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Shanghai Haohai Biological Technology Co., Ltd.*

上海昊海生物科技股份有限公司

(a joint stock company incorporated in the People's Republic of China with limited liability)

(Stock Code: 6826)

**ANNOUNCEMENT OF ANNUAL RESULTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

HIGHLIGHTS OF ANNUAL RESULTS FOR THE YEAR ENDED 31 DECEMBER 2019

- During the Reporting Period, the Group recorded revenue of approximately RMB1,595.50 million, representing an increase of RMB49.68 million, or approximately 3.21%, as compared to that in 2018.
- During the Reporting Period, the Group continued to increase investment in R&D, focusing on expanding the innovative products lines of ophthalmology and medical aesthetics. The current R&D expenses were RMB116.08 million, representing an increase of RMB20.71 million, or 21.71%, as compared to that in 2018. The proportion of R&D expenses in revenue increased from 6.17% in 2018 to 7.28% in the Reporting Period.
- During the Reporting Period, the Group's net profit attributable to owners of the parent was RMB370.78 million, decreased by 10.56% compared to 2018.
- The Group continues to maintain its leading position in the industry: the domestic market shares of intra-articular viscosupplement, anti-adhesion products and ophthalmic viscoelastic devices products rank first in the domestic market, representing 39.7%, 48.9% and 46.9% respectively in 2018; whilst the market share of rhEGF products for external use "Healin", continued to increase and reached 20.4%, ranking the second place in the domestic market.

- The Company was successfully listed on the Sci-tech Innovation Board of the Shanghai Stock Exchange on 30 October 2019, and became the first bio-medical enterprise of “H + Sci-tech Innovation Board”. 17,800,000 ordinary shares (“**A Shares**”) were issued, the total fund raised amounted to approximately RMB1,588.29 million. After deducting the issuing expenses, the net proceeds amounted to approximately RMB1,529.27 million and are mainly invested in the construction of the international medical R&D and industrialization project by Shanghai Haohai Biological Technology Co., Ltd. (上海昊海生科國際醫藥研發及產業化項目) and the improvement of the production capacity and R&D innovation level of the Group’s series products (such as medical sodium hyaluronate series, medical chitosan series, and rhEGF for external use) to meet the increasing market demand.
- The Board proposed to declare the final dividend of RMB0.7 (inclusive of tax) per share for the year ended 31 December 2019.

The board of directors (the “**Board**”) of Shanghai Haohai Biological Technology Co., Ltd.* (the “**Company**” or “**Haohai Biological Technology**”) is pleased to announce the audited consolidated annual results of the Company and its subsidiaries (the “**Group**”, “**we**”, “**our**” or “**us**”) for the year ended 31 December 2019 (the “**Reporting Period**”), together with the comparative figures for the year ended 31 December 2018.

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

Year ended 31 December 2019

	<i>Notes</i>	2019 RMB'000	2018 RMB'000
REVENUE	4	1,595,498	1,545,824
Cost of sales		<u>(363,999)</u>	<u>(334,286)</u>
Gross profit		1,231,499	1,211,538
Other income and gains, net	4	129,498	143,840
Selling and distribution expenses		(544,128)	(495,075)
Administrative expenses		(268,985)	(242,410)
Impairment losses on financial assets		923	(2,508)
Research and development costs		(116,076)	(95,370)
Other expenses		(21,756)	(4,196)
Finance costs		(4,538)	(2,148)
Share of profits and losses of:			
A joint venture/Joint ventures		27,550	10,315
An associate		<u>362</u>	<u>1,199</u>
PROFIT BEFORE TAX	5	434,349	525,185
Income tax expense	6	<u>(57,972)</u>	<u>(70,106)</u>
PROFIT FOR THE YEAR		<u>376,377</u>	<u>455,079</u>
OTHER COMPREHENSIVE INCOME			
Other comprehensive income/(loss) that may be reclassified to profit or loss in subsequent periods:			
Exchange differences on translation of foreign operations		<u>22,019</u>	<u>(2,205)</u>
Net other comprehensive income/(loss) that may be reclassified to profit or loss in subsequent periods		<u>22,019</u>	<u>(2,205)</u>

	<i>Notes</i>	2019 <i>RMB'000</i>	2018 <i>RMB'000</i>
Other comprehensive income that will not be reclassified to profit or loss in subsequent periods:			
Equity investments designated at fair value through other comprehensive income:			
Changes in fair value		(80)	32,704
Gain on disposal		8,269	52,504
Income tax effect		(1,365)	(7,876)
		6,824	77,332
Net other comprehensive income that will not be reclassified to profit or loss in subsequent periods		6,824	77,332
OTHER COMPREHENSIVE INCOME FOR THE YEAR, NET OF TAX		28,843	75,127
TOTAL COMPREHENSIVE INCOME FOR THE YEAR		405,220	530,206
Profit attributable to:			
Owners of the parent		370,779	414,540
Non-controlling interests		5,598	40,539
		376,377	455,079
Total comprehensive income attributable to:			
Owners of the parent		394,023	490,972
Non-controlling interests		11,197	39,234
		405,220	530,206
EARNINGS PER SHARE ATTRIBUTABLE TO ORDINARY EQUITY HOLDERS OF THE PARENT			
Basic and diluted (RMB)			
– For profit for the year	8	2.27	2.59

CONSOLIDATED STATEMENT OF FINANCIAL POSITION*31 December 2019*

	<i>Notes</i>	2019 <i>RMB'000</i>	2018 <i>RMB'000</i>
NON-CURRENT ASSETS			
Property, plant and equipment		895,071	703,852
Right-of-use assets	9	216,714	–
Prepaid land lease payments	9	–	38,722
Other intangible assets		430,609	428,394
Goodwill		333,493	332,003
Investment in a joint venture	10	–	350,000
Investment in an associate		5,329	4,700
Equity investments designated at fair value through other comprehensive income		292,630	236,900
Deferred tax assets		18,393	17,013
Other non-current assets		14,257	30,877
Total non-current assets		2,206,496	2,142,461
CURRENT ASSETS			
Inventories		239,988	197,631
Trade and bills receivables	11	389,999	384,829
Prepayments, other receivables and other assets		92,880	187,401
Pledged deposits		–	4,340
Cash and bank balances		3,222,508	1,438,407
A joint venture classified as held for sale	10	–	81,283
Total current assets		3,945,375	2,293,891
CURRENT LIABILITIES			
Trade and bills payables	12	36,786	41,183
Other payables and accruals		263,319	364,589
Interest-bearing bank and other borrowings	13	25,710	20,269
Tax payable		34,152	25,276
Total current liabilities		359,967	451,317
NET CURRENT ASSETS		3,585,408	1,842,574
TOTAL ASSETS LESS CURRENT LIABILITIES		5,791,904	3,985,035

	<i>Notes</i>	2019 <i>RMB'000</i>	2018 <i>RMB'000</i>
NON-CURRENT LIABILITIES			
Interest-bearing bank and other borrowings	13	24,002	16,386
Deferred tax liabilities		110,950	126,998
Deferred income		3,599	6,204
Total non-current liabilities		138,551	149,588
NET ASSETS		5,653,353	3,835,447
EQUITY			
Equity attributable to ordinary equity holders of the parent			
Share capital	14	177,845	160,045
Reserves		5,276,935	3,451,466
		5,454,780	3,611,511
Non-controlling interests		198,573	223,936
Total equity		5,653,353	3,835,447

NOTES TO FINANCIAL STATEMENTS

31 December 2019

1. CORPORATE AND GROUP INFORMATION

The Company was established as a limited liability company on 24 January 2007 in the People's Republic of China, (the “**PRC**”), and the Company was transformed into a joint stock company with limited liability on 2 August 2010. The registered office of the Company is located at No. 5 Tongjing Road, Songjiang Industrial Zone, Shanghai, PRC. The Company issued 40,000,000 H shares and 45,300 H shares on 30 April 2015 and 28 May 2015, respectively. The H shares of the Company have been listed on the Main Board of The Stock Exchange of Hong Kong Limited (the “**HKSE**”) since 30 April 2015. The Company issued 17,800,000 A shares on 30 October 2019 (“A Share Offering”). The A shares of the Company have been listed on the Sci-tech Innovation Board of the Shanghai Stock Exchange (the “**SSE**”) since 30 October 2019. Total number of issued shares of the Company after the A Share Offering was 177,845,300 shares (comprising 40,045,300 H Shares and 137,800,000 A Shares).

During the year, the Group was principally engaged in the manufacture and sale of biologicals, medical hyaluronate and ophthalmology products, research and development of biological engineering, pharmaceutical and ophthalmology products and the provision of related services.

In the opinion of the directors of the Company (the “**Directors**”), the ultimate controlling shareholders of the Company are Mr. Jiang Wei and his spouse, Ms. You Jie (the “**Controlling Shareholders**”).

Information about subsidiaries

Particulars of the Company's principal subsidiaries are as follows:

Name	Place and date of incorporation/registration and place of business	Paid-up capital/ registered share capital	Percentage of equity interest attributable to the Company		Principal activities
			Direct %	Indirect %	
上海其勝生物制劑有限公司 Shanghai Qisheng Biologicals Co., Ltd.* ("Shanghai Qisheng")	PRC/Mainland China 27 May 1992	RMB160,000,000	100	–	Manufacture and sale of biological reagents, biologicals and biological materials
上海利康瑞生物工程有限公司 Shanghai Likangrui Bioengineering Co., Ltd.* ("Shanghai Likangrui")	PRC/Mainland China 3 September 2001	RMB150,000,000	100	–	Research and development of biological engineering and pharmaceutical products and related technology transfer, consultation and services
Haohai Healthcare Holdings Co., Limited. ("Haohai Holdings")	Hong Kong 17 July 2015	HKD153,000,000	100	–	Investment and trading business

Name	Place and date of incorporation/registration and place of business	Paid-up capital/ registered share capital	Percentage of equity interest attributable to the Company		Principal activities
			Direct %	Indirect %	
河南宇宙人工晶狀體研製有限公司 Henan Universe Intraocular Lens Research and Manufacture Co., Ltd.* ("Henan Universe")	PRC/Mainland China 23 April 1991	RMB9,923,200	–	100	Manufacture and sale of intraocular lens and related products
深圳市新產業眼科新技術有限公司 Shenzhen New Industries Material of Ophthalmology Co., Ltd.* ("NIMO")	PRC/Mainland China 27 April 2006	RMB11,000,000	–	60	Sale of ophthalmology products
Contamac Limited	U.K. 10 May 1991	GBP1,000	–	70	Manufacture and sale of contact lens and intraocular lens material, machines and accessories

* English translations of names for identification purposes only

* All of the Company's subsidiaries registered in the PRC are limited liability companies under PRC law.

The above table lists the subsidiaries of the Company which, in the opinion of the Directors, principally affected the results for the year or formed a substantial portion of the net assets of the Group. To give details of other subsidiaries would, in the opinion of the Directors, result in particulars of excessive length.

2.1 BASIS OF PRESENTATION

These financial statements have been prepared in accordance with the International Financial Reporting Standards ("IFRSs"), which comprise all standards and interpretations approved by the International Accounting Standards Board ("IASB"), and the disclosure requirements of the Hong Kong Companies Ordinance. They have been prepared under the historical cost convention, except for certain equity investments and certain other payables and accruals, which have been measured at fair value. Non-current assets held for sale are stated at the lower of their carrying amounts and fair values less costs to sell. These financial statements are presented in Renminbi ("RMB") and all values are rounded to the nearest thousand except when otherwise indicated.

Basis of consolidation

The consolidated financial statements include the financial statements of the Company and its subsidiaries (collectively referred to as the "Group") for the year ended 31 December 2019. A subsidiary is an entity (including a structured entity), directly or indirectly, controlled by the Company. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee (i.e., existing rights that give the Group the current ability to direct the relevant activities of the investee).

When the Company has, directly or indirectly, less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including:

- (a) the contractual arrangement with the other vote holders of the investee;
- (b) rights arising from other contractual arrangements; and
- (c) the Group's voting rights and potential voting rights.

The financial statements of the subsidiaries are prepared for the same reporting period as the Company, using consistent accounting policies. The results of subsidiaries are consolidated from the date on which the Group obtains control, and continue to be consolidated until the date that such control ceases.

