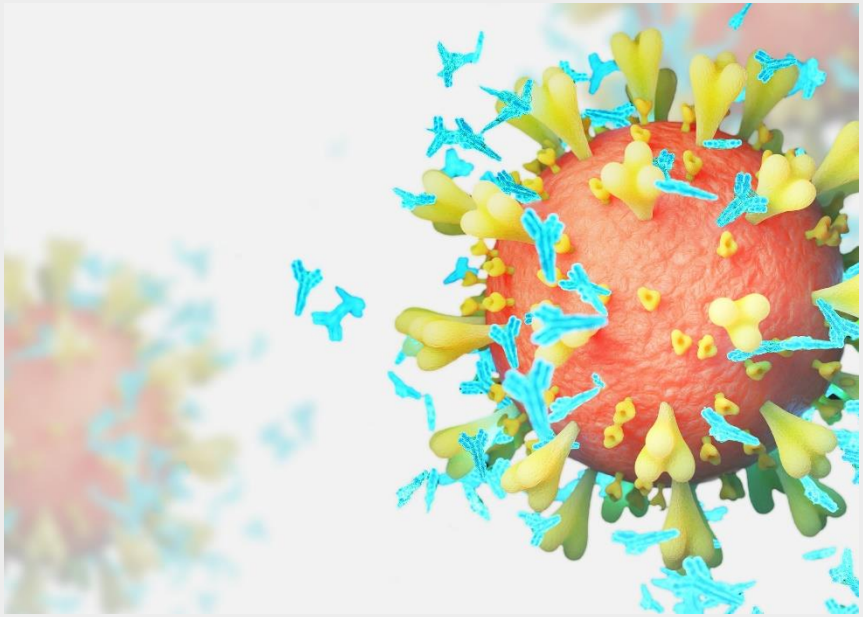
ixbiopharma
it's life changing

EMPOWERING
THE DELIVERY
OF BIOLOGICS



Sustainability Report 2023

15 September 2023

About this Report

GRI 2-1|2-3

iX Biopharma Ltd. (the **Company** or **iX Biopharma**) is proud to present our annual Sustainability Report for the Financial Year 2023 (**FY2023**). This Report discloses the sustainability indicators that we have identified as material, as well as our performance against these indicators in FY2023.

We have prepared the report with reference to the Global Reporting Initiative Standards (**GRI Standards**), the first global standards for sustainability reporting; guidance from Practice Note 7F of the Singapore Exchange Securities Trading Limited (**SGX-ST**), including the set of Core ESG Metrics published by SGX-ST in December 2021 (where we have considered these metrics to be material to our operations); and the recommended disclosures of the Task Force on Climate-Related Financial Disclosures (**TCFD**). The GRI Content Index and TCFD Index on pages 14 to 16 set out the full list of GRI and TCFD references and disclosures used in this Report.

The Report captures our environmental, social and governance performance from July 2022 to June 2023 (**FY2023**) with historical performance data (**FY2022**) included for comparison, for all our entities.

We are fully committed to sharing our sustainability journey with all our stakeholders. Please address any feedback you might have on our sustainability performance and any aspect of our sustainability report to:

Chew Sien Lup
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Contents

Sponsor Statement

This Sustainability Report has been prepared by the company and its contents have been reviewed by the Company's sponsor, UOB Kay Hian Private Limited (the **Sponsor**), for compliance with the relevant rules of the Singapore Exchange Securities Trading Limited (**SGX-ST**) Listing Manual Section B: Rules of Catalist. This Sustainability Report has not been examined or approved by the SGX-ST and the SGX-ST assumes no responsibility for the contents of this Sustainability Report, including the accuracy, completeness or correctness of any of the information, statements or opinions made or reports contained in this Sustainability Report. The contact person for the Sponsor is Mr. Lance Tan, Senior Vice President, at 8 Anthony Road, #01-01, Singapore 229957, telephone: (65) 6590 6881.

Sustainability Board Statement

GRI 2-22

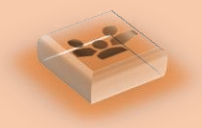
iX Biopharma is pleased to publish this FY2023 Sustainability Report together with our Annual Report for FY2023. It was prepared with reference to the GRI Standards, the Sustainability Reporting Guide set out in Practice Note 7F of the SGX-ST, and the recommended disclosures of the TCFD, and captures our initiatives to integrate sustainability across our organisation in the areas of environment, social and governance (**ESG**).

Sustainability is integral for our business to achieve lasting commercial success. We have embarked on this sustainability journey by looking at our responsibility for the environment we are operating in, people in our workforce and innovative products for the healthcare industry.

