

## Consolidated Financial Results for the Second Quarter of the Year Ending December 31, 2016 (Six Months Ended June 30, 2016)

[Japanese GAAP]

August 5, 2016

Company name: Carna Biosciences, Inc.      Stock exchange listing: Tokyo Stock Exchange (JASDAQ Growth)  
 Stock code: 4572      URL: <http://www.carnabio.com/english/>  
 Representative: Kohichiro Yoshino, President and CEO  
 Contact: Kohichiro Yoshino, Director, Business Administration Div.      TEL: +81-78-302-7075  
 Scheduled submission of Quarterly Report: August 9, 2016  
 Scheduled date of dividend payment: -  
 Preparation of supplementary materials for quarterly financial results: Yes  
 Holding of quarterly financial results meeting: Yes (for institutional investors and analysts)

(Rounded down to the nearest million yen)

### 1. Consolidated Financial Results for the First Six Months of the Year Ending December 31, 2016 (January 1, 2016 to June 30, 2016)

(1) Consolidated results of operations (Percentages show changes from the same period of the previous fiscal year)

	Net sales		Operating income		Ordinary income		Profit attributable to owners of parent	
	Millions of yen	%	Millions of yen	%	Millions of yen	%	Millions of yen	%
Six months ended Jun. 30, 2016	442	(61.0)	(195)	-	(208)	-	(33)	-
Six months ended Jun. 30, 2015	1,134	270.7	679	-	704	-	666	-

Note: Comprehensive income      Six months ended Jun. 30, 2016: (156) millions of yen (- %)

Six months ended Jun. 30, 2015: 786 millions of yen (- %)

	Net income per share	Diluted net income per share
	Yen	Yen
Six months ended Jun. 30, 2016	(3.71)	-
Six months ended Jun. 30, 2015	78.73	76.98

(2) Consolidated financial position

	Total assets	Net assets	Equity ratio
	Millions of yen	Millions of yen	%
As of Jun. 30, 2016	2,629	1,983	75.3
As of Dec. 31, 2015	2,337	1,870	79.7

Reference: Shareholders' equity      As of Jun. 30, 2016: 1,978 millions of yen      As of Dec. 31, 2015: 1,862 millions of yen

### 2. Dividends

	Dividend per share				
	End of 1 <sup>st</sup> quarter	End of 2 <sup>nd</sup> quarter	End of 3 <sup>rd</sup> quarter	Year-end	Total
	Yen	Yen	Yen	Yen	Yen
FY2015	-	0.00	-	0.00	0.00
FY2016	-	0.00	-	-	-
FY2016 (Forecast)	-	-	-	0.00	0.00

Note: Revisions to the most recently announced dividend forecast: None

### 3. Consolidated Financial Forecast for the Year Ending December 31, 2016 (January 1, 2016 to December 31, 2016)

The Group has not announced its consolidated financial forecast for FY2016 as disclosure of earnings estimates for the Drug Discovery and Development business may inhibit out-licensing activities of this business, preventing maximization of value. Therefore, the Group discloses a forecast for the Drug Discovery Support business only (Net Sales 858 million yen (10.0% year-on-year decrease), Operating Income 320 million yen (22.4% year-on-year decrease)). The forecast has not been revised since last announcement.

**\* Notes**

(1) Changes in significant subsidiaries during the period (changes in scope of consolidation): None

(2) Application of special accounting methods for presenting quarterly consolidated financial statements: None

(3) Changes in accounting policies, accounting-based estimates, and restatements

1) Changes in accounting policies due to revisions in accounting standards, others: Yes

2) Changes in accounting policies other than 1) above: None

3) Changes in accounting estimates: None

4) Restatements: None

(4) Number of shares outstanding (common stock)

1) Number of shares outstanding at the end of the period (including treasury stock)

As of Jun. 30, 2016:	9,232,900 shares	As of Dec. 31, 2015:	8,892,700 shares
----------------------	------------------	----------------------	------------------

2) Number of treasury stock at the end of the period

As of Jun. 30, 2016:	- shares	As of Dec. 31, 2015:	- shares
----------------------	----------	----------------------	----------

3) Average number of shares outstanding during the period

Six months ended Jun. 30, 2016:	9,088,233 shares	Six months ended Jun. 30, 2015:	8,464,094 shares
---------------------------------	------------------	---------------------------------	------------------

\* Information regarding the implementation of quarterly review procedures

The current quarterly financial report is not subject to the quarterly review procedures based on the Financial Instruments and Exchange Act. At the time of disclosure, the review procedures based on the Financial Instruments and Exchange Act for the quarterly financial statements have been completed.

