

Financial Results

FY2020 Q1

(January to March 2020)

Carna Biosciences, Inc.



Stock Code : 4572

- **A Clinical Trial Application (CTA) was approved to initiate clinical trial of AS-0871 (February).**
- **Entered into a license agreement with BioNova Pharmaceuticals Limited, a China-based biopharmaceutical company, to develop and commercialize AS-1763, a novel next-generation BTK inhibitor, for the Greater China territory (March).**
- **Introduced a new corporate governance structure with Audit and Supervisory Committee that consists of four independent outside directors (March).**

(JPY mn)	FY2019 Q1 Actual	FY2020 Q1 Actual	YoY Change	FY2020 Plan	
Sales	169	335	+165 +97.1%	1,036	-Support business was strong in North America. -Upfront payment from licensing.
Operating Profit/Loss	(233)	(165)	+68	(1,779)	Gross profits increased thanks to increase in internally developed products/services sales and upfront payment.
Ordinary Profit/Loss	(235)	(168)	+67	(1,794)	
Net Profit/Loss	(236)	(184)	+52	(1,822)	
R&D Cost	228	328	+100 +43.7%	2,040	Investment in preclinical studies.

Note 1: Rounded down to the nearest million yen.

Note 2: YoY change % for Operating Loss, Ordinary Loss, and Net Loss are not presented since losses were recorded.

Note 3: FY2020 plan was disclosed on February 7, 2020.

(JPY mn)	FY2019 Q1 Actual	FY2020 Q1 Actual	YoY Change	FY2020 Plan	vs. FY Plan	
Total Sales	169	335	+165 +97.1%	1,036	32.3%	
Drug Discovery Support	169	282	+112 +65.9%	1,036	27.2%	Sales in North America were strong.
Drug Discovery & Development	—	53	+53	—	—	Upfront payment from licensing.
Total Operating Loss	(233)	△ 165	+68	△1,779	—	
Drug Discovery Support	30	132	+101 333.8%	375	35.2%	Gross profit increased thanks to upbeat sales of internally developed products/services.
Drug Discovery & Development	(263)	△ 297	△33	△2,155	—	Investment in preclinical studies.

Note 1: Rounded down to the nearest million yen.

Note 2: YoY change % and comparison to FY2020 plan for Operating Loss are not presented since losses were recorded.

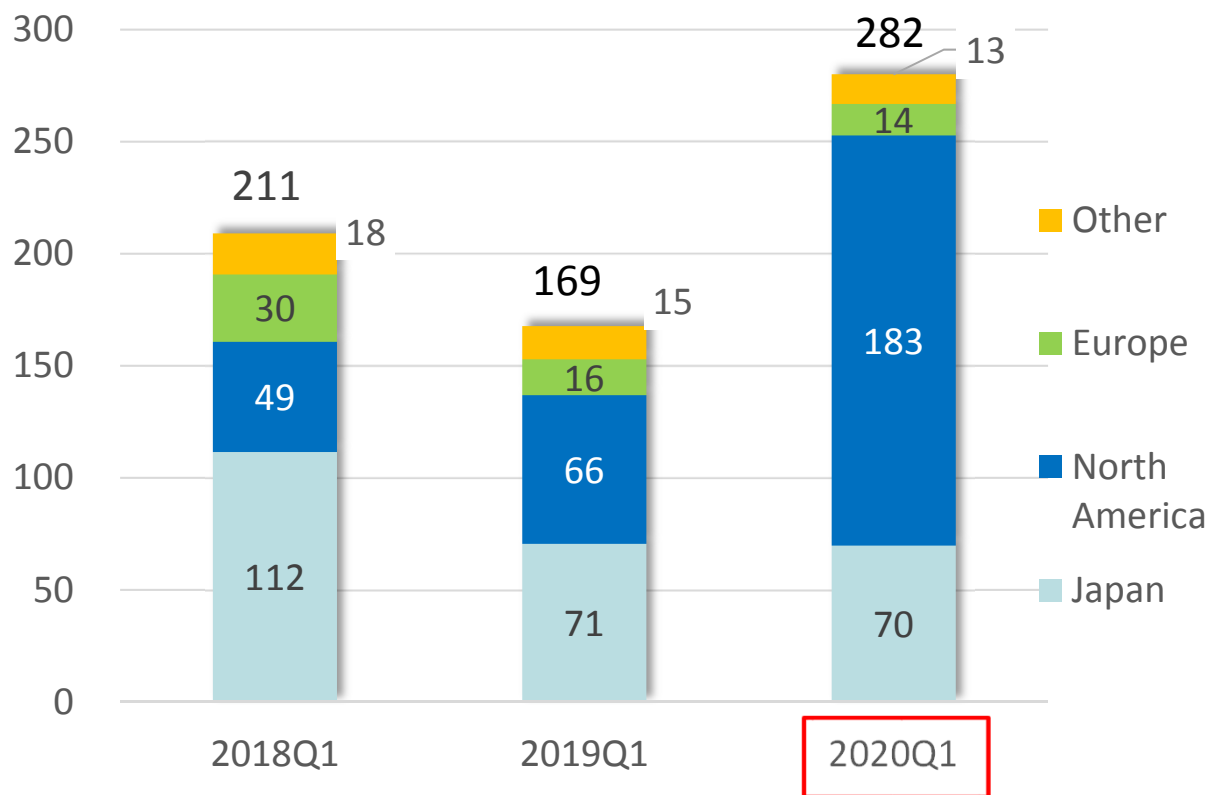
Note 3: FY2020 plan was disclosed on February 7, 2020.