In this endeavour, the Company's Board of Directors (the **Board)** provides guidance on the social, ethical and environmental impact of the Group's activities and oversees the monitoring and management of material sustainability issues and their performance indicators. We consider sustainability issues relating to the environment and social factors as part of the Group's strategic plans. The Management under the guidance of the Board is committed to integrating best sustainability practices into the Group's working environment and business operation.

Environment

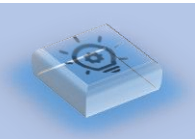
We are fully committed to our environmental initiatives along our entire value chain, from product development to supply of goods. We have identified energy as one of the material topics and will continue to identify other areas of improvement where we can mitigate our environmental impact.



People

We value our employees as the key pillar for our long-term success. As an equal opportunity employer, we aspire to be the workplace of choice for our staff. We strongly believe in diversity and being inclusive with regard to hiring policies. We employ the best talent, without discrimination on race, gender or age.

We also value the importance of competency and proficiency in our workforce to ensure the long-term success of our business. During FY2023, we continued to invest in the training and development of our employees to enhance their skills and capabilities.

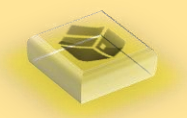


Innovation

Innovation is the cornerstone of the Group and continues to be an important driver of future growth.

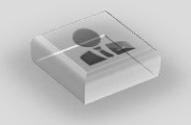
We are proud to report that 19 products have been registered or listed on the Australian Register of Therapeutic Goods (**ARTG**) as at end of FY2023.

We have developed an extensive pharmaceutical product pipeline utilising our patented WaferiX sublingual delivery technology.



Product

As a pharmaceutical company, we comply with all relevant and material regulations and applicable industrial standards. All our products are continuously assessed for health and safety impacts across our value chain. We have incorporated procedures throughout the manufacturing process from raw materials sourcing to rigorous product testing. We have also invested in the implementation of a pharmacovigilance monitoring system to handle feedback and recall events.



Governance

Corporate governance is at the centre of our business in achieving our sustainability goals. We uphold the belief that good corporate governance practices are essential in building a sound corporation with an ethical environment, thereby protecting the interests of all stakeholders. We strive to put in place a robust governance framework to maintain integrity, transparency, accountability and discipline in all our practices.

About iX Biopharma

GRI 2-6|2-7

iX Biopharma Ltd (iX Biopharma or the Company, and together with its subsidiaries, the Group) is a specialty pharmaceutical and nutraceutical company with expertise in advanced drug delivery systems. We have developed two ground-breaking multi-drug delivery platform technologies: WaferiX and WaferlogiX. These highly porous, amorphous, non-ionic solid dose formulations revolutionise drug delivery, offering unparalleled advantages for both small molecule drugs and biologics.

WaferiX represents a breakthrough in the administration of small molecules. It is optimised for sublingual administration, which allows drugs to bypass the GI tract and avoid first pass liver metabolism, enabling better absorption of the drug, faster onset of action and predictable effect.

WaferlogiX, iX Biopharma's revolutionary drug delivery technology for the delivery of biologics, represents a paradigm shift in the administration of complex molecules. Biologics, with their delicate molecular structure and susceptibility to degradation, have long presented hurdles in delivery and are traditionally limited to injection based delivery. We now have the potential to use WaferlogiX to deliver biologics sublingually, enhancing patient convenience and compliance. Delivery with WaferlogiX may potentially offer significant advantages such as reduced systemic side effects and improved therapeutic outcomes.

At iX Biopharma, we focus on drug repurposing to develop novel therapies. Drug repurposing is where existing approved drugs are repositioned for new indications and/or into novel dosage forms. We leverage on the US FDA 505(b)2 regulatory pathway, which expedites the development process and makes it possible for us to bring our medicines to the market at lower cost and shorter time.

Our fully integrated business model sets us apart in the industry. By managing the entire value chain internally, from research and development to manufacturing and commercialisation, we achieve unparalleled cost efficiencies, superior quality control, and accelerated speed to market. Furthermore, this integrated approach ensures robust intellectual property protection, safeguarding the unique value of our technologies and products. Nonetheless, we believe that collaboration is key to driving innovation and achieving sustainable growth and as such we may collaborate with third parties with complementary capabilities to develop and commercialise our products. By leveraging our partners' commercialisation expertise, market access, and distribution networks, we can maintain a lean and agile business model.

iX Biopharma operates across two business segments: Pharmaceuticals and Nutraceuticals. In the Pharmaceuticals segment, we focus on advancing our proprietary drug delivery technologies and repurposing existing drugs for new therapeutic applications. In the Nutraceuticals segment, iX Biopharma draws on our expertise in pharmaceuticals and nutraceuticals to develop and market a diverse range of products that promote healthspan, wellness, and vitality.