Profit or loss and each component of other comprehensive income are attributed to the owners of the parent of the Group and to the non-controlling interests, even if this results in the non-controlling interests having a deficit balance. All intra-group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control described above. A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction.

If the Group loses control over a subsidiary, it derecognises (i) the assets (including goodwill) and liabilities of the subsidiary, (ii) the carrying amount of any non-controlling interest and (iii) the cumulative translation differences recorded in equity; and recognises (i) the fair value of the consideration received, (ii) the fair value of any investment retained and (iii) any resulting surplus or deficit in profit or loss. The Group's share of components previously recognised in other comprehensive income is reclassified to profit or loss or retained profits, as appropriate, on the same basis as would be required if the Group had directly disposed of the related assets or liabilities.

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES

The Group has adopted the following new and revised IFRSs for the first time for the current year's financial statements.

Amendments to IFRS 9	<i>Prepayment Features with Negative Compensation</i>
IFRS 16	<i>Leases</i>
Amendments to IAS 19	<i>Plan Amendment, Curtailment or Settlement</i>
Amendments to IAS 28	<i>Long-term Interests in Associates and Joint Ventures</i>
IFRIC 23	<i>Uncertainty over Income Tax Treatments</i>
<i>Annual Improvements to IFRSs 2015-2017 Cycle</i>	Amendments to IFRS 3, IFRS 11, IAS 12 and IAS 23

Except for the amendments to IFRS 9 and IAS 19, and *Annual Improvements to IFRSs 2015-2017 Cycle*, which are not relevant to the preparation of the Group's financial statements, the nature and the impact of the new and revised IFRSs are described below:

IFRS 16 replaces IAS 17 *Leases*, IFRIC 4 *Determining whether an Arrangement contains a Lease*, SIC 15 *Operating Leases – Incentives* and SIC 27 *Evaluating the Substance of Transactions Involving the Legal Form of a Lease*. The standard sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to account for all leases under a single on-balance sheet model to recognise and measure right-of-use assets and lease liabilities, except for certain recognition exemptions.

The Group has adopted IFRS 16 using the modified retrospective method with the date of initial application of 1 January 2019. Under this method, the standard has been applied retrospectively with the cumulative effect of initial adoption recognised as an adjustment to the opening balance of retained profits at 1 January 2019, and the comparative information for 2018 was not restated and continued to be reported under IAS 17 and related interpretations.

New definition of a lease

Under IFRS 16, a contract is, or contains, a lease if the contract conveys a right to control the use of an identified asset for a period of time in exchange for consideration. Control is conveyed where the customer has both the right to obtain substantially all of the economic benefits from use of the identified asset and the right to direct the use of the identified asset. The Group elected to use the transition practical expedient allowing the standard to be applied only to contracts that were previously identified as leases applying IAS 17 and IFRIC 4 at the date of initial application. Contracts that were not identified as leases under IAS 17 and IFRIC 4 were not reassessed. Therefore, the definition of a lease under IFRS 16 has been applied only to contracts entered into or changed on or after 1 January 2019.

As a lessee – Leases previously classified as operating leases

Nature of the effect of adoption of IFRS 16

The Group has lease contracts for various items of property. As a lessee, the Group previously classified leases as either finance leases or operating leases based on the assessment of whether the lease transferred substantially all the rewards and risks of ownership of assets to the Group. Under IFRS 16, the Group applies a single approach to recognise and measure right-of-use assets and lease liabilities for all leases, except for two elective exemptions for leases of low-value assets (elected on a lease-by-lease basis) and leases with a lease term of 12 months or less (“short-term leases”) (elected by class of underlying asset). Instead of recognising rental expenses under operating leases on a straight-line basis over the lease term commencing from 1 January 2019, the Group recognises depreciation (and impairment, if any) of the right-of-use assets and interest accrued on the outstanding lease liabilities (as finance costs).

Impact on transition

Lease liabilities at 1 January 2019 were recognised based on the present value of the remaining lease payments, discounted using the incremental borrowing rate at 1 January 2019 and included in interest-bearing bank and other borrowings. The right-of-use assets were measured at the amount of the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to the lease recognised in the statement of financial position immediately before 1 January 2019.

All these assets were assessed for any impairment based on IAS 36 on that date. The Group elected to present the right-of-use assets separately in the statement of financial position.

The Group has used the following elective practical expedients when applying IFRS 16 at 1 January 2019:

- Applying the short-term lease exemptions to leases with a lease term that ends within 12 months from the date of initial application
- Using hindsight in determining the lease term where the contract contains options to extend/terminate the lease
- Applying a single discount rate to a portfolio of leases with reasonably similar characteristics when measuring the lease liabilities at 1 January 2019

Financial impact at 1 January 2019

The impact arising from the adoption of IFRS 16 at 1 January 2019 was as follows:

	Increase/ (decrease) RMB'000
Assets	
Increase in right-of-use assets	83,733
Decrease in prepaid land lease payment	(38,722)
Decrease in prepayments, other receivables and other assets	(1,328)
	43,683
Liabilities	
Increase in interest-bearing bank and other borrowings	43,683
The lease liabilities as at 1 January 2019 reconciled to the operating lease commitments as at 31 December 2018 are as follows:	
	<i>RMB'000</i>
Operating lease commitments as at 31 December 2018	51,538
Less: Commitments relating to short-term leases and those leases with a remaining lease term ended on or before 31 December 2019	2,241
	49,297
Weighted average incremental borrowing rate as at 1 January 2019	4.24%
Discounted operating lease commitments as at 1 January 2019	43,683
Lease liabilities as at 1 January 2019	43,683

Amendments to IAS 28 clarify that the scope exclusion of IFRS 9 only includes interests in an associate or joint venture to which the equity method is applied and does not include long-term interests that in substance form part of the net investment in the associate or joint venture, to which the equity method has not been applied. Therefore, an entity applies IFRS 9, rather than IAS 28, including the impairment requirements under IFRS 9, in accounting for such long-term interests. IAS 28 is then applied to the net investment, which includes the long-term interests, only in the context of recognising losses of an associate or joint venture and impairment of the net investment in the associate or joint venture. The Group assessed its business model for its long-term interests in associates and joint ventures upon adoption of the amendments on 1 January 2019 and concluded that the long-term interests in associates and joint ventures continued to be measured at amortised cost in accordance with IFRS 9. Accordingly, the amendments did not have any impact on the financial position or performance of the Group.

IFRIC 23 addresses the accounting for income taxes (current and deferred) when tax treatments involve uncertainty that affects the application of IAS 12 (often referred to as “uncertain tax positions”). The interpretation does not apply to taxes or levies outside the scope of IAS 12, nor does it specifically include requirements relating to interest and penalties associated with uncertain tax treatments. The interpretation specifically addresses (i) whether an entity considers uncertain tax treatments separately; (ii) the assumptions an entity makes about the examination of tax treatments by taxation authorities; (iii) how an entity determines taxable profits or tax losses, tax bases, unused tax losses, unused tax credits and tax rates; and (iv) how an entity considers changes in facts and circumstances. Upon adoption of the interpretation, the Group considered whether it has any uncertain tax positions arising from the transfer pricing on its intergroup sales. Based on the Group’s tax compliance and transfer pricing study, the Group determined that it is probable that its transfer pricing policy will be accepted by the tax authorities. Accordingly, the interpretation did not have any impact on the financial position or performance of the Group.

2.3 ISSUED BUT NOT YET EFFECTIVE INTERNATIONAL FINANCIAL REPORTING STANDARDS

The Group has not applied the following new and revised IFRSs, that have been issued but are not yet effective, in these financial statements.

Amendments to IFRS 3	<i>Definition of a Business¹</i>
Amendments to IFRS 9, IAS 39 and IFRS 7	<i>Interest Rate Benchmark Reform¹</i>
Amendments to IFRS 10 and IAS 28 (2011)	<i>Sale or Contribution of Assets between an Investor and its Associate or Joint Venture⁴</i>
IFRS 17	<i>Insurance Contracts³</i>
Amendments to IAS 1 and IAS 8	<i>Definition of Material¹</i>
Amendments to IAS 1	<i>Classification of Liabilities as Current or Non-current²</i>

¹ Effective for annual periods beginning on or after 1 January 2020

² Effective for annual periods beginning on or after 1 January 2022

³ Effective for annual periods beginning on or after 1 January 2023

⁴ No mandatory effective date yet determined but available for adoption

Further information about those IFRSs that are expected to be applicable to the Group is described below.

Amendments to IFRS 3 clarify and provide additional guidance on the definition of a business. The amendments clarify that for an integrated set of activities and assets to be considered a business, it must include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create output. A business can exist without including all of the inputs and processes needed to create outputs. The amendments remove the assessment of whether market participants are capable of acquiring the business and continue to produce outputs. Instead, the focus is on whether acquired inputs and acquired substantive processes together significantly contribute to the ability to create outputs. The amendments have also narrowed the definition of outputs to focus on goods or services provided to customers, investment income or other income from ordinary activities. Furthermore, the amendments provide guidance to assess whether an acquired process is substantive and introduce an optional fair value concentration test to permit a simplified assessment of whether an acquired set of activities and assets is not a business. The Group expects to adopt the amendments prospectively from 1 January 2020. Since the amendments apply prospectively to transactions or other events that occur on or after the date of first application, the Group will not be affected by these amendments on the date of transition.

Amendments to IAS 1 and IAS 8 provide a new definition of material. The new definition states that information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements. The amendments clarify that materiality will depend on the nature or magnitude of information. A misstatement of information is material if it could reasonably be expected to influence decisions made by the primary users. The Group expects to adopt the amendments prospectively from 1 January 2020. The amendments are not expected to have any significant impact on the Group's financial statements.

The amendments to IAS 1 clarify (i) what is meant by a right to defer settlement; (ii) that a right to defer must exist at the end of the reporting period; (iii) that classification is unaffected by the likelihood that an entity will exercise its deferral right; and (iv) that only if an embedded derivative in a convertible liability is itself an equity instrument would the terms of a liability not impact its classification. The amendments also clarify amendments that the requirement for the right to exist at the end of the reporting period applies regardless of whether the lender tests for compliance at that date or at a later date. The amendments are effective for annual periods beginning on or after 1 January 2022. Early application is permitted. The management is currently in the process of assessing the impact to the Group's financial statements.

3. OPERATING SEGMENT INFORMATION

For management purposes, the Group's operating activities are related to a single operating segment, the manufacture and sale of biologicals, medical hyaluronate, intraocular lens, research and development of biological engineering and pharmaceutical products and the provision of related services. Therefore, management monitors the operating results of the Group's operating segment as a whole for the purpose of making decisions about resources allocation and performance assessment.

Geographical information

(a) Revenue from external customers

	2019 <i>RMB'000</i>	2018 <i>RMB'000</i>
Mainland China	1,399,528	1,380,919
USA	78,081	81,403
U.K.	10,333	10,367
Other regions and countries	107,556	73,135
	<u>1,595,498</u>	<u>1,545,824</u>

The revenue information of continuing operations above is based on the locations of the customers.

(b) Non-current assets

	2019 <i>RMB'000</i>	2018 <i>RMB'000</i>
Mainland China	1,495,695	1,543,218
USA	108,610	92,342
U.K.	276,674	252,425
Other regions and countries	14,494	563
	<u>1,895,473</u>	<u>1,888,548</u>

The non-current asset information of continuing operations above is based on the locations of the assets and excludes equity investments designated at fair value through other comprehensive income and deferred tax assets.

Information about major customers

No revenue from a single customer contributed to 10% or more of the Group's revenue during the year.

4. REVENUE, OTHER INCOME AND GAINS

An analysis of revenue is as follows:

	2019 RMB'000	2018 <i>RMB'000</i>
<i>Revenue from contracts with customers</i>	1,595,498	1,545,824

	2019 RMB'000	2018 <i>RMB'000</i>
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Revenue from contracts with customers

(a) Disaggregated revenue information

Type of goods sold

Ophthalmology products	709,768	672,075
Orthopedics products	357,932	298,933
Medical aesthetics and wound care products	299,140	337,375
Anti-adhesion and hemostasis products	188,877	199,949
Other products	39,781	37,492

Total	1,595,498	1,545,824
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Timing of revenue recognition

Goods transferred at a point in time	1,595,498	1,545,824
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The following table shows the amounts of revenue recognised in the current reporting period that were included in the contract liabilities at the beginning of the reporting period and recognised from performance obligations satisfied in previous periods:

	2019 RMB'000	2018 <i>RMB'000</i>
Revenue recognised that was included in contract liabilities at the beginning of the reporting period:		
Sale of products	22,418	41,802

(b) Performance obligation

Information about the Group's performance obligation is summarised below:

Sale of products

The performance obligation is satisfied upon delivery of products and payment is generally due within six months from delivery, except for distributors, where payment in advance is normally required.