FY2020 Q1 Sales Trend by Region Drug Discovery Support Business



Drug Discovery Support Business
Sales Trend by Region

(JPY million)



- Japan: Decreased 0.6% YoY Profiling service and NanoBRET assay service were robust.
- North America: Increased 174.3% YoY Sales to Gilead, other mega pharma and new biotech companies contributed positively.
- Europe: Decreased 11.1% YoY Profiling service and cell-based assay service were weak.
- Other: Decreased 12.6% YoY Sales in China were weak in January and February but started recovering in March. Sales in Korea were weak compared to strong performance in Q1 FY2019.

Consolidated Balance Sheet



(JPY mn)

	As of Dec. 31, 2019	As of Mar. 31, 2020	Change	Reason for changes
Current assets	5,274	5,548	+273	
Cash and deposits	4,915	5,229	+313	
Non-current Assets	101	95	-5	
Total assets	5,376	5,644	+267	
Current liabilities	1,055	669	-385	Income taxes payable -114, Accounts payable -96
Non-current liabilities	467	404	-63	Long term loans payable -49 Bonds payable -14
Total liabilities	1,523	1,073	-449	
Total net assets	3,853	4,570	+717	Capital stock and capital surplus +907, Retained earnings -184
Total liabilities and net assets	5,376	5,644	+267	

Shareholders' equity ratio	71.5%	80.9%
BPS	329.8 yen	374.2 yen
PBR	6.4 x	3.5 x
Share price of Carna	2,123 yen	1,309 yen

Note: Share price is the closing price of the term end.

Realize Drug Discovery Vision 2030 and become a Leading Drug Discovery company that continuously deliver innovative drugs

■ **Funds raised from warrants will be used to accelerate research and development.**

- ✓ Advance developments of two BTK inhibitors, AS-0871 and AS-1763.
- ✓ Prime next wave of development programs.
- ✓ Expand research pipeline.

■ **Series 18th Subscription Rights to Shares**

Series	Status of Exercise (as of the end of April)
Series 18th Subscription Rights to Shares	Total Number of shares exercised 1,195,000 shares (73.5% of total warrants issued) Total value exercised JPY2,173 million

- ✓ With JPY5,229 million in cash and cash equivalents, we have sufficient funds to advance our R&D as planned.

Robust Preclinical Pipeline



Compound	Target	Indication	Discovery	Preclinical	Clinical	Partner
SRA141 (AS-141)	CDC7/ASK	Cancer			IND Completed	SIERRA ONCOLOGY
Small Molecule	Kinase	Immuno-Oncology				GILEAD
Small Molecule	Kinase	Psychiatry & neurology				Sumitomo Dainippon Pharma
AS-0871	BTK	Immune-inflammatory diseases			CTA Completed	
AS-1763	BTK	Blood Cancer Immuno-Oncology				BioNova Pharmaceuticals *Greater China only
Small Molecule	Wnt-signal	Immuno-Oncology				
Small Molecule	TGFβ signaling	Blood Cancer Immuno-Oncology				
Small Molecule	Kinase	Autoimmune diseases				
Small Molecule	N/A	Malaria				
Small Molecule	CDK1	Cancer				
Small Molecule	STING	Immune-inflammatory diseases				