Our manufacturing facility in Australia is licensed by the Therapeutic Goods Administration of Australia, complies with Good Manufacturing Practice, and supplies therapeutic products to hospitals and registered pharmacies.

iX Biopharma: Fast Facts
(as at 30 June 2023)

Indicator	Total	Breakdown			
Employees by region	68	Category	Australia	Singapore	China
		Permanent	36	18	1
		Temporary	13	-	-
Full Employees by gender		Male		Female	
		39		29	
Total number of operations	**4** (corporate, R&D, sales, manufacturing)				
Net revenue	**$5.91 million**				
Total capitalisation	Total Equity		Total liabilities		
	$15.85 million		**$9.08 million**		

Figure 1 iX Syrinx, Croydon, Australia

Sustainability at iX Biopharma

GRI 2-22|2-23

Sustainability is integral to iX Biopharma's business to achieve the lasting commercial success of iX Biopharma. We have embarked on the sustainability journey by looking at our responsibility for the environment we are operating in, people in our workforce and innovative products for the healthcare industry. At iX Biopharma, we understand the importance of reducing our environmental impact and are committed to conducting business in a responsible manner by supporting the Precautionary Principle. This means that where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent or mitigate these threats.

Sustainability Governance

GRI 2-9|2-12|2-13|2-14

Corporate governance is at the heart of our efforts in achieving our sustainability goals. We uphold the belief that good corporate governance practices are essential in building a sound corporation with an ethical environment, thereby protecting the interests of all stakeholders. We strive to put in place a robust governance framework to maintain the integrity, transparency, accountability and discipline in all our practices.

The Group operates under the following governance:

- **The Board** provides guidance on the social, ethical and environmental impact of the Group's activities and oversees the monitoring and management of material sustainability issues and their performance indicators.
- **Risk Management Committee ("RMC")** is a board appointed committee comprising selected members of the Board who assist the Board in its oversight of risk management of the Group. It is responsible for designing and implementing the Group's Enterprise Risk Management ("ERM") Framework and reviewing its effectiveness on an ongoing basis.
- **The Management** (comprising the Chief Executive Officer, Chief Operating Officer and his team of C-Suite officers) evaluates and reviews long-term business and organisational goals.

  The Management identifies, prioritises, assesses, manages and monitors key risks and associated key controls in the Group's business. Any identified climate related risks will be reported to RMC and managed as per ERM Framework.

  The Management also works with the Board to set sustainability-related goals; translate sustainability-related goals into action, which includes providing resourcing and implementation guidance; and track progress against the agreed targets.

Figure 2 Lyophilizer

Supply chain

GRI 2-6

As we are accountable to our stakeholders, we endeavour to ensure that appropriate risk management, key internal controls and procedures are in place during the procurement of goods and services.

As at end of FY2023, we have a pool of approximately 300 active suppliers, including contractors, clinical research organisations, professional consultants, and financial institutions which are mainly based in Singapore, Australia, China and USA.

We have adopted a 2- and 4-year qualification and review cycles for our suppliers of active ingredients and packaging materials. In the future, we aim to embed sustainability measures into our value chain and integrate environmental factors wherever possible and appropriate.

Stakeholder Engagement

GRI 2-25|2-29|3-1

At iX Biopharma, we firmly believe in regularly engaging our stakeholders to understand the issues most important to them and our business impact. We have identified our key stakeholders based on importance, representation, dependency and proximity to our business. We are committed to integrating our stakeholders' concerns in our business strategies and policies. Therefore, we continuously seek to explore effective communication channels and strengthen our relationships with them.

Stakeholder		Key Topics	Mode of Engagement
	**Shareholders and investment community**	Economic performance Governance and compliance Innovation	Annual general meeting Corporate press releases and announcements Corporate website Annual report Analyst outreach
	**Suppliers and vendors**	Product safety and quality	Supplier pre-qualification program Cyclical audit program
	**Customers**	Product safety and quality	Regular customer communications through email, calls and visits Online and in-person trainings for pharmacies and medical practitioners Scientific publications Customer audit (on-site / desktop)
	**Regulators**	Compliance of law and regulations	Regulatory inspections Periodic audits
	**Employees**	Training and development Health and safety Workplace ownership Diversity and equal opportunity	Annual performance reviews Access to training opportunities
	**Community**	Environmental compliance Energy use and emissions	Annual report on sustainability

Material ESG Factors and Targets

GRI 2-25|3-1|3-2

iX Biopharma has undertaken a detailed process to identify, prioritise and validate the environmental, social, governance and economic issues that matter most to our organisation. Our 2022 Sustainability Board Statement and peer research have also been referenced in this assessment.