\* Note to ensure appropriate use of forecasts and other remarks

The forecasts and other forward-looking statements in this document are based on the information currently available to the management and on certain assumptions considered by the management to be reasonable. Actual operating results may differ significantly from these statements for various factors. For details of the assumptions used in the forecast of financial results and a cautionary note concerning appropriate use, please refer to “(3) Consolidated Forecast and Other Forward-looking Statements” on page 3.

**Contents**

1. Qualitative Information on Quarterly Consolidated Financial Performance.....2

    (1) Analysis of Operating Results .....2

    (2) Analysis of Financial Position.....3

    (3) Consolidated Financial Forecast and Other Forward-looking Statements .....3

2. Matters Related to Summary Information (Notes).....3

    (1) Changes in Significant Subsidiaries during the Period.....3

    (2) Application of Special Accounting Methods for Presenting Quarterly Consolidated Financial Statements.....3

    (3) Changes in Accounting Policies, Accounting Estimates, and Restatements .....3

3. Quarterly Consolidated Financial Statements.....5

    (1) Quarterly Consolidated Balance Sheet .....5

    (2) Quarterly Consolidated Statements of Income and Comprehensive Income.....6

    (3) Quarterly Consolidated Statement of Cash Flows .....8

    (4) Notes to Quarterly Consolidated Financial Statements .....9

        (Going Concern Assumption).....9

        (Significant Changes in Shareholders' Equity) .....9

        (Segment and Other Information).....9

## 1. Qualitative Information on Quarterly Consolidated Financial Performance

### (1) Analysis of Operating Results

In the first half of 2016, the global economy continued to show a move toward recovery as consumer spending remained strong in the U.S. and additional monetary easing measures were implemented in Europe. However, the outlook remained uncertain due to Brexit issue and slow down of economic growth in emerging markets. In Japan, the outlook of the economy also remained uncertain due to weak consumer spending and yen appreciation.

In the pharmaceutical industry, mega pharma companies are actively in-licensing pipelines from biotech companies to develop next-generation blockbuster drugs while major drugs are being replaced by generic drugs due to patent expiry and “Open Innovation” is becoming mainstream of drug discovery. In Japan, the Japan Agency for Medical Research and Development (AMED) was established in 2015 to combine wisdom of medical and pharmaceutical sectors, which is expected to boost the creation of breakthrough results.

In this environment, the Group has developed the Drug Discovery Support business and the Drug Discovery and Development business to expand the business, leveraging its drug discovery platform technologies involving kinase inhibitors as a core technology.

In the six months ended June 30, 2016, the Company granted an exclusive license to ProNAi Therapeutics, Inc. (ProNAi) to develop and commercialize cancer drug candidate compounds (AS-141), a small molecule kinase inhibitor targeting CDC7, and received an initial upfront payment. In addition to the aforementioned out-licensing activities, the Group has actively conducted research and development of kinase inhibitors mainly in its core therapeutic areas including cancer and autoimmune diseases. Furthermore, leveraging its drug discovery platform technologies, the Group has enhanced the range of its new kinase products including lipid kinases. In the Drug Discovery Support business, the Group has focused on providing technical support to leading biotech companies and major pharmaceutical companies in order to expand its market shares in Europe and the U.S., two primary markets for the Group, while working to secure new contracts for large-scale kinase screening services from pharmaceutical companies both in Japan and overseas.

As a result, in the six months ended June 30, 2016, the Group recorded net sales of 442 million yen (61.0% year-on-year decrease), an operating loss of 195 million yen (compared with operating income of 679 million yen in the same period of FY2015), an ordinary loss of 208 million yen (compared with ordinary income of 704 million yen in the same period of FY2015), and a loss attributable to owners of parent of 33 million yen (compared with profit attributable to owners of parent of 666 million yen in the same period of FY2015).

Results by business segment are as follows.

#### (a) Drug Discovery Support business

By providing kinase proteins, assay development, profiling and screening services, and cell-based assay services, sales of the Drug Discovery Support business decreased 33.9% to 343 million yen and operating income decreased 71.8% to 78 million yen. By region, sales in Japan decreased 37.4% to 210 million yen, sales in North America decreased 36.8% to 91 million yen, sales in Europe decreased 4.6% to 32 million yen, and sales in other regions increased 63.8% to 10 million yen.

