

# Gene Techno Science Co., Ltd.

## Financial Results for Fiscal Year Ended March 2019

May 10, 2019

# Cautionary Statement

This information material is provided for understanding Gene Techno Science (“GTS”), not for soliciting investment in GTS shares.

Information provided in this material may contain so-called “forward looking statements”. These statements are based on current expectations, forecasts and assumptions that are subject to risks and uncertainties, which could cause actual outcomes and results to differ materially from these statements. Risks and uncertainties include success ratio of R&D projects, new regulations, and rules, relations with partners in the future, etc.



# Overview of Financial / Business Highlight in FY2018

## Financial Highlight in FY2018

### Financial results was in line with the forecast

- ✓ Filgrastim biosimilars achieved the sales target as planned

### Operating loss reduced

- ✓ The reduction of ca. 300 million yen compared to the forecast
- ✓ The main factor was the carrying over of R&D fee into the subsequent period
- ✓ No impact on R&D schedule

# Overview of Business Highlight

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## Business Highlight

- April** Signed business alliance contract by three companies: NanoCarrier, Nortitsu Koki and GTS
- July** Terminated collaboration agreement with Changsheng Bio
- July** Signed collaborative research agreement with chromocenter
- August** Initiated collaborative research with SOLA Biosciences and GPC Laboratory to develop high-yield protein producing cell lines for biologics including biosimilars.
- September** Submitted of New Drug Application in Japan of Darbepoetin alfa Biosimilar.
- September** Filed International/PCT patent application of Anti-RAMP2 antibodies which inhibit the formation of new blood vessels with a new mechanism.
- January** Executed exclusive licensing agreement with Ocumension in ophthalmologic field
- February** Completed the enrollment of the final patient in the Phase III study for ophthalmologic biosimilar

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- April** Executed the acquisition of 100% ownership of Advanced Cell Technology and Engineering(ACTE)
  - May** Sign a joint research and development agreement with ORTHOREBIRTH



# Overview of FY2018 Financial Results

# Financial Results for FY2018

	Sales (in millions of yen)	Selling, general and administrative expenses (in millions of yen)		Operating profit (in millions of yen)	Ordinary profit (in millions of yen)	Net income for the year (in millions of yen)	Net income per share (in yen)
		Total	R&D expenses included				
Results for FY2018 (A)	1,021	1,414	(945)	- 805	- 816	- 856	- 43.84
Results for FY2017 (B)	1,059	1,550	(1,107)	- 913	- 903	- 904	- 47.27
Change (A-B)	- 38	- 136	(- 162)	108	87	48	
(Reference) Forecasts for FY2018	1,060		1,300	- 1,180	- 1,180	- 1,182	

## Key points

- Filgrastim biosimilars achieved the sales target as planned
- Milestone revenue in biosimilars portfolio was recorded.

- R&D spending was mainly on the biosimilar operations.
- Reduced 300M yen due to the carrying over of R&D expenses into the subsequent period (Development is going smoothly)

Special payment in relation to the retirement of GTS chairman (45 million yen: extraordinary loss)

- The company split each share into two shares on July 1, 2018. Net income per share for the quarter is calculated based on the assumption that the split was conducted at the beginning of FY2018.

# Financial Forecast for FY2019

Shift to consolidated financial reporting as GTS acquired 100% ownership of ACTE on April 1, 2019.

## ◆ Financial Forecast for FY2019

		Sales (Million yen)	Operating profit (Million yen)	Ordinary profit (Million yen)	Net profit (Million yen)	Net profit per share (yen)
Consolidated	Forecast for FY2019	1,050	- 1,220	- 1,260	- 7,260	- 261.94
Non- consolidated	Actual in FY2018 (reference)	1,021	- 805	- 816	- 856	- 43.84

### Key Points

- Sales** : maintain almost the same level as the previous year
- R&D** : **1,200 million yen** (945 million yen for FY2018)  
mainly to development of Biosimilar products
- Goodwill** : A goodwill of ca. 6 billion yen will be recorded in relation to the acquisition of 100% ownership of ACTE



# Investment to Increase Enterprise Value

Record 6,000M JPY of goodwill in relation to the acquisition of 100% ownership of ACTE (one-time write-off in FY2019)

**Indispensable investment on R&D** to enhance the future corporate value

## GTS3.0

Promote Regenerative Medicine  
(Cell Therapy) Business

### Challenge

Establish Cell Therapy Platform

Secure R&D resource

Expand partners

Obtain cell culture  
technology

Require time, resource, and cost  
to solve all those factors within  
the company