We conducted a materiality assessment workshop with our internal stakeholders. Where practicable, we would engage external stakeholders (as set out on the previous page) during materiality assessment.

This was subsequently assessed for relevancy to both our stakeholders and the environmental, social and governance impact of our business operations. The following table sets out the material ESG Factors and targets for the coming year:

Material Factor				Aspect Boundary	FY2023		FY2024
Material Aspect		List of Indicators			Target	Performance	Target
Economic	Economic Performance	201-1 201-4	Details of our financial performance and targets can be found in the Financial Review and Financial Statements section of our Annual Report				
Environment	Energy	302-1	Energy consumption within the organisation	Within organisation	Less than or equal to 0.44 kWh per dollar of sales	**0.19 kWh per dollar of sales**	Maintain or lower our electrical energy per dollar of sales
Social	Customer Health & Safety	416-1	Assessment of the health and safety impacts of product and service categories	Within and outside organisation	All products tested	**All products tested**	All products tested
		416-2	Incidents of non-compliance concerning the health and safety impacts of products and services		Zero case of non-compliance	**Zero case of non-compliance**	Zero case of non-compliance
	Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	Within organisation	1 female director	**1 female director**	20% female representation on the Board (i.e. 1 female director)
	Training and Education	404-1	Average hours of training per year per employee	Within organisation	40 hours	**49 hours**	40 hours
	Occupational Health and Safety	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Within organisation	Zero incident of workplace fatality or serious injury	**Zero incident of workplace fatality or serious injury**	Zero incident of workplace fatality or serious injury
Innovation	Innovation	Annual research and development investment		Within organisation	No target set	**S$ 2.8 million**	No target set
		Number of new products launched			3 products	**2 new products launched**	3 products
		Number of products under development			6 products	**10 products**	7 products

Economic

Financial performance

GRI 3-3|201-1|201-4

Why is this a material issue?

Revenue (without licensing) increased in FY2023 by 193% when compared with FY2022, on the back of higher contribution from our Specialty Pharmaceuticals business.

Our approach to managing

Key economic events and achievements in FY2023 were reviewed by the Chairman & CEO in his statement included in our Annual Report 2023 from pages 4 to 8. Detailed discussions on our operations, business strategy and financial performance can be found on pages 11 to 21 of our Annual Report 2023.

	Direct Economic Value Generated and Distributed[1] ($'000)	
	FY2023	FY2022
Total revenue, of which	**5,913**	**14,390**
Pharmaceutical	5,162	1,401
Nutraceutical	751	617
Licensing	-	12,372
Government Grants	**1,133**	**739**
Research and development tax incentives	1,098	699
Other grants	35	40
Others	**7**	**33**
Direct economic value generated	**7,053**	**15,162**
Total operating costs, of which	**8,185**	**6,947**
Net expenses	7,256	5,887
Depreciation and amortisation	929	1,060
Employee wages and benefits[2]	**6,415**	**5,561**
Interest expenses	**271**	**202**
Direct economic value distributed	**14,871**	**12,710**

[1] *The value distribution calculation and commentary in this section is based on the income and expenses reported in the Group's Consolidated Statement of Comprehensive Income.*

[2] *Excluding share-based compensation*

Environment

Energy

GRI 3-3|302-1|302-3|305-2

Why is this a material issue?

We are aware of our responsibility towards the environment. Our choice of efficient and clean sources of energy has the potential to minimise the impact of our operations to the environment. As climate change continues to be one of the most pressing global issues, it is our duty as responsible corporate citizens to do what we can towards the global agenda of protecting our planet. Uninterrupted and reliable electricity supply is critical to our wafer freeze-drying process. As we transition from a R&D centric organisation to a business that includes manufacturing and supply, we expect our environmental footprint to increase accordingly.

Our approach to managing

In our daily operations, electricity, which is used to power our office buildings, manufacturing plant and laboratory, contributes to most of our energy consumption. We use fuel for our backup generators; however, the consumption is negligible.

In this report, we have started presenting carbon footprint of our operation. As fossil fuel consumption in our operation was negligible, only greenhouse gas emission (GHGE) (Scope 2) associated with the electricity consumption by our Croydon plant and Singapore office are included in this report. Our Scope 2 GHGE in Australia is estimated by applying the latest National Greenhouse Account Factors published by Australia's Department of Industry, Science, Energy and Resources and designed for use by companies and individuals to estimate greenhouse gas emissions. For our Singapore operation, Scope 2 GHGE is estimated by applying the Operating Margin Grid Emission Factor published in latest Singapore Electricity Statistic by the Energy Market Authority of Singapore.