#### (b) Drug Discovery and Development business

The Company entered into an exclusive license agreement with ProNAi (head quartered in Canada with a development base in the U.S.) to grant ProNAi worldwide rights to develop and commercialize drug candidate compounds targeting CDC7 developed by the Company (AS-141, including backup compounds). As an initial upfront payment, the Company received 98 million yen and recognized it as second quarter sales. In addition, the Group has actively conducted research and development to discover innovative kinase inhibitors. As a result, in the six months ended June 30, 2016, sales of this segment were 98 million yen (compared with 614 million in the same period of FY2015) and operating loss was 274 million yen (compared with an operating income of 401 million in the same period of 2015).

**(2) Analysis of Financial Position**

(Millions of yen)

	FY2015 (As of Dec. 31, 2015)	Second quarter of FY2016 (As of Jun. 30, 2016)	Change
Total assets	2,337	2,629	291
Net assets	1,870	1,983	113
Equity ratio (%)	79.7	75.3	(4.4)

As of the end of the second quarter of FY2016, total assets increased by 291 million yen from the end of FY2015 to 2,629 million yen, mainly due to an increase of 695 million yen in cash and deposits, and decreases of 126 million yen in accounts receivable-trade, and 273 million yen in investment securities.

Total liabilities increased 178 million yen to 645 million yen, mainly due to a decrease of 42 million yen in accounts payable-other and an increase of 278 million yen in long-term loans payable.

Net assets increased 113 million yen to 1,983 million yen, mainly due to 33 million yen of loss attributable to owners of parent, an increase of 139 million yen in capital stock, an increase of 139 million yen in capital surplus, and a decrease of 114 million yen of valuation difference on available-for-sale securities.

Shareholders' equity ratio was 75.3% (compared with 79.7% at the end of FY2015).

**(3) Consolidated Financial Forecast and Other Forward-looking Statements**

The Company maintains its financial forecast for the Drug Discovery Support business presented in the Consolidated Financial Results for the Year Ended December 31, 2015 (Japanese GAAP) that was announced on February 12, 2016.

**2. Matters Related to Summary Information (Notes)****(1) Changes in Significant Subsidiaries during the Period**

Not applicable.

**(2) Application of Special Accounting Methods for Presenting Quarterly Consolidated Financial Statements**

Not applicable.

**(3) Changes in Accounting Policies, Accounting Estimates, and Restatements**

(Change in Accounting Policies)

Application of the Accounting Standards for Business Combinations

The Company has applied the "Accounting Standard for Business Combinations" (Accounting Standards Board of Japan (ASBJ) Statement No. 21, September 13, 2013), "Accounting Standard for Consolidated Financial Statements" (ASBJ Statement No. 22, September 13, 2013), "Accounting Standard for Business Divestitures" (ASBJ Statement No. 7, September 13, 2013), etc. from the first quarter of 2016. Accordingly, difference arising from changes in the Company's ownership interests in subsidiaries in cases where control is retained is recognized in capital surplus, and the acquisition costs in connection with business combinations are recognized as expenses in the fiscal year in which they arise. Regarding business combinations that take place on or after the beginning of the first quarter of 2016, the Company has revised the method to reflect reviewed allocation of the acquisition costs arising from determination of the provisional accounting treatment on the quarterly consolidated financial statements to which the date of the business combination belongs.

In addition, the presentation of net income and other items has been revised. For consistency with these changes, the consolidated financial statements for the first half of 2015 have been revised.

The Company has adopted these accounting standards, etc. from the beginning of the first quarter of 2016, in accordance with the transitional accounting treatments set forth in Article 58-2 (4) of the Accounting Standard for Business Combinations, Article 44-5 (4) of the Accounting Standard for Consolidated Financial Statements, and

Article 57-4 (4) of the Accounting Standard for Business Divestitures.

There is no impact on the quarterly consolidated financial statements for the first half of 2016.

Change in depreciation method

Following the revision of the Corporation Tax Act, the Company has adopted the “Practical Solution on a Change in Depreciation Method due to Tax Reform 2016” (ASBJ Practical Issues Task Force (PITF) No. 32, June 17, 2016) from the second quarter of 2016, and changed the method for the depreciation of facilities attached to buildings and structures acquired on or after April 1, 2016, from the declining-balance method to the straight-line method.

There is no impact on the quarterly consolidated financial statements in the first half of 2016.

