

# The Second Quarter of the Year Ending March 2011

## Financial Results



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<http://www.transgenic.co.jp>

November 29, 2010  
TRANS GENIC INC.

Note: These materials are based on economic and social conditions as of the time this presentation was prepared and on reasonable management plans by the company. Revisions may be made without prior notice due to changes in the operating environment. These materials incorporate forward-looking statements. Various factors including market trends, development of new technologies and competitors' moves could cause actual operating and financial results to differ from the stated in these materials.

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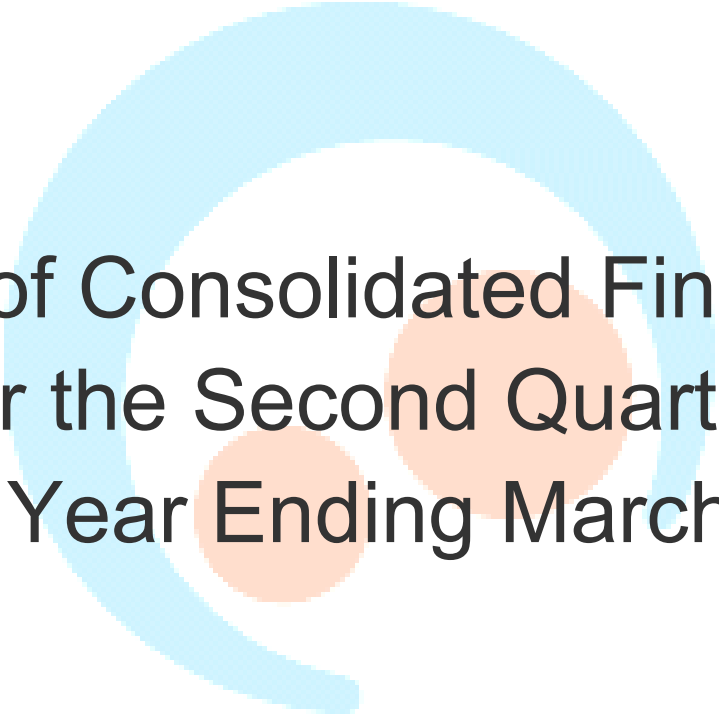
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# I . Overview of Consolidated Financial Results for the Second Quarter of the Year Ending March 2011



## **TransGenic will**

- 1. Focus on three core businesses**
- 2. Take decisive action to establish a high-profit structure mainly thorough cost reduction.**
- 3. Enhance development pipelines**

### **1. In Mouse Related Business**

- (1) Improve facilities in line with expanding business operation.
- (2) Launch a profitable new business based on our unique technologies.
- (3) Promote TG resource bank® at home and abroad.

### **2. In Antibody Related Business**

- (1) Establish TG brand by developing new tumor markers following urinary tumor markers and pancreatic cancer markers.
- (2) Facilitate overseas promotion of urinary tumor markers etc.
- (3) Resume custom production services to strengthen revenue base.

### **3. In Reagent Agency Business**

- (1) Expand product lineup to boost sales.

# Second Quarter Highlights

**Sales increased by 10.4 % year on year in the three core businesses (except Functional Food Business). Ordinary loss declined considerably.**

Unit: thousand yen	For the six months ended September 30, 2009	For the six months ended September 30, 2010	Change	Rate of Change
Net Sales	243,550	201,365	▲42,184	▲17.3%
Mouse Related Business	86,806	113,957	27,151	31.3%
Antibody Related Business	25,363	32,561	7,197	28.4%
Reagent Agency Business	47,034	54,846	7,812	16.6%
Functional Food Business*	61,123	—	▲61,123	—
Other Business*	23,221	—	▲23,221	—
Cost of sales	139,330	92,264	▲47,065	▲33.8%
Gross profit	104,219	109,101	4,881	4.7%
SG&A expenses	319,401	190,870	▲128,531	▲40.2%
R&D expense	84,807	32,765	▲52,041	▲61.4%
Operating income (loss)	▲215,182	▲81,769	133,412	▲62.0%
Ordinary income (loss)	▲223,954	▲87,504	136,449	▲60.9%
Net income (loss)	▲189,845	8,385	198,231	▲104.4%

\* Functional Food Business has been suspended and Other Business has been integrated into Mouse Related Business since FY 2010.