As we continued to increase our activities in FY2023, our energy consumption and GHGE have similarly increased. However, with increased utilisation of our production plant, we saw a decrease in the marginal energy consumption per dollar sales.

This notwithstanding, as we step up our commercial manufacturing activities, our electricity consumption is expected to increase correspondingly. Mindful of this anticipated increase in consumption, we have considered and are still evaluating the feasibility of an on-site solar power generation to supplement our electricity supply from the grid at our Australia plant.

	Energy Consumption (kWh)	
	FY2023	FY2022
	1,095,311	890,834
	Energy Consumption (kWh) / $1 of Sales[1]	
	0.19	0.44
	Scope 2 GHGE (t $CO2_{-e}$)	
	937	714
	Scope 2 GHGE (t $CO2_{-e}$)/ $1K of Sales[1]	
	0.16	0.35

[1] *Sales exclude licensing fees.*

Social

Customer Health and Safety

GRI 3-3|416-1|416-2

Why is this a material issue?

Our aim at iX Biopharma is to develop products of the highest safety and quality standards. One of our top priorities is the safety and wellbeing of our customers. To ensure the quality and safety of our products, we have integrated quality standards, procedures and monitoring systems across our operations. All our products are continuously assessed for health and safety impacts across our value chain.

Figure 4 Analytical testing laboratory, Croydon, Australia

Our approach to managing

As a pharmaceutical company, we comply with all relevant and material regulations and applicable industrial standards. We have incorporated procedures throughout the manufacturing process from raw materials sourcing to rigorous product testing.

We have a dedicated Quality Assurance team to ensure that all materials used meet the necessary specification for all products, and each product undergoes an annual product quality review. Some products undergo clinical trials, where the safety and efficacy aspects are assessed. We have also invested in the implementation of a pharmacovigilance monitoring system to handle feedbacks and recall events. We have in place an adverse events management programme.

We adhere strictly to government regulations such as Therapeutic Goods Regulations 1990 of Australia, PIC/S Guide to Good Manufacturing Practice for Medicinal Products, and Therapeutics Advertising Code. This is made possible by having a robust Quality System that is focused on on-going monitoring. Our Quality Assurance team constantly reviews our procedures, processes and quality of our products to ensure quality and compliance.

To-date, two of our pharmaceutical products for erectile dysfunction are registered with the TGA, and one of which are also approved by Health Sciences Authority of Singapore for marketing in Singapore. In addition, all our nutraceutical products are listed on ARTG.

Our medical science liaison team actively engages healthcare professionals including doctors, nurses and pharmacists through a comprehensive training programme in Australia. This programme aims to enhance their understanding of our medicinal cannabis products by communicating their competitive advantages, uses, benefits, and other scientific and clinical knowledge. Through interaction, we gain insights that help us to understand and address the needs of the market.

As part of product development, we conduct clinical studies on our products so that we can evaluate their pharmacokinetic properties, safety and efficacy. During the year, we have undertaken or participated in the following trials and studies:

- DEX-001, a Phase 1 pharmacokinetic clinical study. The study assessed the absolute bioavailability of sublingual dexmedetomidine wafers across three different wafer dosage strengths against the intravenous administration of dexmedetomidine, Precedex®.
- SEISMIC-CBD conducted by University of Sydney, Australia – on-going – is a world-first study testing cannabidiol (CBD) in people with kidney failure. Our Xativa wafers were selected to be included as the sole investigational product of this study.

During the year, two corporate customers conducted on-site audits at our manufacturing facilities as part of their GMP compliance review.

FY2023 and FY2022	
	No case of non-compliance with regulations and/or voluntary codes concerning the health and safety impacts of products
	All products (pharmaceuticals and nutraceuticals) are **tested** prior to release and assessed for improvements

As part of our commitment to our customer health and safety, we strive to maintain:

- zero cases of non-compliance with regulations and/or voluntary codes concerning the health and safety impacts of products
- full testing and assessment of products prior to release

Figure 5 Product Testing

Social

Training and Workplace Diversity

GRI 3-3|404-1|405-1

Why is this a material issue?

We value our employees as the key pillar for our long-term success. As an equal opportunity employer, we aspire to be the workplace of choice for our staff. We strongly believe in being inclusive with regard to hiring policies.

We recognise that our employees are instrumental in the success and growth of our Group, and we are dependent on the quality and skill of our employees to resolve issues raised by our customers.