### ACTE acquisition

### Challenge resolved

SHED Bank  
Cell culture  
technology

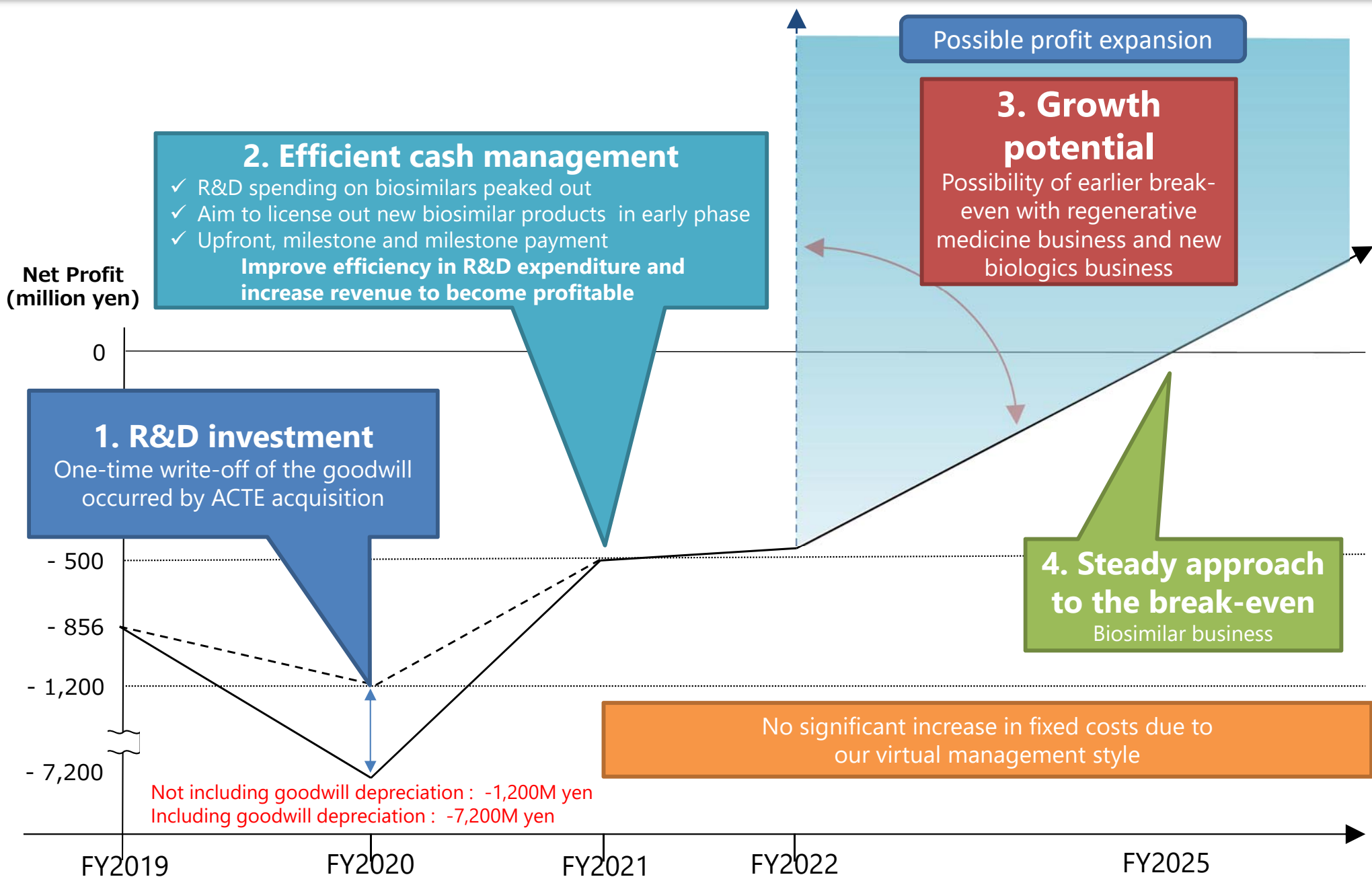
### GTS+ACTE

Regenerative  
Medicine  
(Cell Therapy)  
business

Resolved the challenges on time and resource required for the development  
by the acquisition of ACTE (= investment on R&D)