	2019 <i>RMB'000</i>	2018 <i>RMB'000</i>
<u>Other income and gains</u>		
Bank interest income	66,571	59,087
Government grants (<i>note</i>)	46,325	64,440
Dividend income from equity investments designated at fair value through other comprehensive income	9,756	9,426
Exchange gains	2,150	6,350
Gain on disposal of items of property, plant and equipment	248	—
Others	4,448	4,537
	<u>129,498</u>	<u>143,840</u>

Note:

Various government grants have been received from local government authorities in various regions in the PRC, for compensating research activities. The government grants released have been recorded in other income and gains, among which there were no unfulfilled conditions or contingencies relating to these recognized government grants.

5. PROFIT BEFORE TAX

The Group's profit before tax is arrived at after charging/(crediting):

	2019 <i>RMB'000</i>	2018 <i>RMB'000</i>
Cost of inventories sold	363,999	334,286
Depreciation of property, plant and equipment	68,499	53,901
Depreciation of right-of-use assets (2018: amortisation of prepaid land lease payments)	17,201	1,328
Amortisation of other intangible assets	29,727	28,384
Auditor's remuneration	1,250	1,850
Research and development costs	116,076	95,370
Minimum lease payments under operating leases:		
Land and buildings	–	15,387
Lease payments not included in the measurement of lease liabilities	3,575	–
Employee benefit expense (excluding directors' remuneration)		
–Wages and salaries	298,815	220,990
–Pension scheme contributions	26,872	19,300
Foreign exchange differences, net	(2,150)	(6,350)
Impairment losses on financial assets, net:		
Impairment of trade receivables, net	(794)	8,277
Impairment of financial assets included in prepayments, other receivables and other assets, net	(129)	(5,769)
Write-down of inventories to net realisable value	558	427
Bank interest income	(66,571)	(59,087)
Net loss on disposal of a joint venture classified as held for sale	9,531	–
Investment loss on a subsidiary	9,982	–
Net (gain)/loss on disposal of items of property, plant and equipment	(248)	1,259

6. INCOME TAX

The Company and its subsidiaries, except for Haohai Holdings, Aaren Laboratories, LLC, Aaren Scientific Inc., Contamac Holdings Limited (“**Contamac Holdings**”) and its subsidiaries (“**Contamac Group**”), Haohai Healthcare Holdings (BVI) Co., Ltd. and China Ocean Group Limited (“**China Ocean**”), are registered in the PRC and only have operations in the Mainland China. They are subject to PRC corporate income tax (“**CIT**”) on the taxable income as reported in their PRC statutory accounts adjusted in accordance with relevant PRC income tax laws.

In 2019, the Company, Shanghai Qisheng, Shanghai Jianhua Fine Biological Products Co., Ltd. (“**Shanghai Jianhua**”) and Henan Universe were accredited as high and new-tech enterprises (the “**HNTE Status**”) respectively, effective for the three years from 2017 to 2019 by the relevant authorities. Therefore, the preferential income tax rate of 15% was applied during the years from 2017 to 2019 for the Company, Shanghai Qisheng, Shanghai Jianhua and Henan Universe. NIMO was also accredited with the HNTE Status, effective for the three years from 2018 to 2020 by the relevant authorities. Therefore, the preferential income tax rate of 15% is applied during the years from 2018 to 2020.

The applicable tax rate for the other subsidiaries registered in the Mainland China was 25% during the year.

Hong Kong profits tax has been provided at the rate of 16.5% (2018: 16.5%) on the estimated assessable profits arising in Hong Kong during the year, except for one subsidiary of the Group which is a qualifying entity under the two-tiered profits tax rates regime effective from the year of assessment 2018/2019. The first HK\$2,000,000 of assessable profits of this subsidiary is taxed at 8.25% and the remaining assessable profits are taxed at 16.5%.

The profits tax for subsidiaries in the USA has been provided at the rate of 21% on the estimated assessable profits arising in the USA during the year.

The profits tax for subsidiaries in the U.K. has been provided at the rate of 19% on the estimated assessable profits arising in the U.K. during the year.

The profits tax for subsidiaries in France has been provided at the rate of 28% on the estimated assessable profits arising in France during the year.

	2019 RMB'000	2018 <i>RMB'000</i>
Current		
Charge for the year	81,335	76,330
Underprovision in prior years	(54)	597
Deferred	(23,309)	(6,821)
Total tax charge for the year	57,972	70,106

7. DIVIDENDS

	2019 RMB'000	2018 <i>RMB'000</i>
Proposed 2019 final dividend – RMB0.70 per ordinary share	124,492	–
Proposed 2018 dividend – RMB0.50 per ordinary share	–	80,023
	124,492	80,023

On 26 March 2020, the Directors proposed to declare the final dividend of RMB0.70 (inclusive of tax) per ordinary share, amounting to RMB124,491,710 for the year ended 31 December 2019.

The Directors declared and paid the dividend of RMB0.50 (inclusive of tax) per ordinary share, amounting to RMB80,022,650 for the six months ended 30 June 2018 during the year.

8. EARNINGS PER SHARE ATTRIBUTABLE TO ORDINARY EQUITY HOLDERS OF THE PARENT

The calculation of the basic earnings per share amount is based on the profit attributable to ordinary equity holders of the parent, and the weighted average number of ordinary shares of 163,011,967 (2018: 160,045,300) in issue during the year.

The Group had no potentially dilutive ordinary shares in issue during the years ended 31 December 2019 and 2018.

The calculations of basic and diluted earnings per share is based on:

	2019 <i>RMB'000</i>	2018 <i>RMB'000</i>
Earnings		
Profit attributable to ordinary equity holders of the parent, used in the basic and diluted earnings per share calculations	<u>370,779</u>	<u>414,540</u>
Shares		
Weighted average number of ordinary shares in issue used in the basic and diluted earnings per share calculations	<u>163,011,967</u>	<u>160,045,300</u>

9. LEASES

The Group as a lessee

The Group has lease contracts for various items of land and buildings used in its operations. Lump sum payments were made upfront to acquire the leased land from the owners with lease periods of 20 to 50 years, and no ongoing payments will be made under the terms of these land leases. Leases of buildings generally have lease terms between 2 and 10 years. Generally, the Group is restricted from assigning and subleasing the leased assets outside the Group. There is no lease contract that include extension and termination options and variable lease payments.

(a) *Prepaid land lease payments (before 1 January 2019)*

	2018 <i>RMB'000</i>
Carrying amount at 1 January	41,378
Recognised during the year	<u>(1,328)</u>
Carrying amount at 31 December	40,050
Current portion included in prepayments, other receivables and other assets	<u>(1,328)</u>
Non-current portion	<u>38,722</u>

(b) *Right-of-use assets*

The carrying amounts of the Group's right-of-use assets and the movements during the year are as follows:

	Prepaid land lease payments <i>RMB'000</i>	Buildings <i>RMB'000</i>	Total <i>RMB'000</i>
As at 1 January 2019	40,050	43,683	83,733
Additions	150,037	5,031	155,068
Depreciation charge	<u>(6,702)</u>	<u>(15,385)</u>	<u>(22,087)</u>
As at 31 December 2019	<u>183,385</u>	<u>33,329</u>	<u>216,714</u>

(c) Lease liabilities

The carrying amount of lease liabilities (included under interest-bearing bank and other borrowings) and the movements during the year are as follows:

	2019 Lease liabilities RMB'000
Carrying amount at 1 January	43,683
New leases	5,031
Accretion of interest recognised during the year	2,063
Payments	<u>(16,355)</u>
Carrying amount at 31 December	<u><u>34,422</u></u>
Analysed into:	
Current portion	11,073
Non-current portion	<u><u>23,349</u></u>

(d) The amounts recognised in profit or loss in relation to leases are as follows:

	2019 RMB'000
Interest on lease liabilities	2,063
Depreciation charge of right-of-use assets	22,087
Expense relating to short-term leases and other leases with remaining lease terms ended on or before 31 December 2019 (included in administrative expenses)	<u>3,575</u>
Total amount recognised in profit or loss	<u><u>27,725</u></u>

10. INVESTMENT IN A JOINT VENTURE/A JOINT VENTURE CLASSIFIED AS HELD FOR SALE

	2019 RMB'000	2018 RMB'000
Share of net assets	<u><u>–</u></u>	<u><u>350,000</u></u>

As of 31 December 2018, the Group invested a total of RMB350,000,000 in Changxing Tongrui Investment Partnership Enterprise (Limited Partnership) (“**Changxing Tongrui**”) on which the Group has joint control with a third party. Therefore, the Group recorded its investment in Changxing Tongrui as an investment in a joint venture. As of 31 December 2019, as the target investment project held by Changxing Tongrui was completed, pursuant to the terms of the Changxing Tongrui Limited Partnership Agreement dated 6 November 2017, the Group received all cash distribution from Changxing Tongrui amounted to RMB377,550,000, which consisted of net investment income in the amount of RMB27,550,000 and a refund of the corresponding original principal investment amount contributed by the Group at RMB350,000,000. There's no remaining investment portfolio as of 31 December 2019. Accordingly, share of Changxing Tongrui's profit of RMB27,550,000 was recognised in profit or loss during the Reporting Period (year ended 31 December 2018: RMB10,500,000).

A joint venture classified as held for sale

On 21 December 2018, Contamac Holdings, Contamac Limited, Innovalens B.V. (“**Innovalens**”) and Contateq B.V. (“**Contateq**”, a former joint venture of Contamac Holdings) entered into an agreement (“**Agreement**”), pursuant to which, (i) Contamac Holdings agreed to sell its entire equity interest in Contateq to Innovalens at a consideration of approximately EUR8,500,000; (ii) Contateq agreed to transfer all of its product inventories at the transaction completion date to Contamac Holdings free of charge; (iii) Contateq agreed to repay the loans to the joint venture (the “**JV Loan**”) principal and accrued interest to Contamac Holdings on the transaction completion date; and (iv) the managing director nominated by Contamac Holdings resigned from Contateq. Therefore, the Group’s investment in Contateq was classified as a held for sale from 22 December 2018.

In January 2019, the transaction was completed, pursuant to which, the Group recognised a disposal loss of approximately RMB9,531,000 in profit or loss.

11. TRADE AND BILLS RECEIVABLES

	2019 RMB’000	2018 RMB’000
Bills receivable	8,008	312
Trade receivables	414,704	417,928
Impairment	(32,713)	(33,411)
	389,999	384,829

The Group’s trading terms with its customers are mainly on credit, except for new customers, where payment in advance is normally required. The credit period is generally one to twelve months. The Group seeks to maintain strict control over its outstanding receivables to minimise credit risk. Overdue balances are reviewed regularly by senior management. In view of the aforementioned and the fact that the Group’s trade receivables relate to a large number of diversified customers, there is no significant concentration of credit risk. Trade receivables are non-interest-bearing.