Our approach to managing

We employ the best talent, without discrimination on the basis of race, gender or age. We have policies and practices in place to ensure fair hiring and equal opportunity.

Diversity is an integral part of engaging with the communities we work in.

The Board has, at the recommendation of the Nominating Committee (**NC**), adopted a formal board diversity policy (**Board Diversity Policy**) to ensure diversity on the Board in respect of skills, experience, knowledge, gender, age, ethnicity and other factors which will be considered by the NC when identifying and recommending candidates for Board appointments. The Board will select directors based on merit, with due consideration of the measurable objectives set by the Board for promoting and achieving diversity pursuant to the Board Diversity Policy. The Company's first diversity target, which is to have 20% female representation on the Board (i.e. 1 female representation) on the Board by FY2024, has been met by the composition of the current Board. The NC and Board will review and monitor progress towards its set measurable targets continually and review the Board Diversity Policy at least once every 5 years.

In addition, merit and competency of employees are also key factors for the success of our business. We have in place multiple training manuals and systems for all our employees.

The training systems ensure that all personnel are trained and deemed competent as required by their position description, assigned roles and responsibilities, and where a training gap exists, a plan is in place to close the gap.

Average Training Hours Per Employee	
FY2023	**FY2022**
49.1	56.4

Note: Please refer to page 13, Performance Metrics, for the detailed breakdown of Diversity and Training diversity performance.

Due to the tight labour market, we introduced casual rated personnel into our workforce for the very first time. This allows us to tap into a valuable resource pool that appreciates flexible working hours. These individuals come from diverse backgrounds and possess a wide range of skills. We have tailored a training programme to ensure that these new recruits are competent, well-prepared and proficient in our safety procedures. This initiative provides fresh employment opportunities for the local community, supporting the area's economic development, and establishes a pool of proficient workers to address our immediate and future labour needs and support our growing production activities.

Safety, Health and Environment

GRI 103-1|103-2|103-3|403-2

Why is this a material issue?

Our employees are our most valuable asset. Therefore, our success depends upon ensuring a safe and conducive work environment for them. Our goal is to improve the work environment for our people by reducing risks, preventing occupational hazards and fostering their physical and psychological well-being.

At our manufacturing facility, we work with certain active ingredients which may be highly potent. In case of lack of understanding and awareness, improper management of these substances in large volumes can be dangerous for our workers and their surroundings. We recognise that we have a responsibility to provide a safe and healthy work environment for all our employees.

Figure 6 Manufacturing personnel

Our approach to managing

To ensure the safety of our employees, we have put in place standard operating procedures. The Group operates a site-based approach to Safety, Health and Environment (**SHE**) to ensure that offices and facility operate to national recognised standards. These include complying with government regulations and commitments to continuous improvements to health & safety of our workforce at a minimum impact to the environment.

FY 2023 & 2022 Performance
Zero case of work-related **fatalities**
Zero case of work-related **serious injury**†

Note: Please refer page 13, Performance Metrics, for the detailed breakdown of Safety, Health and Environment performance.

† Serious injury is an injury that has a major impact or effect on the health of the employee, including 1) loss of consciousness – directly related to injury, 2) amputation, 3) fracture – other than hairline fracture or any bone or non-displaced fracture of a digit, 4) in-patient hospitalisation for observation that is for three or more days, 5) surgical intervention, and / or 6) continuous impairment

A site SHE committee, comprising personnel at our Croydon site, oversees the implementation of policies and work practices, and reviews all reportable incidents and actions being taken. They are responsible for reviewing all reported incidents, assessing the root cause, addressing safety gaps and ensuring that corrective as well as preventive measures are taken. The results of the incidents are reviewed during monthly management meeting and at the site with the SHE committee quarterly.

During the year, no reportable incident was recorded.

Innovation

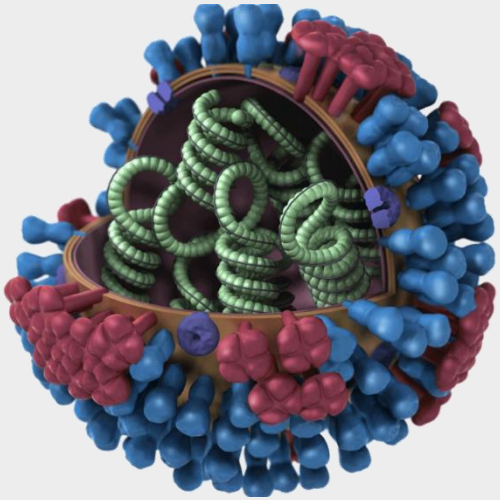


Figure 7 3D graphical representation of the biology and structure of a generic influenza virus

Why is this a material issue?