Aiming to create higher value than the acquisition cost by integrating  
know-how and expertise of GTS

# Roadmap in GTS3.0





# **Acquisition of 100% ownership of Advanced Cell Technology and Engineering(ACTE) by the Share Exchange**

# Acquisition of 100% ownership of ACTE

- Established on October 30, 2008 for the development of products such as regenerative medicine using stem cells from human exfoliated deciduous teeth (SHED)
- Started to operate SHED cell bank **first in Japan**



## For yourself and for your family (Autogenous)

Autogenous cell bank service

- Storage of deciduous teeth for future treatment of children themselves or their families

## For your family and for everyone (Allogenic – for research)

Allogenic cell bank service

- Providing research cells to companies and academia for the development of therapies that can be applied to others (currently collaborate with Daiichi Sankyo, Eisai, Sekisui Chemical etc.)

# Research and Development with SHEDs

## What are SHEDs ?

One type of dental pulp stem cells that extracts from a **human exfoliated deciduous teeth**



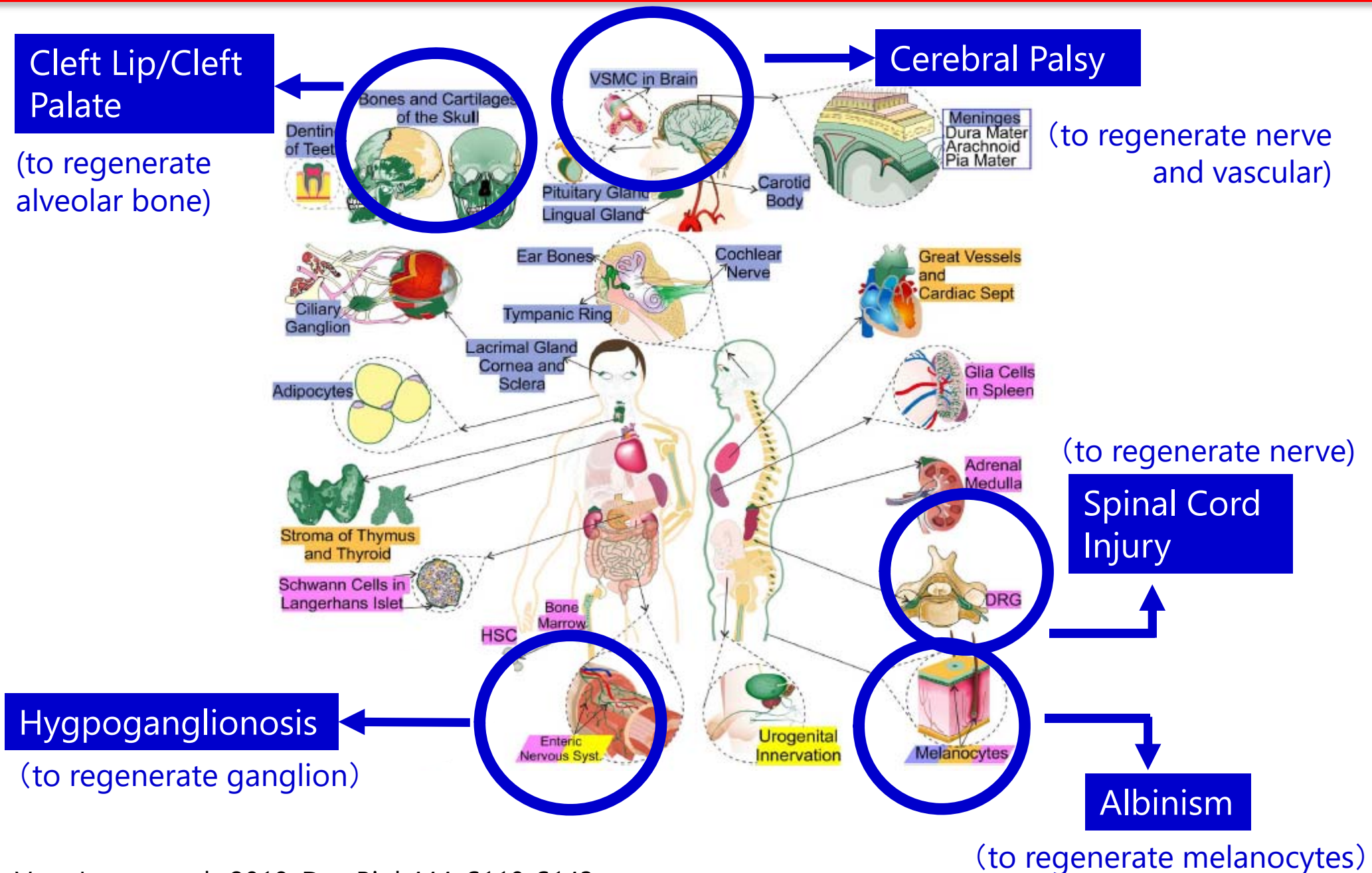
Especially, ACTE runs **a stock business of the stem cells from human exfoliated deciduous teeth (SHED)**