**3. Quarterly Consolidated Financial Statements****(1) Quarterly Consolidated Balance Sheet**

	(Thousands of yen)	
	FY2015 (As of Dec. 31, 2015)	Second quarter of FY2016 (As of Jun. 30, 2016)
<b>Assets</b>		
Current assets		
Cash and deposits	1,624,941	2,320,738
Accounts receivable-trade	191,740	65,485
Merchandise and finished goods	91,445	83,314
Work in process	7,459	12,418
Raw materials and supplies	26,415	12,069
Other	53,788	54,237
Total current assets	1,995,790	2,548,264
Non-current assets		
Property, plant and equipment	37,251	45,205
Intangible assets	1,451	1,080
Investments and other assets	303,115	34,506
Total non-current assets	341,819	80,792
Total assets	2,337,609	2,629,056
<b>Liabilities</b>		
Current liabilities		
Accounts payable-trade	15,466	160
Current portion of long-term loans payable	65,344	143,680
Accounts payable-other	69,531	27,092
Income taxes payable	38,767	10,086
Other	46,882	9,172
Total current liabilities	235,992	190,190
Non-current liabilities		
Long-term loans payable	148,273	426,589
Asset retirement obligations	25,168	25,419
Other	57,673	3,228
Total non-current liabilities	231,115	455,236
Total liabilities	467,107	645,427
<b>Net assets</b>		
Shareholders' equity		
Capital stock	2,900,784	3,040,119
Deposit for subscriptions to shares	5,946	-
Capital surplus	1,718,888	1,858,188
Retained earnings	(2,879,693)	(2,913,446)
Total shareholders' equity	1,745,925	1,984,862
Accumulated other comprehensive income		
Valuation difference on available-for-sale securities	114,484	484
Deferred gains or losses on hedges	(1,696)	-
Foreign currency translation adjustment	3,848	(6,610)
Total accumulated other comprehensive income	116,637	(6,125)
Subscription rights to shares	7,940	4,893
Total net assets	1,870,502	1,983,629
Total liabilities and net assets	2,337,609	2,629,056

**(2) Quarterly Consolidated Statements of Income and Comprehensive Income****Quarterly Consolidated Statement of Income****(For the Six-month Period)**

(Thousands of yen)

	First six months of FY2015 (Jan. 1, 2015 – Jun. 30, 2015)	First six months of FY2016 (Jan. 1, 2016 – Jun. 30, 2016)
Net sales	1,134,889	442,708
Cost of sales	118,577	136,524
Gross profit	1,016,311	306,183
Selling, general and administrative expenses	336,567	501,689
Operating income (loss)	679,744	(195,505)
Non-operating income		
Interest income	68	68
Subsidy income	29,240	8,692
Other	325	222
Total non-operating income	29,634	8,983
Non-operating expenses		
Interest expenses	1,012	1,504
Share issuance cost	1,937	1,195
Issuance cost of subscription rights to shares	1,674	-
Foreign exchange losses	57	18,897
Other	373	406
Total non-operating expenses	5,055	22,004
Ordinary income (loss)	704,323	(208,526)
Extraordinary income		
Gain on sales of investment securities	-	177,543
Gain on reversal of subscription rights to shares	2,282	-
Total extraordinary income	2,282	177,543
Extraordinary losses		
Impairment loss	-	1,624
Total extraordinary losses	-	1,624
Profit (loss) before income taxes	706,606	(32,607)
Income taxes-current	40,661	1,382
Income taxes-deferred	(419)	(237)
Total income taxes	40,242	1,145
Profit (loss)	666,364	(33,752)
Profit (loss) attributable to owners of parent	666,364	(33,752)



**Quarterly Consolidated Statement of Comprehensive Income****(For the Six-month Period)**

	(Thousands of yen)	
	First six months of FY2015 (Jan. 1, 2015 – Jun. 30, 2015)	First six months of FY2016 (Jan. 1, 2016 – Jun. 30, 2016)
Profit (loss)	666,364	(33,752)
Other comprehensive income		
Valuation difference on available-for-sale securities	119,521	(114,000)
Deferred gains or losses on hedges	-	1,696
Foreign currency translation adjustment	486	(10,459)
Total other comprehensive income	120,008	(122,762)
Comprehensive income	786,372	(156,515)
Comprehensive income attributable to:		
Owners of parent	786,372	(156,515)

**(3) Quarterly Consolidated Statement of Cash Flows**

(Thousands of yen)