Innovation is the cornerstone of the Group and continues to be an important driver of future growth. WaferiX is a unique and versatile drug delivery platform that allows pharmacologically active compounds to disintegrate quickly under the tongue, reducing the effect of first-pass metabolism, and resulting in higher bioavailability, as compared to conventional methods of administration.

At the date of this report, we hold patents for WaferiX in 5 continents and all key markets including the United States, China, Australia, New Zealand, Singapore, Japan, South Korea, India, Malaysia, and Indonesia, countries in the European Union and others.

We have strong R&D capability and collective experience in drug formulation, clinical pharmacology and drug delivery & safety. Our R&D activities are vital to our efforts to maintain our competitiveness in the industry as well as to further develop better and improved products.

Our approach to managing

We seek to identify areas of unmet or under-served therapeutic need and focus our research and development efforts on formulations of pharmaceuticals aimed at addressing such needs. Key to our approach is our drug repurposing strategy. We use WaferiX to repurpose and enhance various drugs, and where appropriate, register these drugs via the United States Food and Drug Administration (**US FDA**) 505(b)(2) pathway.

Drug repurposing is where we use existing approved drugs to treat new therapeutic indications or develop into a new dosage form. By changing the dosage form and route of administration of an existing drug, we can increase the convenience of use, improve its therapeutic effect and side effect profile, expanding the drug's effectiveness and suitability for use in a new therapeutic area.

Sublingual dexmedetomidine is an example of an existing drug which is approved for sedation which we are now repurposing to treat agitation in dementia patients.

WaferlogiX

During the year, we successfully reformulated the WaferiX technology to enable non-invasive delivery of biologics to the oral mucosa.

As biologics are highly susceptible to degradation in the GI tract, they are presently only delivered by intravenous, intramuscular and subcutaneous injections. Unfortunately, the disadvantages associated with injections greatly limit the extent of clinical applications for such drugs: they are invasive, require a clinic or hospital setting, and are costly to administer.

Figure 7 R&D blister filling

		FY2023	FY2022
	Annual research and development investment	S$2,820,000	S$2,332,000
	Patents		
	• Granted	62	60
	• Allowed	1	2
	• Pending	13	8
	Products under development	10	9
	Number of new products launched		
	• Pharmaceuticals	2	1
	• Nutraceuticals	-	1

The WaferlogiX technology protects biologics from enzymatic degradation, incorporates muco-adhesives to optimise the release kinetics of the biologic and maximise interaction with the oral mucosa. Additionally, permeation enhancers have been integrated to improve absorption of biologics across the epithelial membrane of the mucosa.

With WaferlogiX, we have overcome the clinical utility limitations of biologic drugs. This adds to the diversity of our pipeline of drugs that address significant unmet medical needs and holds immense potential for improving patient outcomes.

Selected Products

Pharmaceuticals

- ***Wafermine***

  What it is: Sublingual ketamine wafer for the treatment of pain and psychiatric conditions, including depression

  Active compound: racemic ketamine

  Clinical development status: The Group out-licensed Wafermine to Seelos Therapeutics, Inc in November 2021. Seelos will now further the development of Wafermine for Complex Regional Pain Syndrome (CRPS), amongst others. The Group also obtained orphan designation for the use of ketamine to treat Complex Regional Pain Syndrome (CRPS) from US FDA in May 2021.

  Our licensee partner, Seelos Therapeutics, Inc. is expected to commence a Phase 2 clinical study in patients with CRPS in 2Q/3Q FY2024.

- ***Sublingual Dexmedetomidine Wafer***

  What it is: Sublingual dexmedetomidine wafer, intended to treat agitation in patients with dementia, amongst other conditions.

  Active compound: dexmedetomidine

  Clinical development status: Completed DEX-001, a Phase 1 pharmacokinetic clinical study assessing the absolute bioavailability of sublingual dexmedetomidine wafers across three different wafer dosage strengths against the intravenous administration of dexmedetomidine, Precedex®. The results shown high bioavailability, fast absorption, and fast onset of action with dose proportionality across the dosing range. The dexmedetomidine wafers were safe and well tolerated, with no serious adverse events observed.

  We plan to file an IND application with the US FDA for a Phase 2 study in patients with dementia-related agitation.

- ***Sublingual Dronabinol Wafer***

  What it is: Sublingual dronabinol, synthetic THC, will be developed for the currently approved indications of chemotherapy induced nausea, vomiting and anorexia associated with weight loss in patients with HIV/AIDS. Current marketed formulations of dronabinol require ingestion as either a capsule or liquid. A sublingual delivery has the advantage of not having to be swallowed, which is particularly useful in patients with severe nausea.