Features of SHED	Benefits in Research and Development
<ul style="list-style-type: none"> <li>➤ <b>More opportunities</b> to extract as it is exfoliated deciduous teeth and <b>less burden</b> on a donor</li> <li>➤ <b>Easy to differentiate</b> into bone, cartilage and nerve cells</li> <li>➤ <b>More active</b> as the stem cell is extracted from exfoliated deciduous teeth</li> </ul>	<ul style="list-style-type: none"> <li>➤ Due to more opportunities for extraction, possible to secure a <b>wealth of resources</b> for R&amp;D, and it enables to provide pharmaceutical companies with the stem cells</li> <li>➤ <b>Applicable for nervous system diseases</b> such as spinal cord injury from its differentiation characteristics</li> <li>➤ As it is young stem cells, it has higher capability of differentiation, proliferation. <b>Higher tissue regeneration ability</b> is expected.</li> </ul>



Enable to realize solid research and development - low-risk and high certainty by securing the stable stem cells platform and qualifying the targeted disease area.

# Target Diseases in GTS Cell Therapy Business



# Outline of Target Disease

## Cleft Lip/Cleft Palate

**Pediatric**

1. Eating/speech disorder
2. Lip arthroplasty + iliac bone graft
3. 2,000 newborns / year
4. Maxilla bone regeneration

## Cerebral Palsy

**Pediatric**

1. Quadriplegia
2. Not established
3. 2,000 newborns / year
4. Nerve, vascular regeneration

## Hyppoganglionosis

**Pediatric**

1. Intestinal obstruction (mortality : 22%)  
(Intestinal peristalsis disorder)
2. Enterectomy, colostomy
3. 100 people (\*No. 101)
4. Ganglion regeneration

1. Symptom
  2. Existing treatment
  3. Number of patients
  4. Goal for treatment

## Spinal Cord Injury

1. Loss of motor function and sensory perception
2. Not established
3. 5,000 people / year, 100,000 people in total
4. Nerve regeneration

## Albinism

**Pediatric**

1. Visual impairment, photophobia
2. Not established
3. 8,000 people (\*No.164 and \*\*No.1)
4. Melanocytes regeneration

Notification number in the list designated by Japanese MOH for;

\* Intractable/rare diseases

\*\* grant-in-aid program for chronic diseases in childhood

## Sign a joint research & development agreement with ORTHOREBIRTH

### < Aim to develop therapeutic treatments for cleft lip/cleft palate >

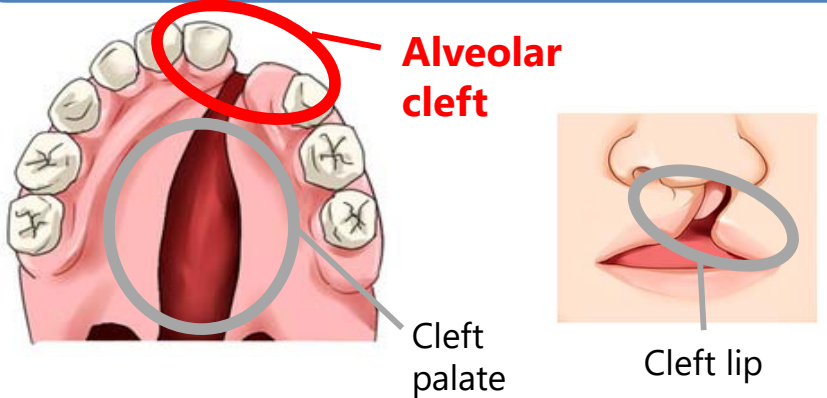
- Develop therapeutic product for alveolar cleft by the combination of SHED and ReBOSSIS (artificial bone filling material)
  - Cleft lip/cleft palate is a disease caused by an abnormality in neural crest cells, therefore SHED is considered to be an optimal cell source as it is derived from neural crest cells.
  - Artificial bone filling material, ReBOSSIS, is compatible with SHED from its characteristics, and expected to have superior osteogenesis capability.
  - Point : Non-invasive, treatment in earlier stage (preschool), low cost