## Sales Breakdown by Segment – Mouse Related Business

**Mouse Related Business except contract service of phenotype analysis showed steady performance.**

Unit: thousand yen	For the six months ended September 30, 2009	For the six months ended September 30, 2010	Change	Rate of Change
Sales of gene information (TG Resource bank®)	14,775	17,434	2,659	18.0%
Sales of custom production service of knockout mice	62,591	70,095	7,504	12.0%
Sales of contract service of phenotype analysis	6,860	1,649	▲5,211	▲76.0%
Others	2,580	24,778	22,198	860.4%
<b>Total sales of Mouse Related Business</b>	<b>86,806</b>	<b>113,957</b>	<b>27,151</b>	<b>31.3%</b>

- ◆ TG Resource Bank®: Sales increased year on year due to increasing demand of knockout mice in whom particular genes are destroyed, after they were taken up at a conference.
- ◆ Custom production service of knockout mice: Sales rose year on year due to enhanced sales activities.
- ◆ Others: Sales jumped because sales of drug discovery research support service, classified as “Other Business” in the previous term, has been integrated into this category since FY2010.

## Sales Breakdown by Segment – Antibody Related Business

**Although sales of custom production service of antibodies were sluggish, sales of antibody products continued favorably.**

Unit: thousand yen	For the six months ended September 30, 2009	For the six months ended September 30, 2010	Change	Rate of Change
Sales of antibody products	21,163	27,430	6,266	29.6%
Sales of custom production service of antibodies	—	570	570	—
Others	4,200	4,560	360	8.6%
<b>Total sales of Antibody Related Business</b>	<b>25,363</b>	<b>32,561</b>	<b>7,197</b>	<b>28.4%</b>

- ◆ Sales of antibody products: Antibody products enjoyed brisk sales.
- ◆ Sales of custom production service of antibodies: The resumption of this service was not well known, so that it was difficult to receive orders.

## Sales Breakdown by Segment – Reagent Agency Business



**Reagent Agency Business continued favorably.**

Unit: thousand yen	For the six months ended September 30, 2009	For the six months ended September 30, 2010	Change	Rate of Change
Cytokine related sales	29,637	31,747	2,109	7.1%
Sales of PTG products	17,396	23,099	5,703	32.8%
Total sales of Reagent Agency Business	47,034	54,846	7,812	16.6%

- ◆ Cytokine related sales: Thanks to continued orders from major customers, it remained favorable.
- ◆ PTG products: Sales rose in line with an increasing number of our handling items due to expansion of overseas manufacturers' reagent product lineup.
- ◆ It is expected that sales of Reagent Agency Business will be on a rise due to an increasing number of handling items and efforts to develop new customers.



# Summary for the Second Quarter

◆ Sales increased and loss decreased considerably, as a result of decisive action taken to establish a high profit structure