An ageing analysis of trade and bills receivables as at the end of the reporting period, based on the invoice date and net of loss allowance, is as follows:

	2019 RMB’000	2018 RMB’000
Within 1 year	378,334	374,726
1 to 2 years	10,118	8,954
2 to 3 years	1,547	1,149
	389,999	384,829

12. TRADE AND BILLS PAYABLES

	2019 <i>RMB'000</i>	2018 <i>RMB'000</i>
Trade payables	36,786	36,843
Bills payable	–	4,340
	<u>36,786</u>	<u>41,183</u>

An ageing analysis of the trade and bills payables as at the end of the reporting period, based on the invoice date, is as follows:

	2019 <i>RMB'000</i>	2018 <i>RMB'000</i>
Within 3 months	30,341	40,842
3 months to 1 year	6,377	292
Over 1 year	68	49
	<u>36,786</u>	<u>41,183</u>

13. INTEREST-BEARING BANK AND OTHER BORROWINGS

	31 December 2019			1 January 2019		31 December 2018		
	Effective interest rate (%)	Maturity	RMB'000	RMB'000		Effective interest rate (%)	Maturity	RMB'000
Current								
Lease liabilities (note 9(c))	4.24	2020	11,073	13,510	–	–	–	–
Bank loans								
– secured (a)	4.01	2020	5,302	18,894	3.40-3.48	2019	18,894	
Current portion of long term other loans								
– unsecured (d)	–	2020	113	–	–	–	–	–
Current portion of long term bank loans								
– secured (b)/(c)	0.89-2.92	2020	9,222	1,375	2.92	2035	1,375	
			<u>25,710</u>	<u>33,779</u>				<u>20,269</u>
Non-current								
Lease liabilities (note 9(c))	4.24	2021-2028	23,349	30,173	–	–	–	–
Bank loans								
– secured (c)	0.89	2022	144	16,386	2.92	2035	16,386	
Other loans								
– unsecured (d)	–	2023	509	–	–	–	–	–
			<u>24,002</u>	<u>46,559</u>				<u>16,386</u>
			<u>49,712</u>	<u>80,338</u>				<u>36,655</u>

	2019 <i>RMB'000</i>	2018 <i>RMB'000</i>
Analysed into:		
Bank loans and overdrafts repayable:		
Within one year or on demand	14,524	20,810
In the second year	79	1,375
In the third to fifth years, inclusive	65	4,124
Beyond five year	–	10,346
	<u>14,668</u>	<u>36,655</u>
Other borrowings repayable:		
Within one year or on demand	11,186	–
In the second year	7,908	–
In the third to fifth years, inclusive	12,063	–
Beyond five year	3,887	–
	<u>35,044</u>	<u>–</u>
	<u><u>49,712</u></u>	<u><u>36,655</u></u>

Notes:

- (a) The apartments of the non-controlling shareholders of NIMO were pledged for the bank loans, which were also guaranteed by these shareholders.
- (b) Certain of the Group's bank loan at the interest rate of 2.92% is secured by mortgages over Contamac Limited's properties situated in the U.K., with an aggregate carrying value of approximately RMB13,281,000 (2018: RMB12,593,000).
- (c) A bank loan of ODC Industries ("ODC") at the interest rate of 0.89% was secured by mortgages over a vehicle of ODC with a carrying value of approximately RMB342,000.
- (d) The unsecured loan represents an interest-free government loan obtained by ODC.

14. SHARE CAPITAL

	2019 <i>RMB'000</i>	2018 <i>RMB'000</i>
Issued and fully paid:		
177,845,300 (2018: 160,045,300) ordinary shares of RMB1.00 each	<u><u>177,845</u></u>	<u><u>160,045</u></u>

A summary of the Company's share capital is as follows:

	Number of shares in issue	Share capital <i>RMB'000</i>
At 1 January 2019	160,045,300	160,045
A Shares issue (<i>note</i>)	17,800,000	17,800
At 31 December 2019	177,845,300	177,845
At 1 January 2018 and 31 December 2018	160,045,300	160,045

Note :

As approved by the document "Approval in Relation to Registration of the Initial Public Offering of Shanghai Haohai Biological Technology Co., Ltd" (Zheng Jian Xuke [2019] No.1793) granted by China Securities Regulatory Commission, the Company was permitted to issue 17,800,000 ordinary shares (A Share) in RMB to the public at an issue price of RMB89.23 per share. The total amount raised amounted to RMB1,588,294,000. After deducting the issuing expenses, the net proceeds amounted to approximately RMB1,529,269,000. The raised funds have been fully received, and have been verified by Ernst & Young Hua Ming LLP (Special General Partnership), which has issued the Capital Verification report (An Yong Hua Ming (2019) Yan Zi No. 60798948_B04). The proceeds are held in dedicated accounts of the Company. 17,800,000 A Shares of the Company were listed and commenced trading on the Sci-tech Innovation Board of the Shanghai Stock Exchange on 30 October 2019.

15. BUSINESS COMBINATION

On 25 April 2019, the Group acquired 100% equity interest in ODC from the third parties. ODC is engaged in development and manufacture of moulded medical devices. The acquisition was made as part of the Group's strategy to expand its product portfolio of IOL related accessories. The purchase consideration for the acquisition is Euro1,909,000 (approximately RMB14,366,000), which was paid upon completion of the transaction.

The fair values of the identifiable assets and liabilities of ODC as at the date of acquisition were as follows:

	<i>Note</i>	Fair value recognised on acquisition RMB'000
Property, plant and equipment		5,740
Other intangible assets		6,229
Cash and bank balances		14
Trade receivables		43
Inventories		6,408
Prepayments, other receivables and other assets		1,679
Interest-bearing bank and other borrowings		(4,761)
Trade payables		(893)
Deferred tax liabilities		(1,842)
Other payables and accruals		(8,233)
Total identifiable net assets at fair value		4,384
Investment loss on a subsidiary	6	9,982
Satisfied by		
Cash		12,794
Prepayment		1,572
		14,366

The fair values of the trade receivables and other receivables as at the date of acquisition amounted to approximately RMB43,000 and RMB360,000 respectively. No impairment allowances were provided for trade receivables and other receivables as at the date of acquisition.

An investment loss of RMB9,982,000 was recognised by charging to other expense during the year ended 31 December 2019.

An analysis of the cash flows in respect of the acquisition of ODC is as follows:

	<i>RMB'000</i>
Cash consideration paid	12,794
Cash and bank balances acquired	(14)
Net inflow of cash and cash equivalents included in cash flows from investing activities	12,780

Since the acquisition, ODC has contributed RMB1,515,000 to the Group's revenue and incurred net loss of approximately RMB4,436,000 to the consolidated profit or loss for the year ended 31 December 2019.

Had the combination taken place at the beginning of the year, the revenue from continuing operations of the Group and the profit of the Group for the year would have been RMB1,597,952,000 and RMB370,851,000, respectively.

16. EVENTS AFTER THE REPORTING PERIOD

Coronavirus impact

The novel coronavirus (COVID-19) outbreak occurred at a time close to the reporting date and the condition has continued to evolve throughout the time line crossing 31 December 2019. Since January 2020, the coronavirus has already spread nationwide in China and has been spreading globally. The Government of the People's Republic of China has already implemented various emergency public health measures and various actions to combat the coronavirus, including, but not limited to, imposing restriction on the work resumption date after the statutory holidays of the Chinese New Year and lockdown policies in certain cities for prohibiting the movement of goods and people between provinces and/or within provinces and cities.

To ensure the health and safety of employees and customers, the Company has followed the guidelines and requirements of relevant local government departments to arrange its operation in an orderly manner. While the extent of the impact on the Group's business and financial condition is unknown at this time, the Company has begun to be negatively affected by actions taken to address and limit the spread of the coronavirus. Many provinces and cities in China have been resuming work and normal operation. The disrupted supply chain is expected to quickly return to normal with the relief of the coronavirus outbreak.

The Company will keep continuous attention to the situation of the coronavirus, assess and react actively to its impacts on the financial position and operating results of the Company. Up to the date of the report, the assessment is still in progress.

Except for the proposed dividend as disclosed in note 7 to the financial statements and the impact of the coronavirus outbreak above, there was no material subsequent event undertaken by the Group after 31 December 2019.

17. COMPARATIVE FIGURES

As further explained in note 2.2 to the financial statements, the Group adopted IFRS 16 on 1 January 2019 using the modified retrospective approach. Under this approach, the comparative amounts in the financial statements were not restated and continued to be reported under the requirements of the previous standard, IAS 17, and related interpretations.

MANAGEMENT DISCUSSION AND ANALYSIS

Business Review and Discussion

Year 2019 was the last key year for the implementation of the “13th Five-Year Plan” for deepening the reforms of the pharmaceuticals and healthcare system (the “**Plan**”). With the implementation of the Plan, a series of reform policies such as reform of medical insurance payment methods, centralized tendering and procurement with target quantity had continued to deepen. Despite severe challenges in operating results of pharmaceutical and medical device industry as affected by the above factors, they will also have a positive contribution to the healthy, orderly and innovative development of the entire industry. Currently, the rigid market demand brought about by China’s aging population and urbanization has been still driving the steady growth of the industry scale. Under the background of the rapid growth of diversified medical needs, the gradually refining medical insurance payment system and the escalating health consumption concept of Chinese people, leading enterprises with innovative ability, brand value, efficacious products and good financial status are expected to meet with significant development opportunities.

During the Reporting Period, the Group focused on increasing investment in R&D and advancing service upgrade so as to secure the steady growth of the entire principal business.

During the Reporting Period, the Group recorded aggregate revenue of approximately RMB1,595.50 million, representing an increase of RMB49.68 million, or approximately 3.21%, as compared to that in 2018. The breakdown of the Group’s revenue from main business of each product line by therapeutic areas is as follows (by amount and as a percentage of the total revenue of the Group):

Product line	2019		2018		Change (%)
	RMB’000	%	RMB’000	%	
Ophthalmology products	709,768	44.49	672,075	43.48	5.61
Medical aesthetics and wound care products	299,410	18.75	337,375	21.82	-11.25
Orthopedics products	357,932	22.43	298,933	19.34	19.74
Anti-adhesion and hemostasis products	188,877	11.84	199,949	12.93	-5.54
Other products	39,781	2.49	37,492	2.43	6.11
Total	1,595,498	100.00	1,545,824	100.00	3.21

During the Reporting Period, the Group’s sales volume and sales unit price of HA dermal filler products decreased as affected by the periodic industry rectification in the end market of medical aesthetics and the significant decrease in the selling price of competing HA dermal filler products. Attributable to the sustained growth of sales revenue of orthopedic sodium hyaluronate injection, medical chitosan product used for intra-articular viscosupplement, ophthalmic materials and rhEGF product, the Group’s total revenue for the Reporting Period continued to increase from last year.

During the Reporting Period, the overall gross profit margin of the Group was 77.19%, representing a slight decrease as compared to 78.37% in 2018, mainly due to the smaller proportion of HA dermal filler products in the Group's total revenue, which have higher gross profit margin.

During the Reporting Period, the Group continued to increase investment in R&D, focusing on expanding the innovative products lines of ophthalmology and medical aesthetics. The current R&D expenses were RMB116.08 million, representing an increase of RMB20.71 million, or 21.71%, as compared to that in 2018. The proportion of R&D expenses in revenue increased from 6.17% in 2018 to 7.28% in the Reporting Period.

During the Reporting Period, the Group's net profit attributable to owners of the parent was RMB370.78 million, decreased by 10.56% compared to 2018, which was mainly affected by the following multiple factors:

- (1) During the Reporting Period, the Group's R&D expenses increased by approximately RMB20.71 million compared with 2018, representing an increase of 21.71%, which was mainly due to the Group's increased investment in R&D of new ophthalmology products and medical aesthetics products;
- (2) During the Reporting Period, some of the Group's scientific research cooperation projects have not yet reached the acceptance stage, making the current non-recurring government subsidy income decrease by approximately RMB10.02 million compared with 2018;
- (3) Contamac Holdings disposed of its 50% equity interest in Contateq in January 2019, which resulted in the one-off investment loss of approximately RMB9.53 million; and
- (4) In April 2019, Contamac Holdings acquired 100% equity interest of ODC, a French-based manufacturer of IOL injector, which resulted in an one-off investment loss of approximately RMB9.98 million which the Group recognized instead of recognizing the goodwill of the respective acquisition for the period in the principle of prudence after considering the extended period of integration between Contamac Holdings and ODC and uncertainty in profitability of such business.

During the Reporting Period, the basic earnings per share were RMB2.27 (2018: RMB2.59).

The Company was successfully listed on the Sci-tech Innovation Board of the SSE on 30 October 2019, and became the first bio-medicine enterprise of "H + Sci-tech Innovation Board". 17,800,000 A Shares were issued, the total fund raised amounted to RMB1,588,294,000. After deducting the issuing expenses, the net proceeds amounted to approximately RMB1,529,268,800 and are mainly invested in the construction of the international medical R&D and industrialization project by Shanghai Haohai Biological Technology Co., Ltd. (上海昊海生科國際醫藥研發及產業化項目) and the improvement of the production capacity and R&D innovation level of the Group's series products (such as medical sodium hyaluronate series, medical chitosan series, and rhEGF for external use) to meet the increasing market demand.