SRA141 : CDC7 Inhibitor Targeting Cancer (Out-licensed to Sierra Oncology)



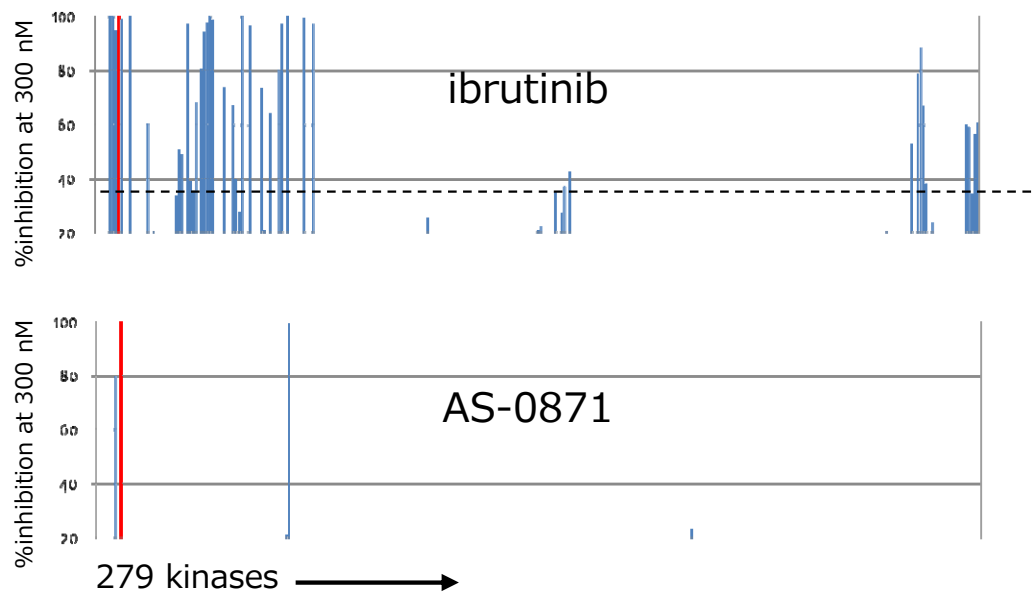
- ✓ Sierra has successfully completed the IND filing process with FDA. Carna will receive the first milestone payment (\$4.0 million) upon the initiation of Phase 1 study.
- ✓ Sierra announced that it is conducting a campaign intended to seek non-dilutive strategic options to support further advancement of SRA141.
- ✓ Carna eligible for up to \$270 million in total milestone payments and royalties.

AS-0871 : Development undergoing targeting autoimmune diseases

- | | |
|--|---|
| <ul style="list-style-type: none">● Small molecule BTK inhibitor● Non-covalent/reversible● High kinase selectivity | <ul style="list-style-type: none">● Demonstrated significant efficacies in arthritis models● Showed efficacy in systemic lupus erythematosus model● CTA approved in February 2020 |
|--|---|

- ✓ Clinical Trial Application (CTA) in Netherlands was approved in February 2020.
- ✓ First-in-human (FIH) study of AS-0871 was planned in Q1 but has been postponed in Q2 due to the COVID-19 pandemic in Europe. However, the schedule may be changed depending on the situation of the outbreak.
- ✓ We reviewed the development plan and rescheduled the study plan to minimize the impact on the timeline. However, the development plan will be reviewed again if the pandemic will continue for a long period of time.