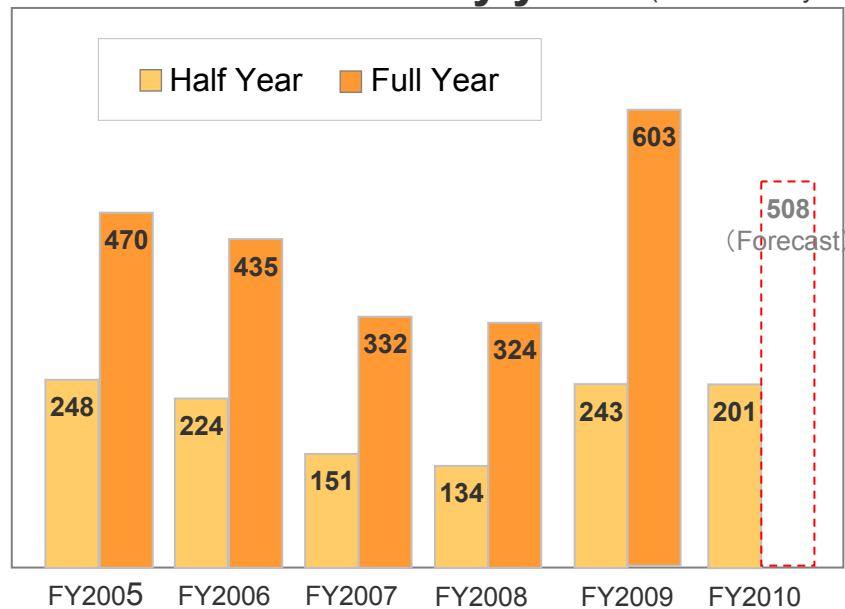
◆ **Net Sales**

Sales of custom production service of antibodies were sluggish since resumption of this service was not well known. However, thanks to sales increase in Mouse Related Business through enhanced sales activities and in Reagent Agency Business due to expanding product lineup, net sales resulted in 201 million yen. Net sales decreased compared to the previous year because of suspension of Functional Food Business, but ordinary loss also actually decreased.

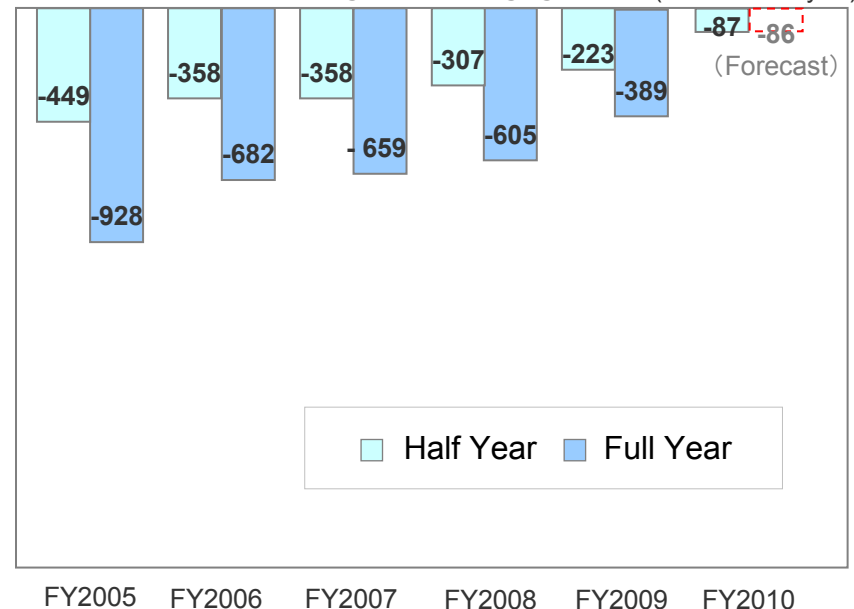
◆ **Income (Loss)**

Operating loss, ordinary loss and current net loss declined due to narrowing down R&D themes and cutback in SG&A expenses.