### <Target disease and treatment concept>

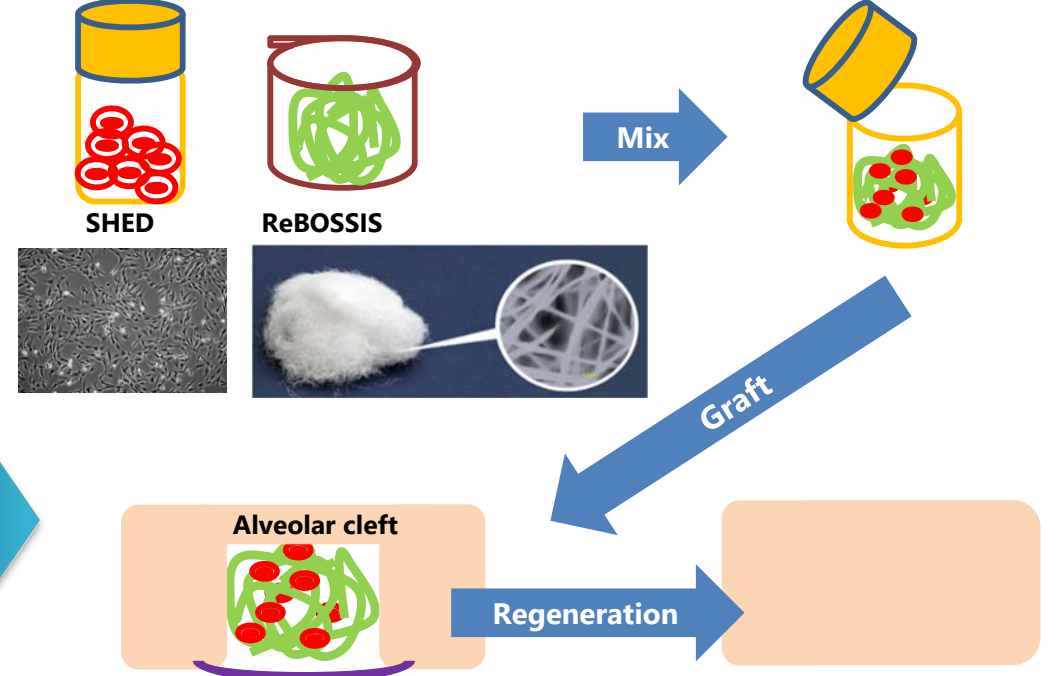
**Cleft lip/Alveolus cleft (approx. 1000 people/yr)**

- regurgitation of nasal discharge
- mastication disorder
- dysphonia

Current treatment is grafting autologous (own) bone, which is highly invasive



Apply both SHED and REBOSIS (scaffold), and promote better bone regeneration














# Product Pipeline Update

# Progress in each pipeline

## (1) Biosimilars Business

Project	Therapeutic Area	Development Research	Clinical Trial		Application/ Marketing/ Approval/ Launch	Partner
			Phase 1	Phase 3		
<b>GBS-001</b> Filgrastim	Oncology					Fuji Pharma Co., Ltd. Mochida Pharmaceutical Co., Ltd.
<b>GBS-004</b> Bevacizumab	Oncology					
<b>GBS-005</b> Adalimumab	Immunological disease					Terminating an agreement with Changchun Changsheng Life Sciences Limited (China) and searching new partners
<b>GBS-007</b>	Ophthalmic disease				<b>UPDATE!!</b>	Senju Pharmaceutical Co., Ltd. License out to Ocumension Therapeutics (China and Taiwan)
<b>GBS-008</b> Palivizumab	Infectious disease					
<b>GBS-010</b> PEG-filgrastim	Oncology					
<b>GBS-011</b> Darbeopetin alfa	Renal disease				<b>UPDATE!!</b>	Sanwa Kagaku Kenkyusho Co., Ltd.