Ophthalmology Products

In the field of ophthalmology, the Group is the largest OVD product manufacturer in the PRC and one of the internationally renowned manufacturers of IOL. According to the research reports of Guangzhou Biaodian Medical Information Co., Ltd. (“**Biaodian Medical**”) under the National Medical Products Administration (“**NMPA**”) Southern Medicine Economic Research Institute, the market share of the Group’s OVD products was 46.87% in 2018, with a market share of over 40% for the past twelve consecutive years. Based on the sales volume, the Group’s IOL products had captured about 30% of the IOL market in the PRC. In addition, Contamac Holdings, a subsidiary of the Group, is one of the world’s largest independent manufacturers of ophthalmic materials. It provides ophthalmic materials such as materials for IOL and contact lenses to customers worldwide.

During the Reporting Period, the Group’s revenue from the sales of ophthalmology products was approximately RMB709.77 million, representing an increase of approximately RMB37.69 million, or 5.61%, as compared to that in 2018. The breakdown of revenue from ophthalmology products by specific products is as follows:

Project	2019		2018		Change (%)
	RMB’000	%	RMB’000	%	
IOL products	431,735	27.06	431,163	27.90	0.13
Ophthalmic materials	151,690	9.51	122,307	7.91	24.02
OVD products	112,631	7.06	105,752	6.84	6.50
Other ophthalmology products	13,712	0.86	12,853	0.83	6.68
Total	709,768	44.49	672,075	43.48	5.61

Note: The Group has separately listed the revenue of the “IOL” and “Ophthalmic materials” product lines, and adjusted the relevant presentations for 2018 accordingly.

During the Reporting Period, the Group’s revenue from the sales of ophthalmic materials was approximately RMB151.69 million, representing an increase of 24.02% as compared to that in 2018, mainly benefiting from the rapid growth of gas permeable materials in the U.S. market and the widespread recognition of IOL materials worldwide.

During the Reporting Period, Contamac Holdings’ self-developed new-generation gas permeable material “Optimum Infinite” was approved by the US Food and Drug Administration (“**FDA**”) and officially launched on the market. Optimum Infinite is a contact lens production material with an oxygen permeability of over 180 Barrer. It is currently one of the materials with highest gas permeability in the world. Contamac Holdings has successfully broken a recognized rule in the contact lens industry in the past, that is, the higher the oxygen permeability of rigid lenses, the lower the crease resistance, turning ability, scratch resistance, and wettability. In addition, the material also solves the problem of corneal hypoxia caused by long-term wearing of a scleral lens. The launch of Optimum Infinite is a milestone in the contact lens industry. In the future, the Group will continue to explore and innovate in the field of ophthalmic materials, and is committed to providing first-class innovative ophthalmic materials to customers worldwide.

During the Reporting Period, the Group's revenue from the sales of IOL products was approximately RMB431.74 million, which aligned with 2018; the Group's revenue from the sales of OVD products was approximately RMB112.63 million, representing an increase of 6.50% as compared to that in 2018. IOL and OVD products are mainly used for cataract surgery. In 2019, the domestic cataract surgery end market has undergone a periodical regulatory rectification, and cataract screening activities in some medical institutions of some regions have been reduced or suspended. Due to this, the Group's revenue of IOL and OVD products has slowed down.

Cataract is a common and frequently-occurring disease in the middle-aged and elderly population, and it is also the number one blindness-causing disease in the world. According to statistics reported by the World Health Organization, 35% of blindness and 25% of severe visual impairment worldwide come from cataracts that have not been treated in time. At the same time, the incidence of cataract increases with age. According to the statistics of the Chinese Ophthalmological Society, the incidence of cataract for those in the 60-89 age group is 80% and those in the age group over 90 exceeds 90% in China. According to the statistics of the National Bureau of Statistics, as of the end of 2018, there were 249 million people aged 60 and above in the country, accounting for 17.3% of the total population; according to the "Predictive Research Report on the Development Trend of China's Population Aging (《中國人口老齡化發展趨勢預測研究報告》)" issued by the Office of the National Working Committee on Aging(全國老齡工作委員會辦公室), it is estimated that in 2050, China's population over 60 will exceed 400 million. It is foreseeable that age-related eye diseases such as cataracts caused by population aging will continue to increase.

The cataract surgery rate ("CSR") of China is far below the data of developed countries. In 2017, the CSR per million of Chinese population is only 2,205, and only approximately 3.05 million cataract surgeries were performed in China. In contrast, the CSR of Europe, the United States, Japan and other developed countries has exceeded 10,000. Therefore, there is still greater room to improve the cataract surgery operation rate since the market penetration rate of relevant ophthalmic products of China is relatively low to date.

The compliance and rectification in the field of cataract treatment in 2019 has a certain impact on the amount of surgery, but in the long run, the gradual improvement of the compliance will definitely be beneficial to the long-term healthy development of the industry. And cataract treatment is a rigid demand, with the constantly deepened degree of aging, continuously improved ophthalmic awareness of the public, gradually enhanced healthcare concept and payment ability as well as sustained investment in public and private medical resources, the Chinese ophthalmology market, including the cataract market, has huge potentials for future development.

The only effective treatment for cataract is IOL implantation through cataract surgery. As far as the construction of the industrial chain, at present, the Group has initially completed the layout of the entire industrial chain of IOL products. We have opened up the raw material production link of the IOL industrial chain through Contamac Holdings; mastered the R&D and production process of IOL products through its subsidiaries Aaren Scientific Inc., Henan Universe and Eyegood Medical (Zhuhai) Co. Ltd.; meanwhile, strengthened the downstream sales channels of IOL products through the IOL trading business of its subsidiary NIMO. In terms of specific products, leveraging on its domestic and foreign brands, the Group has covered a full range of products from PMMA unfoldable IOL to multifocal foldable IOL, and has been actively engaged in R&D of high-end and new type IOL products.

During the Reporting Period, the Group continued to deepen the integration of industrial chain for ophthalmology cataract treatment business and focused on the resource rationalization and optimization of marketing channels, while leveraging on the support of the National Key R&D Programs under the Plan, creating synergy among the ophthalmology R&D technology platforms of the Group in the PRC, the United States and the United Kingdom to promote collaboration with top domestic research institutes, universities and clinical institutions, accelerate technology introduction and define innovation. In April 2019, the aspheric IOL product of Henan Universe, one of the Group's subsidiary, has been approved by the NMPA, further improving the technical level of domestic IOL brands.

Medical Aesthetics and Wound Care Products

In the field of medical aesthetics and wound care, the Group is the second largest domestic manufacturer of rhEGF for external use and one of the well-known domestic manufacturers of HA Dermal Filler. The Group's rhEGF "Healin", developed and produced by genetic engineering technology, is the only epidermal growth factor product in China that has exactly the same, sequence and spatial structure of amino acids as human natural EGF and the first registered rhEGF product in the world. The Group's first-generation HA dermal filler "Matrifill" is the first mono-phase sodium hyaluronate gel for injection approved by the former State Food and Drug Administration ("CFDA") in the PRC. It mainly features shaping function and is mainly positioned as a popular entry-level hyaluronic acid. The Group's self-developed second generation of HA dermal filler "Janlane" is mainly positioned at the mid-to-high end, and mainly features the dynamic filling function. The Group's third-generation HA Dermal Filler product with new particle-free characteristics has been submitted to NMPA for registration and is currently in the declaring production stage. The Group's HA Dermal Filler product portfolio has been widely recognized in the market and has become a leading brand of domestic HA Dermal Filler products.

During the Reporting Period, the Group's revenue of medical aesthetics and wound care products was approximately RMB299.14 million, representing a decrease of approximately RMB38.24 million, or 11.33%, as compared to 2018. The breakdown of the revenue from medical aesthetics and wound care products by specific products is as follows:

Project	2019		2018		Change (%)
	<i>RMB'000</i>	%	<i>RMB'000</i>	%	
HA Dermal Filler	203,491	12.75	265,173	17.15	-23.26
rhEGF	95,649	6.00	72,202	4.67	32.47
Total	<u>299,140</u>	<u>18.75</u>	<u>337,375</u>	<u>21.82</u>	<u>-11.33</u>

HA Dermal Filler Products

During the Reporting Period, the Group's revenue of HA Dermal Filler products was RMB203.49 million, decreased by approximately RMB61.68 million, representing a decrease of 23.26% as compared to 2018.

In recent years, demand for aesthetics have been growing increasingly, and the speed of upgrade of medical aesthetic products and related technology have been accelerating. These new products and technology can satisfy existing consumer demand as well as attracting more potential consumers through increasingly comprehensive product supply, improving clinical efficacy and change of consumption concept. In the niche market of HA Dermal Filler products, the HA Dermal Filler injection project has become one of the most popular medical aesthetic products among medical beauty institutions and beauty seekers with relatively higher repurchase rate over time for its safety, effectiveness, high price-performance ratio, high repurchase rate and other features.

However, after the initial spurt of growth of the medical aesthetic industry, the competition of terminal medical cosmetology institutions has become increasingly fierce, customer acquisition costs remain high, and profit margins have been declining, resulting in continued pressure on domestic HA Dermal Filler products to reduce prices. At the same time, the rapid development of the industry has also been accompanied by some chaos, and industry supervision is also being strengthened. Since the second half of 2018, various national ministries and commissions have continued to carry out rectification actions to regulate medical aesthetics behavior, which has caused the business of some medical aesthetics institutions to be affected to varying degrees, and the market demand for HA Dermal Filler products has decreased.

Under the multiple influences mentioned above, the Group's HA Dermal Filler products have suffered a decrease in revenue compared to 2018 due to a decrease in sales volume. However, relying on the brand foundation widely recognized by the "Matrifill" and "Janlane" series of HA Dermal Filler products, the Group actively adjusted its sales strategy and maintained a relatively stable and good overall price system with a series of effective professional market service measures. In addition, relying on the previous market foundation and accumulation, revenue of the Group's second-generation HA dermal filler product "Janlane" increased by approximately RMB21.04 million compared with 2018, representing an increase of 56.02%, which partially made up for the unfavorable situation of falling sales of the first-generation "Matrifill" HA Dermal Filler product, and became a new sales growth point.

Although the compliance process of the Chinese medical aesthetics end market has caused market shocks in a certain period of time, in the long run, it will play a positive role in promoting the healthy and long-term development of the industry. At present, China has become the third largest medical aesthetic market in the world. However, compared with other major medical aesthetic medical markets of other countries, China's penetration rate of medical aesthetic projects is still at a low level, and potential for growth in the market is still significant. China's huge population base and strong consumption power will definitely help the medical and aesthetic industry to resume its vitality.

In the current situation, only by constantly innovating and promoting technological innovation and putting forward higher requirements on their product quality control capabilities and marketing methods, can upstream manufacturing enterprises maintain their brand value and vitality, and cope with the new generation of consumers' higher demand for specialized products and prepare for future sustainable growth.

Leveraging on its highly competitive R&D efforts in biomedical materials, manufacturing and marketing platforms and comprehensive strengths in the technology and quality control of sodium hyaluronate products, the Group's self-developed serially HA dermal filler products, based on their characteristics and efficacy, have established the differentiated positioning and supplementary development, thus leading the trend of combined application of HA dermal filler in the non-invasive medical aesthetic market in the PRC. Since the launch of the first generation of HA dermal filler, the Group has established a market reputation for domestically produced HA dermal filler with its professional attitude and actions. The Group established an independent professional marketing team for "Matrifill" and "Janlane". With the integrated mode of direct sales to hospitals and marketing through distributors, the Group achieved penetration into core regions and model hospitals as well as rapid expansion of sales channels and extensive coverage in target markets. Meanwhile, the marketing team of the Group strived to enhance the consumer experience through multi-dimensional services for medical institutions, practitioners and consumers, and build brand attributes and dominate the lifestyle of consumer groups so as to improve the adhesiveness of HA dermal filler.

The Group will continue to leverage on its continuous innovation in R&D as well as stable product quality, clear clinical efficacy and highly efficient market management, to build a leading brand in the medical aesthetic micro-plastic field in the PRC.