**Net sales by year** (Unit: million yen)

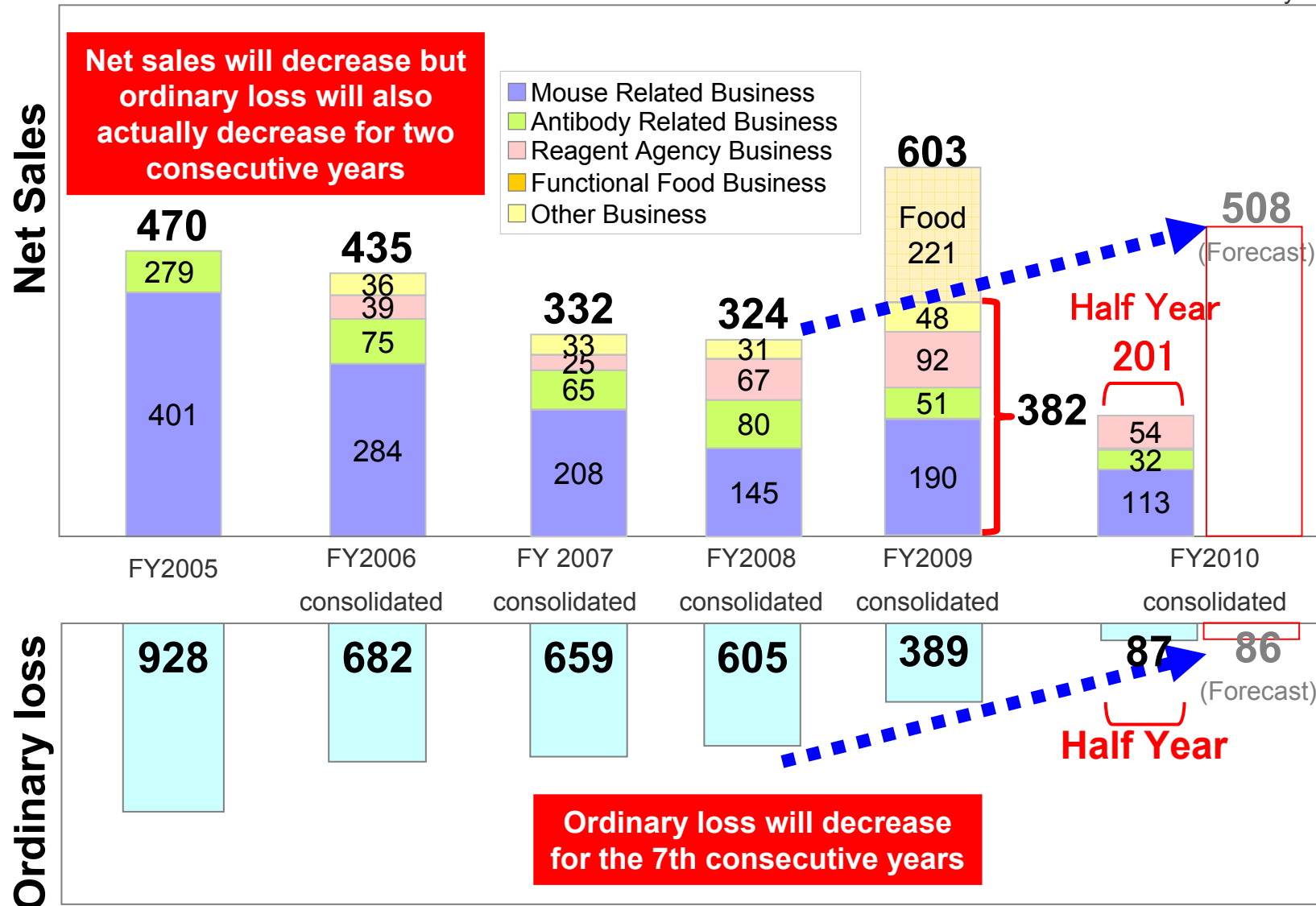


**Ordinary loss by year** (Unit: million yen)



# Consolidated Business Forecast for the Year Ending March 2011

Unit: million yen






## II . Consolidated Business Forecast for the Year Ending March 2011

# Consolidated Business Forecast for the Year Ending March 2011

**To move into the black, TG will continuously strengthen sales promotion, R&D and management through figures in the second half of the fiscal year**

Unit: thousand yen	For the six months ended September 30, 2010 (Forecast*)	For the six months ended September 30, 2010 (Result)	For the whole year ending March 2011 (Forecast*)
Net Sales	202,000	201,365	508,000
Mouse Related Business	115,000	113,957	291,000
Antibody Related Business	32,000	32,561	101,000
Reagent Agency Business	55,000	54,846	116,000
Cost of sales	92,400	92,264	228,000
Gross profit	109,600	109,101	280,000
SG&A expenses	189,600	190,870	360,000
R&D expense	33,000	32,765	60,000
Operating income (loss)	▲80,000	▲81,769	▲80,000
Ordinary income (loss)	▲85,000	▲87,504	▲86,000
Net income (loss)	10,000	8,385	8,000

\* Forecasts (revised) were announced on October 7, 2010.