# Progress in each pipeline

## (2) New biologics business

Project	Therapeutic Area	Basic Research	Development Research	Clinical Trial			Application/Marketing/Approval/Launch	Partner
				Phase 1	Phase 2	Phase 3		
<b>GND-001</b> Anti alpha-9 integrin antibody	Immunological disease, Oncology							Kaken Pharmaceutical Co., Ltd.
<b>GND-004</b> Anti RAMP2 antibody	Ophthalmic disease, Oncology							Looking for partners
<b>GND-007</b>	Immunological disease							

## (3) New biotech business (regenerative medicine)

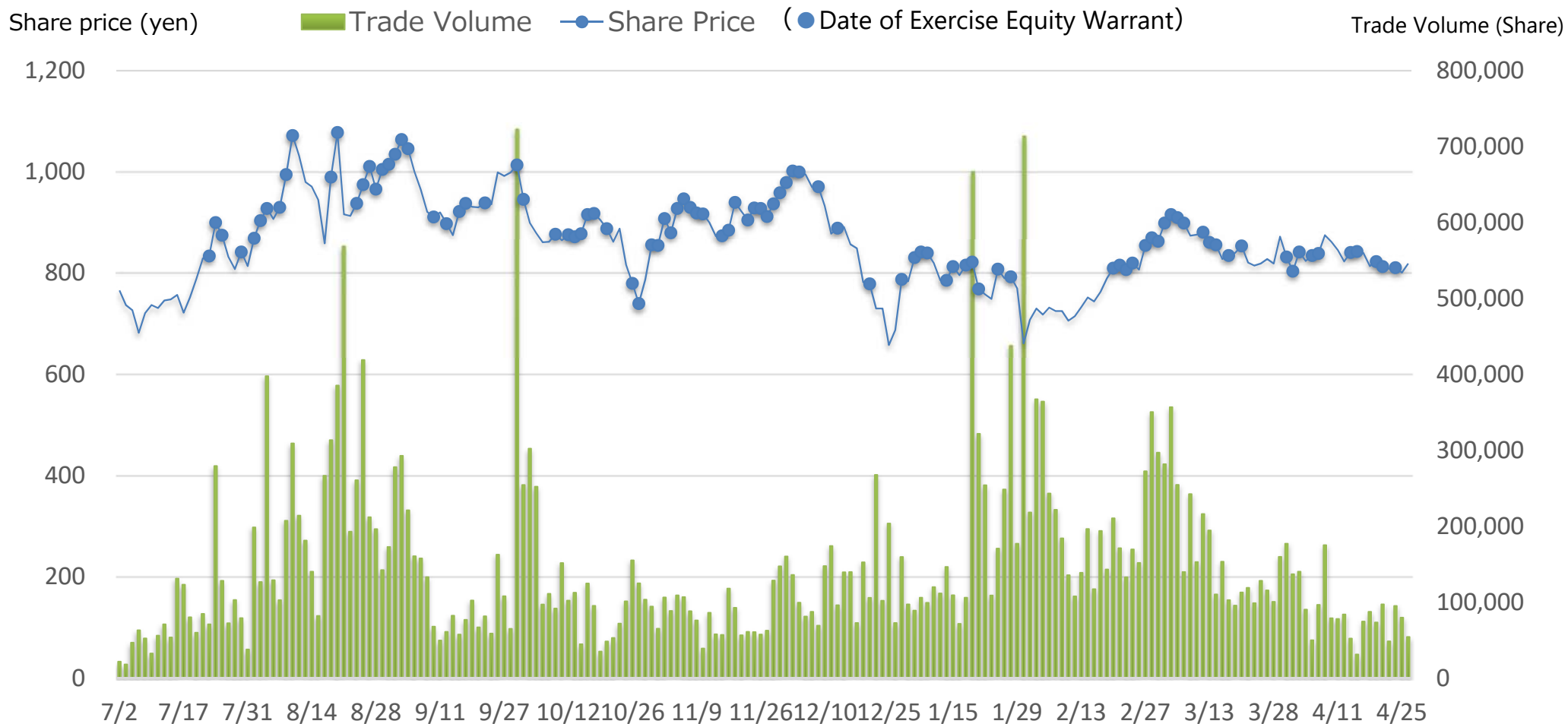
Project	Basic Research	Clinical Trial	Conditional and Time-limited Authorization※	Marketing (Further confirmation on safety and efficacy)	Marketing Authorization	Marketing Continues	Partner
<b>GCT-101</b> Cell therapy using SHED for alveolar cleft							Orthorebirth Co., Ltd.
<b>JRM-001</b> Cell therapy using cardiac stem cell for hypoplastic left heart syndrome							Japan Regenerative Medicine Co., Ltd.
Induction of immune tolerance for organ transplant							Juntendo University Juntan Bio Co., Ltd.
Cell therapy using mesenchymal stem cell derived from bone marrow for diabetic nephropathy							Sapporo Medical University Minerva Medica Co., Ltd.