In addition, the Group always focuses on the industrial layout in the field of medical aesthetics, aiming to integrate domestic industrial resources and introduce international advanced new technologies and products through various approaches such as R&D, investment, mergers and acquisitions and cooperation.

On 19 November 2019, the Group completed an exclusive Series A investment of US\$14 million in Recros Medica Inc., ("**Recros Medica**"), an USA medical aesthetic equipment company. Recros Medica was founded in 2014 and is headquartered in San Diego, California. Prior to this, Recros Medica had completed a seed round of financing and two venture capital investments. After completing this Series A financing, Recros Medica has raised a total of US\$36 million in financing.

Recros Medica is committed to reducing skin laxity and improving facial contours for patients. Using its proprietary rotational fractional resection technology, Nucrolus® Focal Contouring System developed by Recros Medica can help patients get immediate results with a single treatment. Nearly 100 subjects have been treated in four clinical trials approved by the Institutional Review Boards under the US FDA, and Recros Medica is currently planning a key clinical study. In addition, Recros Medica is also trying to facilitate autologous dermal transfer based on the Nuvelus® platform, which may become a natural alternative to commercial dermal filler.

Through the investment, the Group will support the follow-up research of Recros Medica and the future commercial operation of Nuvelus® Focal Contouring system in the Chinese market.

rhEGF “Healin”

We utilize genetic engineering technology to manufacture innovative biological products that used for wound care. The rhEGF “Healin”, which was independently developed and produced by the Group using genetic engineering, is the only product in China that has the same amino acid structure as the epidermal growth factors in human bodies and the first registered rhEGF product in the world. It was approved as Class I new drug by the former CFDA in 2001 and was awarded the Second Prize of National Science and Technology Progress Award in 2002. The Group’s exclusive patented technology is adopted in the production of “Healin”, which is relatively more active biologically with significant efficacy in the treatment of wound care. The sales volume of “Healin” products in recent years showed a constantly increasing trend with outstanding market performance.

According to the research reports of Biaodian Medical, the Group strengthened its market position as the second largest manufacturer of rhEGF products in China in 2018, whereas the market share of “Healin” products continued to increase to 20.39%.

In February 2017, the Ministry of Human Resources and Social Security of the PRC officially issued the 2017 NRDL, and upon experts’ appraisal, “Healin” was reclassified to Class B medical insurance products by lifting the limitation on the work-related injury insurance products on the 2009 NRDL. Advanced jointly by favorable policies and the Group’s phased solution of insufficient production capacity, the Group’s revenue from the sales of “Healin” products increased rapidly to approximately RMB95.65 million in 2019 during the Reporting Period from approximately RMB72.20 million in 2018, representing an increase of 32.47%.

Orthopedics Products

In the field of orthopedics, the Group is the largest domestic manufacturer of orthopedic intra-articular viscoelastic supplements. According to the research reports of Biaodian Medical, the Group was the largest manufacturer of intra-articular viscosupplement products in China in 2018 for the fifth consecutive year where our market share was 39.67%.

During the Reporting Period, the orthopedics products of the Group recorded revenue of RMB357.93 million, representing an increase of approximately RMB59.00 million, or 19.74%, as compared to that in 2018. The breakdown of the revenue generated from the sales of orthopedics products by specific products is as follows:

Project	2019		2018		Change (%)
	<i>RMB’000</i>	%	<i>RMB’000</i>	%	
Sodium hyaluronate injection	250,766	15.72	210,152	13.59	19.33
Medical chitosan used for intra-articular viscosupplement	107,166	6.71	88,781	5.75	20.71
Total	<u>357,932</u>	<u>22.43</u>	<u>298,933</u>	<u>19.34</u>	<u>19.74</u>

Orthopedic intra-articular viscoelastic supplements are mainly used in degenerative osteoarthritis. Degenerative osteoarthritis is also a common and frequently-occurring disease in the senior population. According to statistics, the incidence of osteoarthritis in men over 65 is 58%, and that in women is 65% -67%; the incidence of people over 75 is as high as 80%. As of 2018, there are 140 million osteoarthritis patients in China. The Group is the only enterprise having sodium hyaluronate injection products with full series of specifications of 2mL, 2.5mL and 3mL in the PRC market. Meanwhile, Medical chitosan intra-articular viscosupplement is an exclusive product of the Group, which is the only intra-articular viscosupplement registered as a Class III medical device in the PRC.

Sodium Hyaluronate Injection

Benefiting from the complete specifications and stable quality of the Group's sodium hyaluronate injection products, we have maintained a good bidding and sales price system in recent years, and have obvious competitive advantages. During the Reporting Period, the sodium hyaluronate injection of the Group recorded revenue of approximately RMB250.77 million, representing an increase of approximately RMB40.61 million, or 19.33 %, as compared to that in 2018.

The orthopedic sodium hyaluronate injection product can mitigate long-term pains, protect and improve function of joints with mild and low incidence of adverse reactions. Moreover, featuring safety, efficacy, practicality and economical efficiency, orthopedic sodium hyaluronate injection can reduce the dosage of oral analgesic so as to bring about fewer adverse reactions caused by drugs. As a significantly efficacious product extensively used in the world, the clinical application of orthopedic sodium hyaluronate injection has been included in the Osteoarthritis Clinical Pathway (2017 version) issued by the National Health and Family Planning Commission, which established the important position of sodium hyaluronate in the treatment of osteoarthritis (“OA”). This was another important revision following the first publication of expert consensus in 2012, providing academic references for the effective and regulated use of orthopedic sodium hyaluronate injection products by the Chinese clinicians in orthopedic and sports medicine areas.

Given that such product still has an extremely low penetration rate in the PRC market, the management of the Company believes that, with the increasing popularity and acceptance among patient groups in the PRC, it has a future sales growth potential that cannot be overlooked. The Group upgraded its products and services to prominently improve injection experience, which laid a foundation for the long-term and stable growth of the Group's orthopedic sodium hyaluronate injection in the future.

Medical Chitosan Used for Intra-articular Viscosupplement

During the Reporting Period, the Group's medical chitosan used for intra-articular viscosupplement products recorded revenue of approximately RMB107.17 million, representing an increase of approximately RMB18.39 million, or 20.71 %, as compared to that in 2018.

Medical chitosan used for intra-articular viscosupplement product is an exclusive product of the Group, which is the only intra-articular viscosupplement registered as a Class III medical device in the PRC. It can be used to treat degenerative OA and is helpful in minimizing joint pains and improving joint mobility. Medical chitosan has effective antimicrobial and hemostatic functions, a longer in vivo retention time and long-lasting therapeutic effect. The Group's medical chitosan used for intra-articular viscosupplement product is characterized by the Group's exclusive water-soluble technology which significantly reduces the rate of allergy and thus fundamentally tackling the safety concerns in relation to the internal use of the product, and was awarded the Second Prize of National Science and Technology Progress Award in 2009.

In 2018, the Joint Surgery Working Committee (關節外科工作委員會) under Chinese Medical Doctor Association and Society of Orthopedics under Chinese Medical Association organized, formulated and released the Expert Consensus on the Application of Medical Chitosan in Joint Cavity Injection (2018 Version) 《(醫用幾丁糖在關節腔注射應用的專家共識(二零一八版))》 (the “**2018 Medical Chitosan Consensus**”) and the Guidelines for the Diagnosis and Treatment of Osteoarthritis (2018 Version) 《(骨關節炎診治指南(二零一八年版))》 (the “**Guidelines**”), respectively. It has been demonstrated in the 2018 Medical Chitosan Consensus and the Guidelines that medical chitosan can relieve joint pain and protect chondrocytes through evidence-based medical proof, and can effectively treat osteoarthritis and delay the progression of the disease, providing academic reference for regulated use of medical chitosan in joint cavity injection.

Currently, medical chitosan used for intra-articular viscosupplement product is in the process of being steadily added into the charges catalogue of various provinces and local health insurance. The management of the Company believes that, with the successive completion of inclusion of the product into charges catalogue of various provinces and cities, and through insisting upon professional promotion, the stable quality and significant efficacy of medical chitosan used for intra-articular viscosupplement product will be recognized by an increasing number of doctors and patients, thus presenting significant development opportunity in the future. If medical chitosan used for intra-articular viscosupplement product could be further successfully included into the charges catalogue and medical insurance of various regions, there would be significant potential for increase of sales revenue.

Anti-adhesion and Hemostasis Products

In the surgical field, the Group is the largest domestic manufacturer of surgical anti-adhesive materials and one of the major manufacturers of medical collagen sponges. Tissue adhesion is the main cause of postoperative complications. The use of polymer biomaterials as spacers to prevent surgical adhesion has gradually become a consensus to improve the safety of surgery. Currently, medical chitosan and medical sodium hyaluronate gel anti-adhesion products independently developed by the Group have been widely used in clinical practice. At the same time, the Group is also committed to the R&D, production and sales of various degradable and rapid hemostatic materials such as medical collagen sponges and fibrin sealants. The degradable and rapid hemostatic materials have also been listed as key industry development field in the “Guide to the Development Planning of the Pharmaceutical Industry (《醫藥工業發展規劃指南》)”.

During the Reporting Period, the Group's anti-adhesion and hemostasis products achieved revenue of approximately RMB188.88 million, decreased by approximately RMB11.07 million compared to 2018, representing a decrease of 5.54%. The breakdown of revenue from the sales of anti-adhesion and hemostasis products by specific products is as follows:

Project	2019		2018		Change (%)
	RMB'000	%	RMB'000	%	
Medical chitosan used for anti-adhesion	93,473	5.86	108,336	7.01	-13.72
Medical sodium hyaluronate gel	73,669	4.62	76,708	4.96	-3.96
Collagen sponge	21,735	1.36	14,905	0.96	45.82
Total	188,877	11.84	199,949	12.93	-5.54

Anti-Adhesion Products

According to the research reports of Biaodian Medical, the Group has been the largest anti-adhesion product manufacturer in the PRC for twelve consecutive years, with a market share of 48.85% in 2018.

From 2015 to date, the gradual publication of certain expert consensus associated with the anti-adhesion products marks the clinical medical concern on anti-adhesion issue. The Chinese Expert Consensus on Prevention of Abdominal Adhesion after Abdominal Surgery, issued in November 2017, points out that anti-adhesion materials can function as a protective barrier to avoid any adhesion, and can prevent adverse reactions related to adhesion to avoid medical risk associated with operation conducted right there, so as to reduce overall medical expenses. The management of the Company believes that, with the promotion of the Expert Consensus, anti-adhesion products will be increasingly valued by both doctors and patients, hence increasing clinical usage radically and further promoting the continuous growth of the sales of anti-adhesion and hemostasis products of the Group.

Due to the impact brought by the sustained controls over fees and quantity carried out by public hospitals across the country starting in the second half of 2017, the use of high-valued materials including anti-adhesion materials in many regions is limited. The Group's whole series of anti-adhesion in hospital use has been affected to some extent. At the same time, as the bidding prices in Beijing, Tianjin, Hebei and other places have fallen, the ex-factory prices of some specifications have also been reduced. In particular, medical chitosan used for anti-adhesion products with relatively high unit prices are severely affected.

Collagen Sponge

Medical collagen has good hemostatic and tissue filling effect, and thus becomes a unique biomedical material used in surgical operations for gynecology and obstetrics, otolaryngology, brain surgery and general surgery. The medical collagen sponge “奇特邦” product of the Group is a refined type I collagen extracted from bovine tendon through the advanced freeze-drying technology. It can accelerate hemostasis and promote wound healing. In the meantime, “奇特邦” in various specifications can be used for hemostasis, and various tissues and organs cavity filling to eliminate the residual cavity, thereby shortening the operation time and accelerating wound and tissue healing process after surgeries.

During the Reporting Period, the Group's collagen sponge products achieved market breakthroughs in Zhejiang, Shandong, Shanghai and other places, with operating revenue of approximately RMB21.74 million, representing an increase of 45.82% as compared to that in 2018.

The management of the Company believes that the Group is able to continue to maintain its leading market share of surgical products by more professional marketing and promotion.