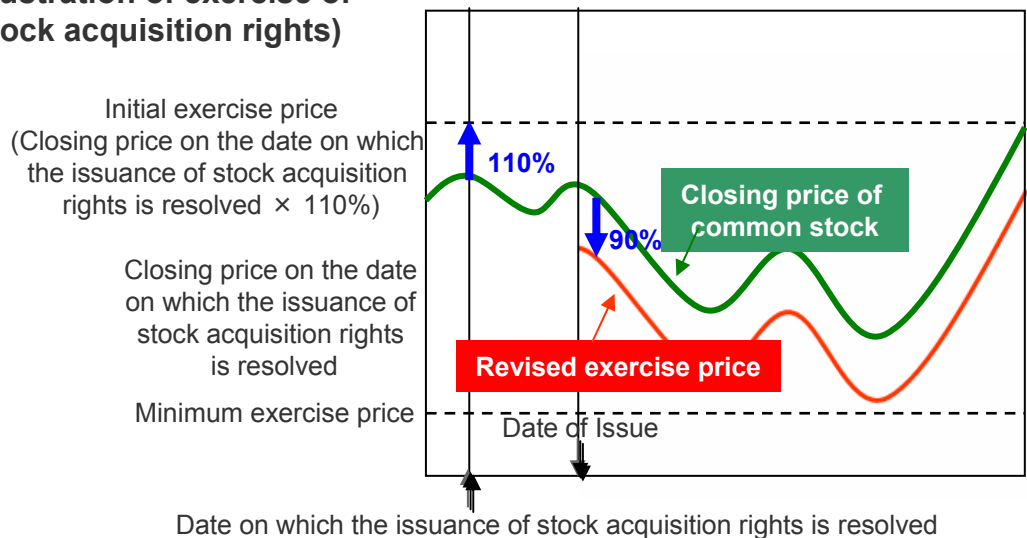


## III. Summary of 2nd Issue of Stock Acquisition Rights

# Summary of 2<sup>nd</sup> Issue of Stock Acquisition Rights

① Number of stock acquisition rights to be issued	20,000 (maximum dilution rate: 18.3%)
② Amount procured	Approximately 1.4 billion yen
③ Purchaser of stock acquisition rights	Macquarie Bank Limited (a major investment bank in Australia)
④ Exercise price and minimum exercise price	<p>The exercise price will be revised to an amount equal to 90% of the closing price of TransGenic common stock on the trading day immediately prior to the date of effectiveness of each demand to exercise a warrant of the issue of stock acquisition rights.</p> <p>The stock acquisition rights can not be exercised when the closing price is below 43,330 yen.</p>

## (Illustration of exercise of stock acquisition rights)



(Notice) This illustration does not show or forecast our stock price movement.

# Summary of 2<sup>nd</sup> Issue of Stock Acquisition Rights



## (Background of Funding)

- Ordinary loss in three core businesses (Mouse, Antibody and Reagent) declined considerably due to positive action taken in FY 2010 to improve our earnings structure. In Antibody Related Business, we discovered an innovative seed and received a patent for it.

-In response to recovery of our stock price since April 2010 and to meet investors' expectation, we intended to further raise corporate value at the earliest date possible.

## (Reason and Purpose for Funding)

### ① The whole company

Policy: We aim to establish a highly profitable earnings structure early by improving management efficiency and strengthening revenue base.

Task: Although gross profit ratios are high in the three core businesses, business expansion is necessary to go into the black at the earliest possible.

Therefore, we have been considering M&A to expand scale of business and product lineup promptly. => up to 700 million yen

### ② Mouse Related Business

Policy: The business is a key to improve our profitability. We regard it as a driving force to go into the black and aim to expand its scale continuously.

Task: - Facility capacity is reaching a limit. Capital investment has been discussed to expand its scale. => up to 500 million yen

- Introduction of a new technology (humanized mouse technology) has also been discussed to clearly differentiate our selves from competitors.

=> up to 100 million yen

### ③ Antibody Related Business

Policy: We will shift from in-house development to joint R&D with the aim of discovering innovative seeds potentially leading to diagnostic reagents and therapeutic antibodies.

Task: Budget for licensing activities (personnel and office) is necessary to make a profit promptly from research results. => up to 100 million yen.

We do not have a financial problem at the end of 2<sup>nd</sup> quarter since we have 1 billion yen in cash on hand and no debt.

