,507)
Acquisition of held-to-maturity financial assets	-	(21,720)
Acquisition of investments in subsidiaries	(10,000)	(341,520)
Acquisition of property, plant and equipment	(10,662,984)	(20,375,253)
Acquisition of intangible assets	(863,912)	(1,475,577)
Increase in deposits	(158,000)	(219,300)
<b>Net cash (used in) investing activities</b>	<b>(2,042,320)</b>	<b>47,656,294</b>
<b>Cash flows from financing activities</b>		
Proceeds from short-term borrowings	30,435,754	66,468
Proceeds from issuing bonds	19,939,780	-
Exercise of stock warrants	-	34,544,503
Interest paid	(7,026,123)	(8,570,241)
Dividends paid	(4,219,695)	(8,031,327)
Repayment of short-term borrowings	(66,468)	(9,497,234)
Repayment of current portion of bonds	(110,000,000)	(32,487,223)
Repayment of current portion of long-term borrowings	-	(10,000,000)
Repayment of current portion of bonds with warrants	(54,434,480)	-
Repayment of bonds	-	(30,765,525)
<b>Net cash used in financing activities</b>	<b>(125,371,232)</b>	<b>(64,740,579)</b>
<b>Net decrease in cash and cash equivalents</b>	<b>(76,058,269)</b>	<b>(16,753,517)</b>
<b>Effect of exchange rate fluctuations on cash held</b>	<b>(18,448,455)</b>	<b>6,675,005</b>
<b>Cash and cash equivalents at beginning</b>	<b>285,279,681</b>	<b>295,358,193</b>
<b>Cash and cash equivalents at end of year</b>	<b>₩ 190,772,957</b>	<b>285,279,681</b>

# Corporate & IR Information

## Corporate Information

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### Date of Establishment

#### Dong-A Socio Holdings

December 1932

#### Dong-A ST

March 2013

#### Dong-A Pharmaceutical

March 2013

### Securities Listing

#### Dong-A Socio Holdings

Korea Stock Exchange A000640

#### Dong-A ST

Korea Stock Exchange A170900

#### ST Pharm

Korea Securities Dealers Automated Quotation  
237690

### Annual General Meeting

March 27, 2018

## Information Availability

### Dong-A Socio Holdings



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[English](#)

### Dong-A ST



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### ST Pharm



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### DM Bio



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