	First six months of FY2015 (Jan. 1, 2015 – Jun. 30, 2015)	First six months of FY2016 (Jan. 1, 2016 – Jun. 30, 2016)
Cash flows from operating activities		
Profit (loss) before income taxes	706,606	(32,607)
Depreciation	9,302	9,947
Impairment loss	-	1,624
Interest income	(68)	(68)
Interest expenses	1,012	1,504
Subsidy income	(29,240)	(8,692)
Share issuance cost	1,937	1,195
Issuance cost of subscription rights to shares	1,674	-
Loss (gain) on sales and valuation of investment securities	-	(177,543)
Gain on reversal of subscription rights to shares	(2,282)	-
Foreign exchange losses (gains)	(2,233)	15,680
Decrease (increase) in notes and accounts receivable-trade	(612,367)	122,003
Decrease (increase) in inventories	(310)	17,498
Increase (decrease) in notes and accounts payable-trade	(3,654)	(15,260)
Increase (decrease) in accounts payable-other	(85,232)	(33,487)
Other, net	35,575	(39,499)
Subtotal	20,718	(137,705)
Interest income received	63	136
Interest expenses paid	(993)	(1,927)
Proceeds from subsidy income	4,988	4,409
Income taxes (paid) refund	(2,096)	(29,019)
Net cash provided by (used in) operating activities	22,680	(164,107)
Cash flows from investing activities		
Purchase of property, plant and equipment	(133)	(27,248)
Purchase of intangible assets	(232)	-
Proceeds from sales of investment securities	-	281,876
Net cash provided by (used in) investing activities	(365)	254,628
Cash flows from financing activities		
Proceeds from long-term loans payable	-	400,000
Repayments of long-term loans payable	(19,464)	(43,348)
Proceeds from issuance of shares resulting from exercise of subscription rights to shares	494,228	268,373
Proceeds from issuance of subscription rights to shares	6,265	-
Other, net	14,666	-
Net cash provided by (used in) financing activities	495,697	625,025
Effect of exchange rate change on cash and cash equivalents	1,867	(19,748)
Net increase (decrease) in cash and cash equivalents	519,880	695,797
Cash and cash equivalents at beginning of period	626,742	1,624,941
Cash and cash equivalents at end of period	1,146,623	2,320,738

**(4) Notes to Quarterly Consolidated Financial Statements****(Going Concern Assumption)**

Not applicable.

**(Significant Changes in Shareholders' Equity)**

First six months of FY2015 (Jan. 1, 2015 – Jun. 30, 2015)

Following the exercise of subscription rights to shares, capital stock and capital surplus increased 251,591 thousand yen and 251,580 thousand yen, respectively, during the first six months of FY2015, to 2,878,662 thousand yen and 1,696,811 thousand yen at the end of the first six months of FY2015.

First six months of FY2016 (Jan. 1, 2016 – Jun. 30, 2016)

Following the exercise of subscription rights to shares, capital stock and capital surplus increased 139,335 thousand yen and 139,300 thousand yen, respectively, during the first six months of FY2016, to 3,040,119 thousand yen and 1,858,188 thousand yen at the end of the first six months of FY2016.

**(Segment and Other Information)**

## Segment Information

I. First six months of FY2015 (Jan. 1, 2015 – Jun. 30, 2015)

Information related to net sales and profit or loss for each reportable segment (Thousands of yen)

	Reportable segment		
	Drug Discovery Support	Drug Discovery and Development	Total
Net sales			
External sales	520,039	614,850	1,134,889
Intersegment sales or transfers	-	-	-
Total	520,039	614,850	1,134,889
Segment profit	278,660	401,084	679,744

Note: Total segment profit is consistent with operating income shown on the quarterly consolidated statement of income.

II. First six months of FY2016 (Jan. 1, 2016 – Jun. 30, 2016)

1. Information related to net sales and profit or loss for each reportable segment (Thousands of yen)

	Reportable segment		
	Drug Discovery Support	Drug Discovery and Development	Total
Net sales			
External sales	343,780	98,928	442,708
Intersegment sales or transfers	-	-	-
Total	343,780	98,928	442,708
Segment profit (loss)	78,682	(274,188)	(195,505)

Note: Total segment profit (loss) is consistent with operating loss shown on the quarterly consolidated statement of income.

2. Information related to impairment loss on non-current assets, goodwill, etc. for each reportable segment

An impairment loss of 1,624 thousand yen was booked in the Drug Discovery and Development business in the first six months of FY2016.

*This financial report is solely a translation of "Kessan Tanshin" (in Japanese, including attachments), which has been prepared in accordance with accounting principles and practices generally accepted in Japan, for the convenience of readers who prefer an English translation.*