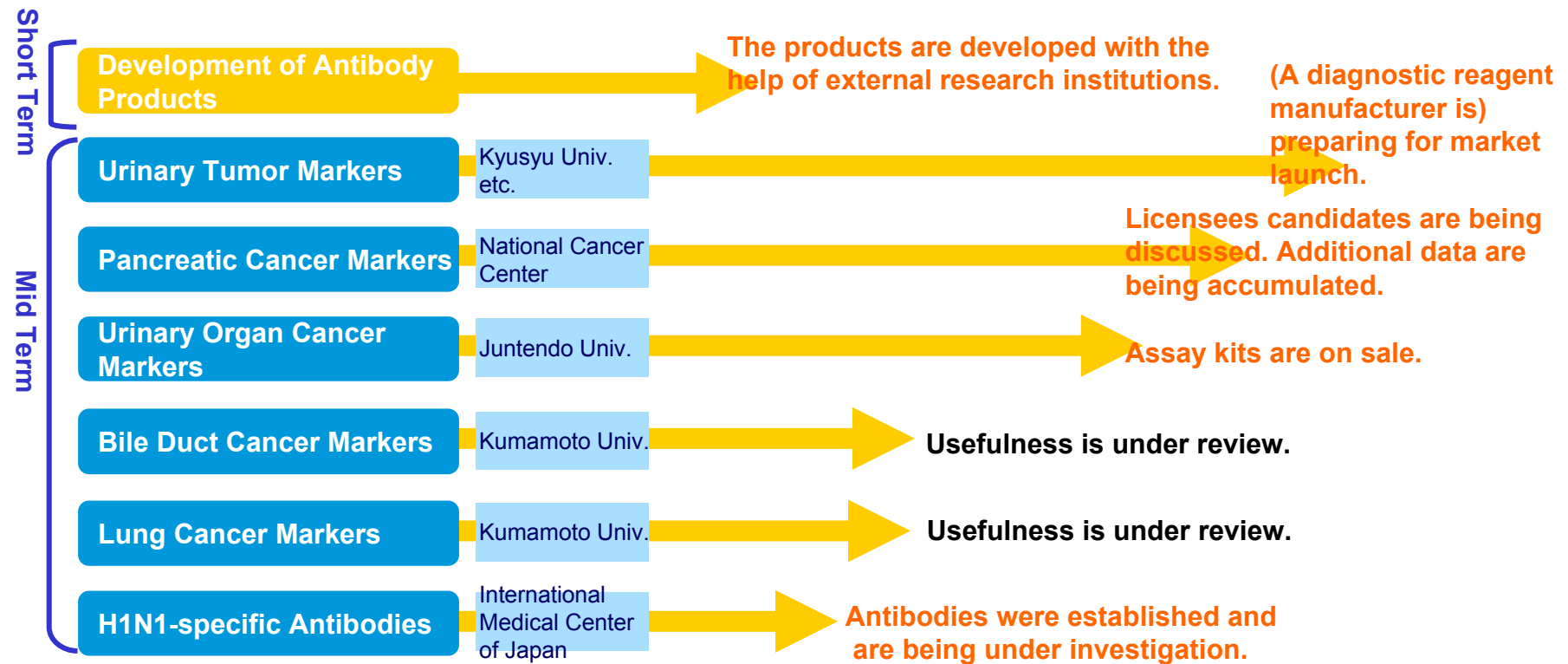
Therefore, while keeping the sound financial condition, we will allocate funds for the above-mentioned operations based on careful consideration of progress of our business plans, requests from customers and behavior of our stock price.



## IV. Current Status of Research and Development



# Development Pipelines



# R&D Project – Urinary Tumor Marker -



◆ Patented as a marker for early stage cancer (on November 4, 2010)

## Urinary Diacetylspermine

Colorectal cancer

	Positive	Negative	Positive Rate
Stage 0	13	8	62 %
Stage I	24	16	60 %
Stage II	42	18	70 %
Stage III	92	21	81 %
Stage IV	14	2	88 %
	185	65	

The positive rates of the tumor marker in early stage cancer are higher than those of conventional markers.

## Serum CEA

	Positive	Negative	Positive Rate
Stage 0	2	19	9.5 %
Stage I	4	36	10 %
Stage II	25	35	42 %
Stage III	53	60	47 %
Stage IV	10	6	63 %
	94	156	

## Serum CA19-9

	Positive	Negative	Positive Rate
Stage 0	1	20	4.8 %
Stage I	3	37	7.5 %
Stage II	3	57	5 %
Stage III	24	89	21 %
Stage IV	5	11	30 %
	36	214	

Future plan

✓ TG will enter into the reagent market in China with an expectation of its quick expansion of business and growing market size.