Research and Development (“R&D”)

The Group has always attached great importance to R&D. In order to maintain the Company's technological advantages in the industry, the Group will further increase investment in R&D. During the Reporting Period, the total R&D expenses amounted to approximately RMB116.08 million, representing an increase of 21.71% over RMB95.37 million in 2018, and its proportion in revenue increased from 6.17% in 2018 to 7.28%.

All core products of the Group were primarily developed by its in-house R&D team and the Group maintained a complete R&D project control system for development of new technology and new product and also for transformation of technological achievements. Meanwhile, the Group also focuses on cooperative research and technology development projects with well-known domestic universities, research institutes and sizable “Grade III” hospitals.

The Group has undertaken 8 national-level significant projects from the Ministry of Science and Technology and other national department, and 20 significant technology R&D projects for Shanghai municipality, has been certified as national-level enterprise technology center, owns national postdoctoral R&D workstation, two national R&D platforms, four provincial and ministerial-level technology and R&D transformation platforms, and one Shanghai municipal academician expert workstation, and has established an integrated R&D system in China, the United States and the United Kingdom, initially formed an international R&D layout.

As of the end of the Reporting Period, the Group's in-house R&D team comprised of 263 staff members from China and other countries, representing approximately 19.66% of the total staff of the Group, of which 20 staff were doctorate degree holders and 67 staff were master's degree holders.

In the short to medium term, the Group will continue to focus on the R&D of innovative high-medium-class IOL products, orthokeratology products, artificial vitreous products and products covering ophthalmic treatment areas such as optical, fundus, dry eyes and glaucoma, projects such as innovative tissue filler materials and fibrin sealant, and will also expand specification and research indication of the Group's existing products in the market.

In the long term, the Group will insist on expanding its R&D capabilities. The Group will work with famous Chinese and foreign colleges, universities, research institutes and experts to extend the product development in order to further expand the Group's product offerings to sustained-release preparations, new compound anti-adhesion and hemostasis products on the basis of our own four technology platforms: IOL and optical materials technology platform (which is elected as one of the National Key R&D Programs under the “13th Five-Year Plan”), medical chitosan technology platform (which is elected and supported by the National High-Tech R&D Program (863 Program) and the major project of National Science and Technology under the “12th Five-Year Plan”), medical sodium hyaluronate/sodium hyaluronate technology platform, and rhEGF technology platform.

The management of the Company believes that the Group's proven strong competence in R&D will become one of the long-standing core competitive edges of the Group and serves as a promise of the stable growth and development of our core business in the future.

Sales and Product Marketing

The Group operated a marketing model that combines with distribution and direct sales, and has an extensive and effective sales network in China. During the Reporting Period, the Group's main business revenue divided by sales model was as follows:

Project	2019		2018	
	<i>RMB'000</i>	<i>%</i>	<i>RMB'000</i>	<i>%</i>
Distribution	840,864	52.70%	839,692	54.32%
Direct sales	754,634	47.30%	706,132	45.68%
Total	1,595,498	100.00%	1,545,824	100.00%

As of the end of the Reporting Period, the Group's distribution network comprised over 2,000 distributors. With such distribution network, products of the Group were sold across provinces, municipalities and autonomous regions in China and approximately 65 countries and regions in the world. In addition to the distribution network, the Group has a professional marketing team of 342 people, and has market department, medical department, public affair department, sales department, commercial department and sales support department which are responsible for formulating standardized bidding and government affair management, marketing and sales policies, product trainings, academic promotions, clinical services, selecting and managing distributors, maintaining direct sales to certain core regions and key hospitals to ensure professional promotion and brand building of the Company's products and keeping abreast of any changes to market needs. The Group's broad coverage of hospitals and other medical institutions and its advantages in identifying and managing distributors enabled the Group to effectively promote its products to the target market, laying a solid foundation for continuously enhancing the reputation of the Group's products and brand, expanding the market share and increasing the sales of the products.

DISCUSSION AND ANALYSIS OF FUTURE DEVELOPMENT

Industry Structure and Prospects

At present, the domestic pharmaceutical and medical device industry is undergoing a series of major changes: reform of medical insurance payment methods, centralized tendering and large-scale procurement will continue to deepen from the top down foreseeably. Although the above-mentioned policy factors have brought severe challenges to the operating performance of pharmaceutical and medical device companies, they will also undoubtedly benefit the overall healthy and sustainable development of the industry.

The rigid market demand brought by the aging and urbanization process in China is still driving the industry to grow steadily. As far as the four areas of the Group are concerned, the IOL industry has been listed as a key industry development area by the “13th Five-Year Plan” for Biological Industry Development (《“十三五”生物產業發展規劃》) and the Guidelines for the Development Planning of the Pharmaceutical Industry (《醫藥工業發展規劃指南》), orthopedics and medical aesthetics products are also on the high ceiling quality track. With the rapid growth of diversified medical needs, the gradual improvement of the medical insurance payment system, and the continuous upgrade of the concept of national health consumption, leading pharmaceutical companies with solid product treatment efficacy, good financial status, brand value, and innovative ability are also facing important development opportunity.

Company Development Strategy

The Group always aims to continuously improve the quality of life of Chinese people and promote the rehabilitation of patients, and takes differentiated development as its corporate strategy. The Group will continue to focus on ophthalmic products such as medical absorbable biomaterials and ophthalmic IOL such as ophthalmic intraocular lenses, pharmaceuticals, etc., pay attention to scientific research innovation and achievement transformation, and strengthen professional services; continue to maintain its leading position in technology through cooperation with domestic and foreign well-known R&D institutions, independent R&D and technology introduction; continuously optimize and improve management capabilities and improve operational efficiency; continue to expand and improve product lines and integrate the industrial chain through the combination of endogenous growth and mergers and acquisitions; strengthen the company’s brand building and enhance brand value, making the Group a leading domestic and internationally renowned biomedical company in the field of biomedical materials.

Business Plan

In 2020, the Group will continue to further promote the integration of internal resources of the Group, and further strengthen the integration of merged and acquired enterprises in various functions such as R&D, production, sales and service, enable merged and acquired enterprises to quickly integrate into the Group’s management system with a view to maximizing synergy, improving operational efficiency, developing innovative technologies, and expanding market space, and continue to enhance core competitiveness.

The Group will create synergy among its superior R&D resources in China, the United States, and the United Kingdom, increase investment in R&D of innovative products, continue to promote the optimization and upgrade of product portfolios, expand the clinical application of products, and ensure technological leadership in the four major therapeutic areas of ophthalmology, medical aesthetics, orthopedics, and general surgery.

At the same time, the Group will adopt a series of market measures to deepen the market penetration of advantageous products and expand the coverage of key hospitals and regions with new products through sophisticated multi-dimensional marketing methods. Under the new situation of pharmaceutical marketing, more attention has been paid to compliance management and more in-depth professional services.

In addition, based on the layout of the entire industrial chain of the existing IOL, the Group will effectively use its own funds, deploy the areas of refractive correction and myopia prevention and control, and continue to pay attention to more industrial opportunities in glaucoma, fundus disease, dry eye and other ophthalmic treatment areas. In addition, the Group will also explore the rapidly developing therapeutic fields such as medical aesthetics, orthopedics, surgery, and actively seek suitable target companies and new products, and take the opportunity to adopt acquisition or cooperation to obtain new extensional growth.

Ophthalmology Products

In 2020, the Group will continue to leverage the outstanding track record, resource advantages, and rich experience of the management team in integrating strategic assets. In the field of cataract treatment, the Group will continue to sort out and integrate the resources in products, technologies, and talents, and develop the advantages of domestic and overseas technology platforms, commit to exploring the application of innovative materials and developing a full range of artificial lens products, promote the domestic industrialization of foreign advanced production technologies, improve the production capacity, quality standards, brand positioning, operating efficiency and market competitiveness of domestic enterprises, drive the process of substitution of imported products in the domestic market, and explore huge market potentials with global ophthalmic customers.

In addition, the Group will actively promote clinical trials of new orthokeratology lens product, which will be the Group's knock-out product in the field of myopia prevention and control solutions for adolescents. In the meanwhile, the Group also pay close attention to merger and acquisition opportunities in the fields of myopia prevention and control and refractive correction, accelerating the Group's industrial layout in this field.

Medical aesthetics and wound care products

In 2020, the Group will steadily promote the marketing of HA dermal filler products "Matrifill" and "Janlane", and choose the right time to bring new third-generation HA dermal filler products with no particle characteristics to the market, further enrich the HA dermal filler product line and increase brand influence to expand market share and operating income.

At the same time, organic crosslinked sodium hyaluronate gel, the Group's fourth-generation HA Dermal Filler products, has entered the registration inspection stage. The Group uses natural products as cross-linker and polysaccharides as the main raw materials to prepare aesthetics filling materials suitable for in vivo injection through cross-linking reactions. The safety of organic cross-linked sodium hyaluronate gel will be significantly improved in contrast to those using chemical cross-linker.

In addition, the Group's self-developed enhanced Aquagen Pro has entered the registration inspection stage. This product is the first Aquagen Pro developed in accordance with the requirements of Class III medical device in the world.

Orthopedics Products

The management of the Company has well positioned the orthopedics products orthopedic sodium hyaluronate injection and medical chitosan product used for intra-articular viscosupplement of the Group. Sodium hyaluronate injection, which has a longer cultivation cycle, possesses the advantages of high clinical recognition and relatively broad application. In 2020, the Group will, as guided by the Expert Consensuses of 2012 and 2017, continue to develop marketing and provide academic support for the sufficient and regulated use of sodium hyaluronate injection products by the Chinese clinicians in orthopedic and sports medicine areas. Meanwhile, the Group is able to gain competitive edges in bidding and tendering by its products with whole series of specifications, which is helpful to stabilize the extensive coverage of the Group's sodium hyaluronate injection for intraarticular viscosupplement products market and benefit more patients. On the other hand, the Group's exclusively-owned medical chitosan product used for intra-articular viscosupplement, is the only Class III medical device product with the registration certificate in China. Such product has the significant advantages of minimized injection dosage and long-lasting therapeutic effect, and forms a product portfolio of the Group in the field of intra-articular viscosupplement with sodium hyaluronate injection products. For the portfolio, the Group has designated differentiated clinical applications, differentiated target market and price positioning. In 2020, the Group will actively enhance the marketing promotion and sales of medical chitosan product used for intra-articular viscosupplement and promote the inclusion of the product into the charges catalogue and health insurance of various regions in China to secure the continuous growth in sales of such product and the overall profitability of orthopedics products.

While implementing the above strategies effectively, the Group will also actively explore and develop new products, to achieve the synergic development of the orthopedics products, thereby securing the brand appeal and leading position of the Group in the market of intra-articular viscosupplement products in China.

Anti-Adhesion and Hemostasis Products

In respect of the current market landscape of anti-adhesion products, there are various types of products in the Chinese market and market concentration is relatively high. The top three manufacturers, representing nearly 80% of the market share in aggregate. Recently, more challenges are posed during product renewal and new product registrations as the government continued to raise demands on the quality of such products. Products with outdated technology or unstable quality are facing greater difficulties in survival. In addition, due to the impact brought by the sustained controls over fees and quantity carried out by public hospitals across the country starting in the second half of 2017, the use of high-valued materials including anti-adhesion materials and hemostasis materials in many regions is limited or even disabled. Products with outdated technology or unstable quality are gradually eliminated. The barriers in the field of anti-adhesion and hemostatic materials for new competitors has been raised progressively. Currently, the Group is able to provide a series of anti-adhesion and hemostatic materials products with the most comprehensive and integrated specifications. In 2020, the Group will enhance the market recognition and acceptance of the products among clinical surgery by putting more efforts in professional promotion, with a view to maintaining and increasing its market share.

FINANCIAL REVIEW

Revenue, Cost and Gross Profit Margin

During the Reporting Period, the Group recorded aggregate revenue of approximately RMB1,595.50 million (2018: approximately RMB1,545.82 million), representing an increase of RMB49.68 million or approximately 3.2% as compared to the corresponding period in 2018. During the Reporting Period, the Group's sales revenue of HA Dermal Filler Products somewhat decreased as affected by the periodic industry chaos rectification in the end market of medical aesthetics and the dramatic decrease in the sale price of the competitive products. Due to the sustained rise of sales revenue of products such as sodium hyaluronate injection, intraocular lens and rhEGF for external use, the total revenue of the Group for the Reporting Period still increased, as compared with the corresponding period of last year.