◆ High kinase selectivity



◆ AS-0871 inhibits an allergic reaction

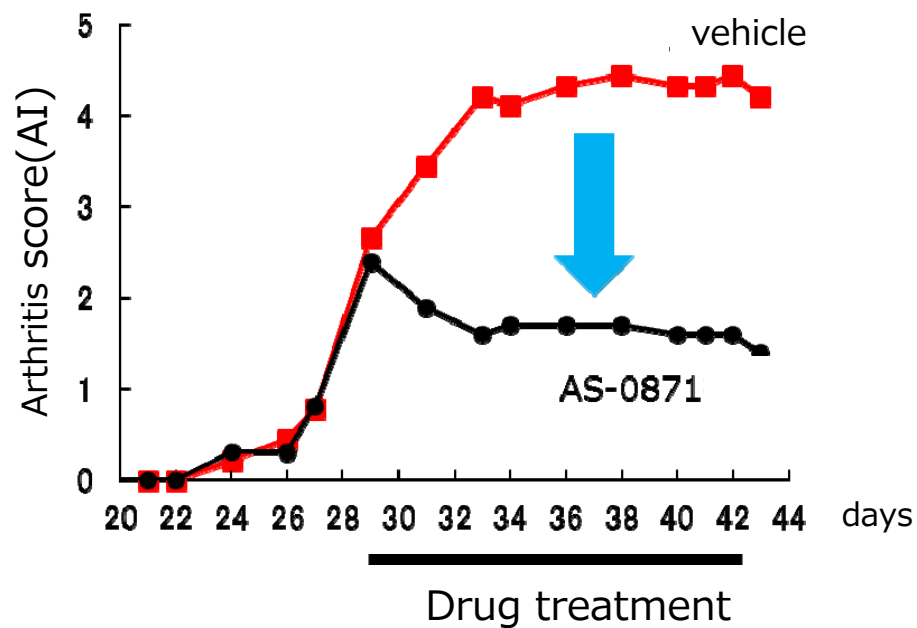


Vehicle



AS-0871

Therapeutic efficacy in Collagen-induced arthritis (CIA) mice



AS-1763 : Development undergoing targeting blood cancer

- | | |
|---|--|
| <ul style="list-style-type: none">● Non-covalent/reversible● High kinase selectivity● Inhibits both BTK wild type and ibrutinib resistant BTK C481S mutants | <ul style="list-style-type: none">● Displayed strong anti-tumor effects in lymphoma model● Preclinical development undergoing with CTA submission targeted in 2020● Displayed efficacy in immuno-oncology model● Potential applications for autoimmune diseases |
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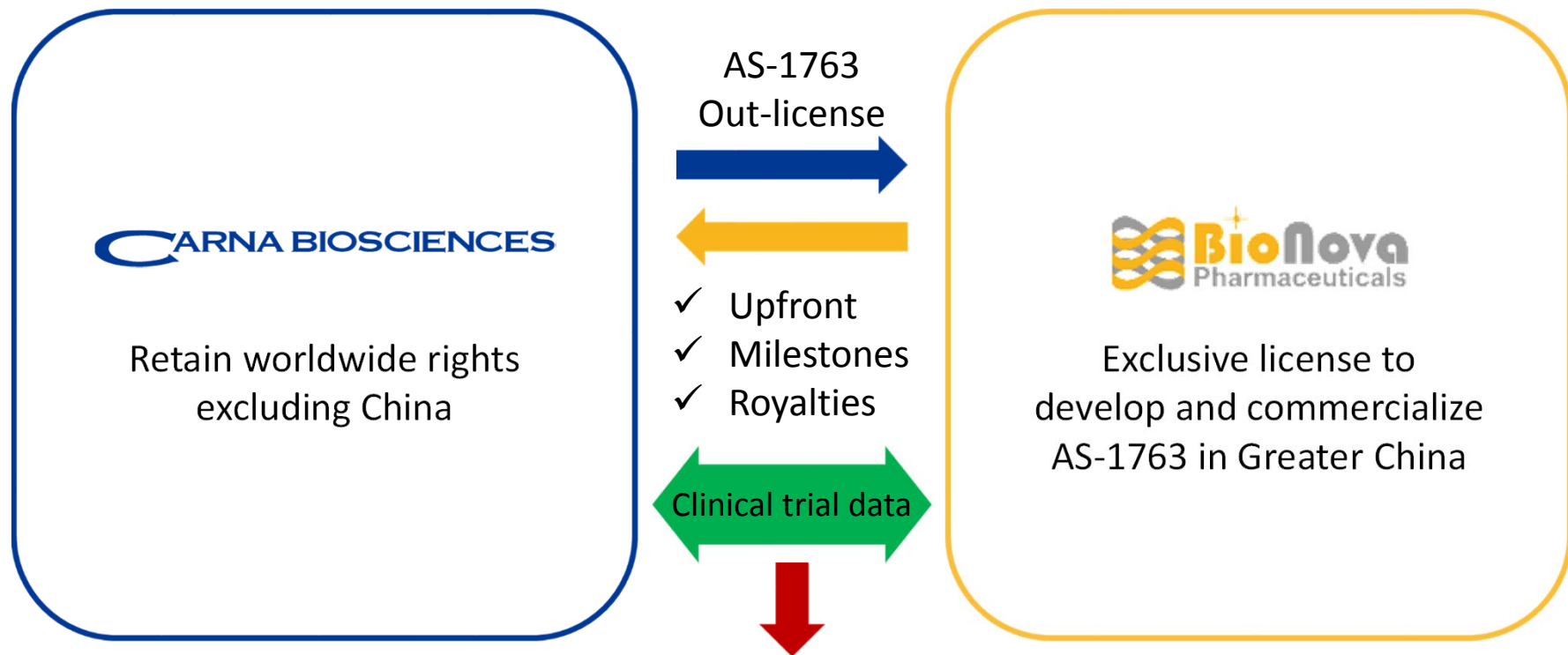
- ✓ We strategically revised the development plan for AS-1763, considering the highly competitive environment in the U.S. for patient recruitment.
 - ◆ The FIH study will be conducted in Europe to accelerate the development by utilizing the established network in Europe through CTA for AS-0871.
 - ◆ We granted BioNova Pharmaceuticals an exclusive license to develop and commercialize AS-1763 in Greater China to conduct the clinical studies of AS-1763 in China, facilitating enrollment of potential patients.
- ➡ Catch up with the competitors by taking multiple and effective strategies to shorten the clinical trial timeline.