## ◆ **Development of diagnostic reagents using urinary tumor markers started in China**

TG concluded an exclusive license agreement with Liaoning MEDI Biotechnology CO LTD (Liaoning MEDI) regarding cancer diagnosis using urine samples to start developing the diagnostic reagents in China.

### Overview of Liaoning MEDI

- Location: Benxi Prefecture, Liaoning Province, China (High-tech Industrial Park for biotechnology-based drugs)  
(Liaoning MEDI was established as a joint investment company between BeiJing SL Pharmaceutical Co., Ltd. and Shenyang MEDI.)
- Capital: Approximately 300 million yen
- ✳ **Liaoning MEDI is listed on Shenzhen Stock Exchange.**

### Content of Business of Liaoning MEDI

- R&D, production, distribution and clinical study of extracorporeal diagnostic agents
- Offering dendritic cell vaccines and immune cell therapies to hospitalized patients
- R&D on regeneration medicine and stem cell technology

# Future Prospects of Mouse Business



Knockout Mouse	Knockin Mouse
A knockout mouse is produced by knocking out target genes. It can be a disease-model mouse and allows us to analyze function of the target genes.	A knockin mouse is a mouse in which target genes are replaced with human genes. It allows us to evaluate effect of drugs against human molecules.

Humanized Mouse

A humanized Mouse is a mouse carrying functioning human cells and tissues without rejection.  
 Example: 1. a mouse carrying human leukocyte  
 2. a mouse producing human antibodies  
 3. a mouse carrying human liver (70-90%)

Use: Non clinical test (safety tests for new drugs), human disease model, treatment for virus infection, therapeutic antibody

Current Mouse Business of TG



Future Mouse Business of TG



Market size

From hundreds of millions to billions of yen

**Tens of billions of yen**

# Research and Development Topics 2010



**Jan.**

GANP gene (GANP® mouse technology) was patented in Japan on January 14, 2010.

Results of a research using our KO mice were published in FEBS Journal.

**Mar.**

TG run a booth and presented research results at the 83rd annual meeting of the Japanese Pharmacological Society.

GANP gene (GANP® mouse technology) was patented in Korea.

"Exchangeable gene-trap mouse technology" was patented in Europe.

**Apr.**

Method for producing high-affinity antibodies (GANP® mouse technology) was patented in Japan

Assay system for cancer diagnosis using urine samples was patented in the U.S.

**Jun.**

"Exchangeable gene-trap mouse technology" was patented in China.

**Aug.**

TG presented research results at The 23rd Annual and International Meeting of the Japanese Association for Animal Cell Technology (JAACT2010).

**Sep.**

TG formed a business tie-up with GMJ. Inc.

**Oct.**

TG concluded a Joint Research Agreement with Harbin Medical University.

**Nov.**

"Diacetylspermine as a marker for early stage cancer" was patented in Japan

TG concluded an exclusive license agreement with Liaoning MEDI

# Important Patents Having Been Granted to TG



<p><b>Gene-trap Mouse Technology</b></p> <p>『AU778719』 Patented in Australia          『US7,312,075』 Patented in the U.S.A.          『EP1201759』 Patented in Europe          『ZL00812904.5』 Patented in China</p>	<p>April 2005          December 2007          March 2010  <b>June 2010</b></p>
<p><b>GANP® Mouse Technology</b></p> <p>『ZL2003801028324』 Patented in China          『AU2003277620』 Patented in Australia          『EP1559318』 Patented in Europe          『JP4426728』 Patented in Japan &amp; 『EP4478577』 Patented in Europe          『KR941905』 Patented in Korea</p>	<p>July 2008          February 2009          April 2009          January &amp;          April 2010          March 2010</p>
<p><b>Urinary Tumor Markers:          Assay System for Cancer Diagnosis Using Urine Samples</b></p> <p>『JP3816512』 Patented in Japan          『US7,700,741』 Patented in the U.S.A.          『JP4608432』 Patented in Japan (Diagnosis for early stage cancer)</p>	<p>June 2006          April 2010  <b>November 2010</b></p>
<p><b>Pancreatic Cancer Markers:          Antibody and its Diagnostic Application</b></p> <p>『JP4319700』 Patented in Japan</p>	<p>June 2009</p>



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