During the Reporting Period, the overall gross profit margin of the Group was 77.2%, representing a decrease as compared to 78.4% in 2018, mainly due to the reduction of percentage of the operating revenue from HA Dermal Filler Products with high gross profit margin.

Selling and Distribution Expenses

During the Reporting Period, the selling and distribution expenses of the Group was approximately RMB544.13 million, representing an increase of approximately RMB49.05 million or approximately 9.9% from approximately RMB495.08 million in 2018. The proportion of selling and distribution expenses to the Group's total revenue was 34.1%, representing a slight increase from 32.0% in 2018. During the Reporting Period, the increase in total amount of the selling and distribution expenses of the Group was mainly attributable to the expansion of its internal sales team and the organization of marketing activities through external professional teams to promote the market recognition of the products, increase sales channel and expand the proportion of business, whereby the respective marketing expenses and costs of sales staff increased.

Administrative Expenses

During the Reporting Period, the administrative expenses of the Group was approximately RMB268.99 million, representing an increase of approximately RMB26.58 million or approximately 11.0% from approximately RMB242.41 million in 2018. During the Reporting Period, the proportion of administrative expenses to the Group's total revenue was 16.9%, representing a slight increase from 15.7% in 2018. The general increase in the administrative expenses of the Group during the Reporting Period was primarily due to the expansion of business scale of the Group, the Group's administrative staff gradually increased, leading to higher wages and welfare expenses, as well as the increase of consulting fees for lawyers, accountants and other intermediary agencies owing to potential acquisitions.

R&D Expenses

During the Reporting Period, the R&D expenses of the Group was approximately RMB116.08 million, representing an increase of approximately RMB20.71 million or approximately 21.7% from approximately RMB95.37 million for the corresponding period in 2018. The growth of R&D expenses was primarily due to the continuous increase of R&D investments of the ophthalmic and medical aesthetic products made by the Group along with more projects in the pipeline and more R&D team members. During the Reporting Period, the proportion of R&D expenses to the Group's total revenue increased from 6.2% in 2018 to 7.3 %.

Other Expenses

During the Reporting Period, the other expenses of the Group were approximately RMB21.76 million, representing an increase of approximately RMB17.56 million or approximately 418.10% as compared to approximately RMB4.20 million in 2018. During the Reporting Period, other expenses mainly included (1) the disposal of 50% equity interest of the joint venture, Contateq, by Contamac Holdings, the subsidiary of the Group in January 2019, resulting in an one-off investment loss of approximately RMB9.53 million; (2) the acquisition of 100% equity interest of a ODC, a French-based manufacturer of IOL injector, on 25 April 2019, by Contamac Holdings, resulting in an one-off investment loss of approximately RMB9.98 million which the Group recognized instead of recognizing the goodwill of the respective acquisition for the period in the principle of prudence after considering the extended period of integration between Contamac Holdings and ODC and uncertainty in profitability of such business.

Income Tax Expense

During the Reporting Period, the income tax expense of the Group was approximately RMB57.97 million (2018: approximately RMB70.11 million), and the effective rate of income tax was 13.3%, which aligned with with 13.3% in 2018.

Results of the Year

During the Reporting Period, the profit attributable to ordinary equity holders of the Company was approximately RMB370.78 million (2018: RMB414.54 million), representing a decrease of approximately 10.6%, which was mainly attributable to the following factors: (1) during the Reporting Period, the Group invested more in the research and development of new ophthalmology products and medical aesthetics products, with research and development expense for the period being increased by RMB20.71 million or 21.7% as compared with the corresponding period of last year; (2) as abovementioned, during the Reporting Period, due to the completion of the disposal of Contateq's equity interest and the acquisition of ODC, the Group recognized one-off disposal loss and investment loss of RMB9.53 million and RMB9.98 million, respectively, resulting in a significant increase in other expenses; (3) during the Reporting Period, some scientific research projects of the Group which were cooperated with the government had not yet reached the acceptance stage, resulting in a decrease in government subsidy income for the period being of approximately RMB18.12 million compared to that in 2018.

During the Reporting Period, the basic earnings per share were RMB2.27 (2018: RMB2.59).

Liquidity and Capital Resources

As at 31 December 2019, the total current assets of the Group were approximately RMB3,945.38 million, representing an increase of approximately RMB1,651.49 million as compared to the amount as at 31 December 2018, which was mainly due to the completion of the Company's initial public offering of shares on the Sci-Tech Innovation Board of SSE during the Reporting Period. The proceeds received resulted in a significant increase in cash, and bank balance. The total current liabilities were approximately RMB359.97 million, being approximately RMB91.35 million lower than that as at 31 December 2018 which was mainly attributable to the settlement of final payment from the acquisition of certain businesses. As at 31 December 2019, the Group's current assets to liabilities ratio was approximately 10.96 (31 December 2018: 5.08), which attributes to the success of the Company's A share offering, resulting in the significant increase of the Group's liquidity.

Employees and Remuneration Policy

The Group had 1,338 employees as at 31 December 2019. The breakdown of our total number of employees by function was as follows:

Production	541
Research and Development	263
Sales and Marketing	342
Finance	42
Administration	150
Total	1,338

The Group's remuneration policy for its employees is based on their working experience, daily performance, operational situation of the Group and external market competition. The Group provided various thematic training programs for its employees regularly, such as training in relation to the knowledge of the product and sales of the Group, the applicable laws and regulations for operations, the requirements of GMP certificate, quality control, workplace safety and corporate culture. During the Reporting Period, the remuneration policy and training programs had no material changes and the total remuneration of the Group's employees amounted to approximately RMB325.69 million. The management of the Company will continue to combine the human resources management and enterprise strategies to recruit professionals according to the changes of the internal and external conditions so as to realize the Group's strategic goal through its strong and reasonable human resources structure.

Treasury Policies

The Group adopts centralized financing and treasury policies designed to strengthen the control on bank deposits and to ensure the secured and efficient use of the Group's capital. Surplus cash of the Group is generally placed in short-term deposits denominated in RMB, US dollar and HKD. It is the Group's policy to enter into principal guaranteed and conservative deposits transactions only and the Group is restricted from investing in high-risk financial products.

Asset Pledge

As at 31 December 2019, the bank borrowings of approximately GBP1.00 million (equivalent to approximately RMB9.14 million) of Contamac Holdings, a subsidiary of the Company, were secured by the pledge of certain of its property, plant and equipment with the carrying amount of approximately GBP1.44 million (equivalent to approximately RMB13.28 million). As at 31 December 2018, the bank borrowings of approximately GBP2.05 million (equivalent to approximately RMB17.76 million) of Contamac Holdings, a subsidiary of the Company, were secured by the pledge of certain of its property, plant and equipment with the carrying amount of approximately GBP1.45 million (equivalent to approximately RMB12.59 million).

Gearing Ratio

As at 31 December 2019, the total liabilities of the Group amounted to approximately RMB498.52 million and the gearing ratio (the percentage of total liabilities to total assets) was 8.1%, representing a significant decrease as compared to 13.5% as at 31 December 2018, which was primarily attributable to the success of the Company's A share offering on the Sci-Tech Innovation Board of SSE during Reporting Period, resulting in the significant increase of the Group's current assets from the proceeds raised.

Cash and Cash Equivalents

As at 31 December 2019, the Group had cash and cash equivalents of approximately RMB944.51 million, representing a significant increase of approximately RMB608.88 million from that of approximately RMB335.63 million as at 31 December 2018. The increase was mainly attributable to net cash flows generated from financing activities and operating activities of approximately RMB1,392.55 million and RMB348.91 million, respectively, which was partially offset by net cash flows used in investing activities of approximately RMB1,135.74 million.

Bank Borrowings

As at 31 December 2019, NIMO and Contamac Holdings, both subsidiaries of the Group, had interest-bearing bank borrowings of approximately RMB5.30 million and GBP1.00 million (equivalent to approximately RMB9.14 million) respectively. As at 31 December 2018, NIMO and Contamac Holdings, both subsidiaries of the Group, had interest-bearing bank borrowings of approximately RMB18.89 million and GBP2.05 million (equivalent to approximately RMB17.76 million) respectively.

Foreign Exchange Risk

The sales, costs and expenses of the Group were principally and mostly denominated in RMB. Despite the fact that the Group might be exposed to foreign exchange risk, the Board expects that exchange rate fluctuation of the foreign currencies held by the Group will not have any material adverse impact on the Group in the future. During the Reporting Period and as at 31 December 2019, the Group did not enter into any hedging transactions.

Contingent Liabilities

As at 31 December 2019, the Group did not have any material contingent liabilities.

Significant Subsequent Event

Please refer to note 16 to the financial statements in this results announcement for the details of significant subsequent event.

Material Acquisitions and Disposals of Subsidiaries and Associates

Save as disclosed in this announcement, the Group did not have any material acquisitions and disposals related to subsidiaries and affiliated companies during the year ended 31 December 2019.

Significant Investment

Save as disclosed in this announcement, the Group has no other significant investment during the year ended 31 December 2019.

Purchase, Sales or Redemption of Listed Securities

Neither the Company nor its subsidiaries have purchased, sold or redeemed any of the Company's listed securities during the Reporting Period.

Final Dividend and Annual General Meeting

The Board proposed to declare the final dividend of RMB0.7 (inclusive of tax) per share for the year ended 31 December 2019, totally amounting to RMB124,491,710. From the date of this announcement to the implementation, in the event that the total share capital of the Company changes, the Company will maintain the dividend distribution per share unchanged, and the aggregate amount will be adjusted based on the total share capital as at the registration date of shareholding.

The above proposal will be put forward for the 2019 annual general meeting of the Company ("AGM") for consideration and approval. The specific arrangements regarding the final dividend and its distribution and the time and arrangement of the closure of register of members of H Shares will be announced separately by the Company. If the distribution of final dividend is approved at the AGM, the Company expects to distribute the dividend within two months after the date of the AGM (expected to be on or before 31 August 2020). The Company shall announce separately the expected dividend payment date.

Corporate Governance Code

The Company has complied with all applicable code provisions under the Corporate Governance Code (the "**Corporate Governance Code**") as set out in Appendix 14 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited ("**Listing Rules**") during the Reporting Period. The Company will continue to review and enhance its corporate governance practices to ensure compliance with the Corporate Governance Code.

Compliance with the Model Code

The Company has adopted the Model Code for Securities Transactions by Directors of Listed Issuers (the “**Model Code**”) set out in Appendix 10 of the Listing Rules as the code of conduct regarding securities transactions by the directors and supervisors of the Company. Having made specific enquires to all directors and supervisors of the Company, all of them confirmed that they have complied with the required standard set out in the Model Code during the Reporting Period.

Audit Committee

The Company has established an audit committee (the “**Audit Committee**”) and the audit committee comprises five directors, namely Mr. Shen Hongbo, Ms. You Jie, Mr. Chen Huabin, Mr. Wong Kwan Kit and Mr. Zhu Qin and is chaired by Mr. Shen Hongbo. The primary duties of the Audit Committee are to review and supervise the Company’s financial reporting procedures, risk management and internal control system. The Group’s audited consolidated financial statements and annual results for the Reporting Period have been reviewed by the Audit Committee.

Publication of the Annual Results and Annual Report

This results announcement will be published on the HKExnews website (www.hkexnews.hk) and the Company’s website (www.3healthcare.com).

The Company’s 2019 Annual Report containing all information required under the Listing Rules will be dispatched to the shareholders of the Company and will be published on the HKExnews website (www.hkexnews.hk) and the Company’s website (www.3healthcare.com) in due course.

By order of the Board
Shanghai Haohai Biological Technology Co., Ltd.*
Hou Yongtai
Chairman

Shanghai, the PRC, 26 March 2020

As at the date of this announcement, the executive directors of the Company are Dr. Hou Yongtai, Mr. Wu Jianying, Ms. Chen Yiyi and Mr. Tang Minjie; the non-executive directors of the Company are Ms. You Jie and Mr. Huang Ming; and the independent non-executive directors of the Company are Mr. Chen Huabin, Mr. Shen Hongbo, Mr. Zhu Qin and Mr. Wong Kwan Kit.

* For identification purpose only