※Expedited approval system for regenerative medicine  
Post-marketing safety measures must be taken, including prior informed consent of risk to patients.



# Financing Status

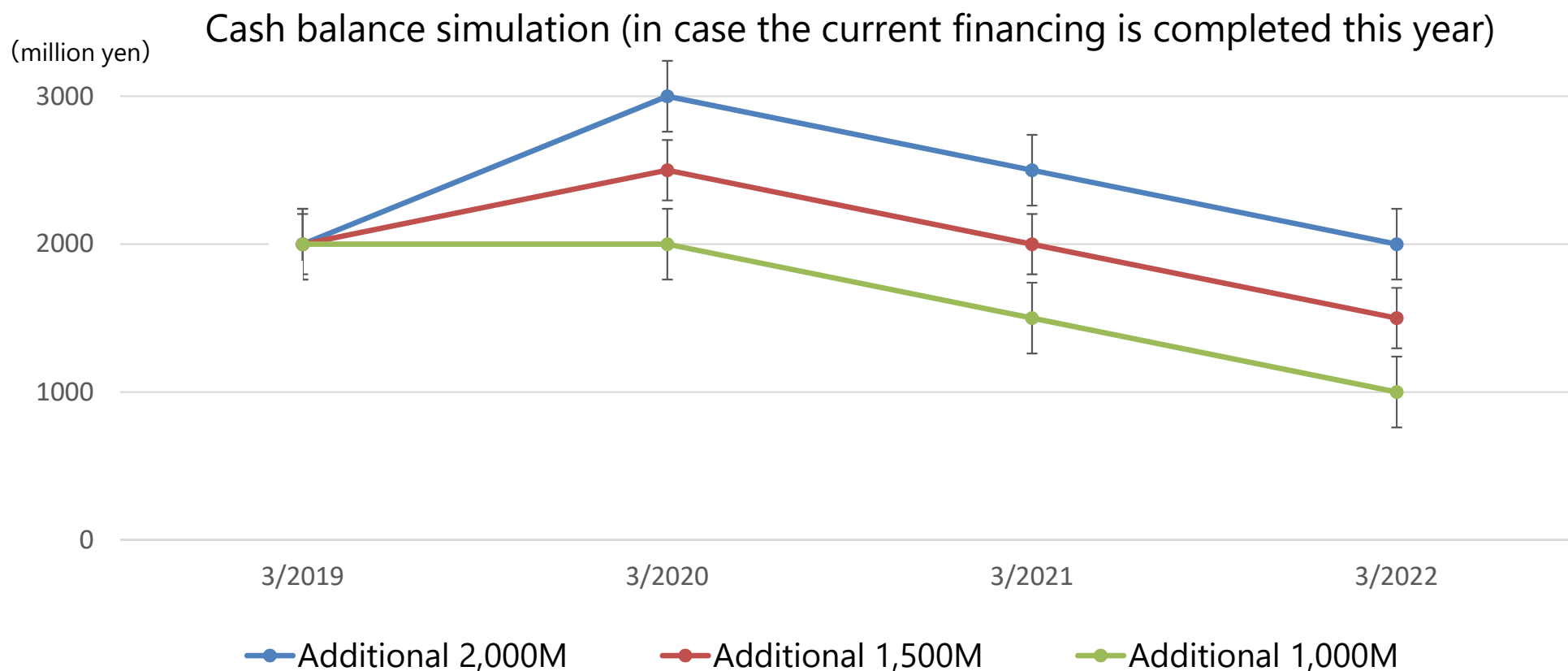
# Financing status (as of the end of April 2019)



Cumulative number exercised (as of the end of April)	6,257	1,251,400 shares	(exercise ratio 41.71%)
Remaining	8,743	1,748,600 shares	
Total amount paid-in		1,012,153,640 yen	

# Financing Policy

- ✓ Continue the current financing with moving-strike warrant
- ✓ Scrutinize financing plan in line with the changes in business strategy
  - Respond flexibly to the impact of shifting the focus of business from biosimilars to new biologics, regenerative medicine / cell therapy



# **Gene Techno Science**



***Biotech Engineering Company,  
striving for value creation***