AS-1763 : License Agreement with BioNova in Greater China



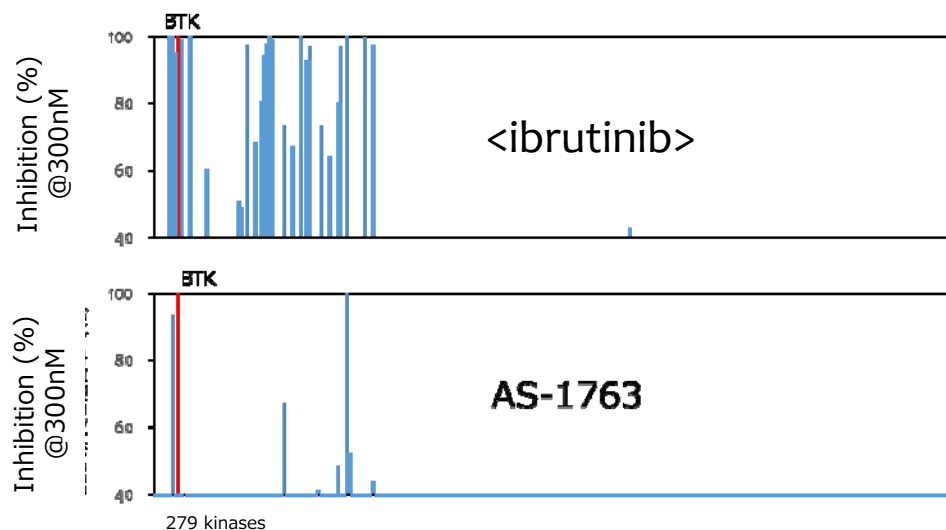
Carna granted BioNova Pharmaceuticals in China an exclusive license to develop and commercialize AS-1763 in Greater China.

- Deal Size An upfront payment and \$205 million in potential milestone payments upon achievement of certain development and commercial milestones
- Royalties Tiered royalties up to double digits on net sales in Greater China

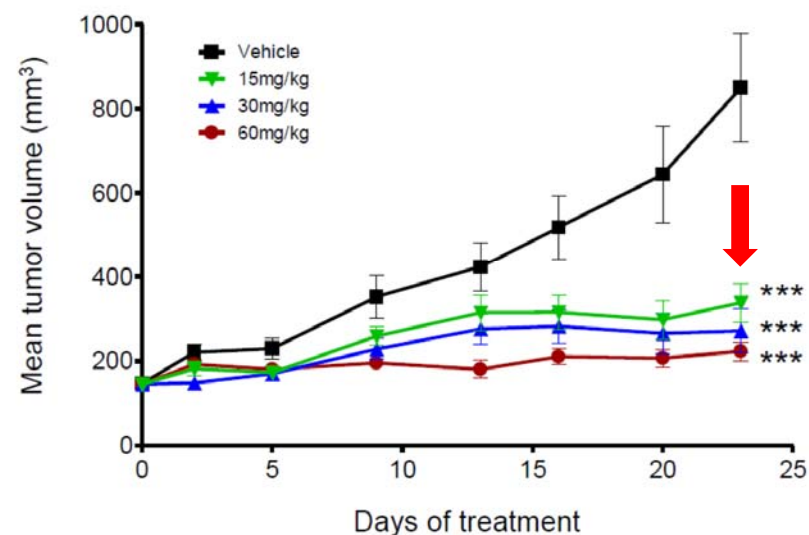


Accelerate the clinical development of AS-1763

◆ High kinase selectivity

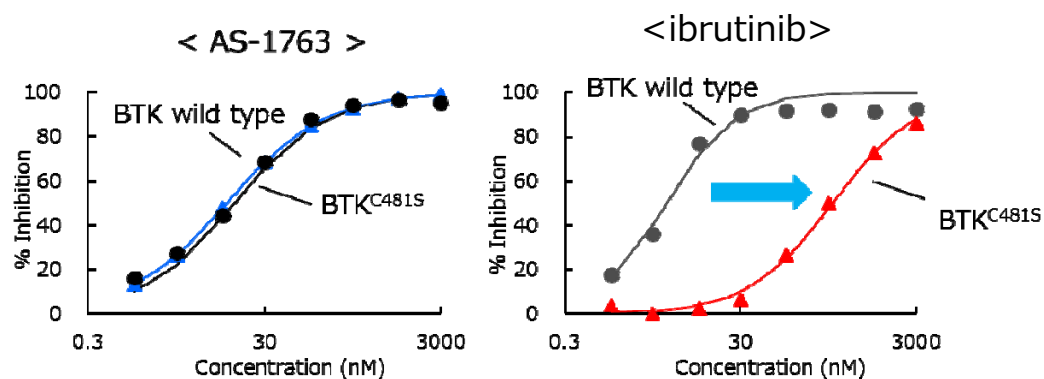


◆ AS-1763 significantly inhibits tumor growth in a B-cell lymphoma mouse model

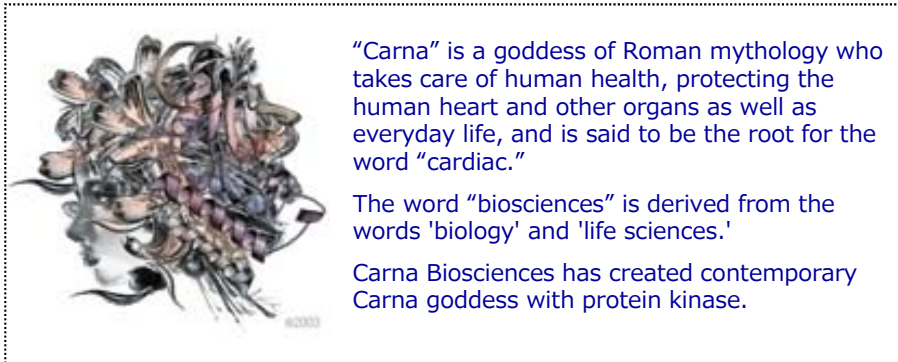


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◆ AS-1763 inhibits both WT and C481S mutant BTK enzymes



- Drug Discovery Support business achieved sales of JPY282 million, up 65.9% yoy.
 - ✓ North America: +174.3% yoy thanks to sales to Gilead, other big pharma, and biotech startups.
 - ✓ A new cell-based assay service using NanoBRET™ technology has started to gain momentum in Japan as well as in North America and Europe.
- Measures at Carna Biosciences in response to the Covid-19 pandemic
 - ✓ We are taking several precautions to ensure that our employees are safe and that customer service operations are progressing as planned.
 - ✓ We have suspended customer visit and switched to video conferencing for discussions.
 - ✓ Office staffs are encouraged to work from home with secure access to the corporate networks and services.
 - ✓ Employees who have to be in labs have been working in shifts for risk mitigation.



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