  Active compound: dronabinol

  Clinical development status: We have completed formulation and the product is ready for evaluation in a human pharmacokinetic study.

- ***iXB-321 Sublingual Vaccine Wafer***

  What it is: First vaccine wafer in development utilising our new WaferlogiX biologics platform delivery technology. It incorporates an existing influenza vaccine into our novel wafer for sublingual delivery. The aim is to not only provide protective immunity against the virus but also reduce viral spread between persons.

  Active biologic: Influenza vaccine

  Clinical development status: iXB-321, in an in-vitro laboratory testing by single radial immunodiffusion testing, has demonstrated that it retains full antigen potency. The product is now ready to undergo animal efficacy testing to evaluate the vaccine wafer's ability to generate an immune response in vivo.

- ***iXB-322 Sublingual Interferon Wafer***

  What it is: A novel low-dose (<1000 IU) interferon sublingual wafer, iXB-322, for the prevention and treatment of respiratory viral illnesses, including COVID-19, influenza and RSV.

  Interferons are human proteins that serve as primary responders to coordinate the immune system against invading viruses and tumours. To date, these biologics have only been administered via injection at high doses (3-50 million IU) for the treatment of certain viruses, such as hepatitis, and for certain cancers, such as melanoma and lymphoma, leading to a number of unwanted side effects and limited utility.

  Active biologic: Interferon

  Clinical development status: We have completed formulation and the product is ready for evaluation in a human pharmacokinetic study.

Medicinal Cannabis

- ***Xativa, a sublingual cannabidiol (CBD) wafer***
- ***Hypera, a sublingual tetrahydrocannabinol (THC) wafer***

Active compound: CBD and THC are the two prominent cannabinoids found in the cannabis plant.

Potential indications: Promising research suggests that CBD and THC may help with chronic pain, certain inflammatory and motor diseases, appetite, anxiety and inflammatory bowel disease, among others.

Sublingual delivery of CBD and THC: Both CBD and THC are known to have poor oral bioavailability. As a result, taking cannabis sublingually has the benefits of a faster onset of action and higher bioavailability. WaferiX, being a validated sublingual wafer, provides a more elegant and convenient way to administer these cannabinoids, giving users a better experience.

Clinical development status: Xativa and Hypera are supplied through Special Access Scheme and Authorised Prescriber pathways in Australia. Xativa is currently prescribed by doctors for a wide variety of conditions including treating anxiety, relieving pain, reducing inflammation, and improving sleep quality, among other conditions, to patients who are not effectively treated with other drugs.

Xativa is the sole investigative product in SIESMIC-CBD study conducted by University of Sydney testing CBD in people with kidney failure.

Nutraceutical products

We believe that our WaferiX drug delivery platform is suitable for the development of other products that incorporate active pharmacological compounds. We strive to combine innovative formulations and delivery systems to produce next-generation nutraceuticals which bring visible and perceptible change to improve our customers' health on a cellular level.

- ***LumeniX & RadianiX***

What it is: Sublingual glutathione wafer for skin brightening and building immunity

Active compound: glutathione

LumeniX is a skin brightening formula designed to lighten and beautify the skin. Glutathione, the key ingredient in LumeniX, is a powerful antioxidant that defends against viral infections and protects the lungs, liver and other organs against inflammation by reducing oxidative stress. It reduces melanin for a fairer complexion. LumeniX is formulated with patented WaferiX sublingual technology to enhance the bioavailability of glutathione.

- ***SL-NAD+***

What it is: Sublingual NAD+ wafer

Active compound: nicotinamide adenine dinucleotide (NAD+)

SL-NAD+ contains pure NAD+. Known as the molecule of youth, NAD+ combats aging, supports energy generation, and activates sirtuins (antiaging genes). For the first time ever, our patented sublingual delivery technology, WaferiX, ensures direct delivery of pure and intact NAD+ into the bloodstream, without the need for invasive intravenous drips or injections.

Performance Metrics

Diversity and equal opportunity

Percentage of women employees within iX Biopharma's governance bodies

Governance Bodies	Percentage of female employees (%)	
	FY2023[1]	FY2022
Board of Directors (Board)	20%	20%
Audit Committee (AC)	25%	25%
Nominating Committee (NC)	33%	25%
Remuneration Committee (RM)	-%	25%
Risk Management Committee (RMC)	33%	25%

Percentage of employees within iX Biopharma's governance bodies by age group

Age Group	FY2023[2]					FY2022				
	Board	AC	NC	RC	RMC	Board	AC	NC	RC	RMC
Under 30 year old	-	-	-	-	-	-	-	-	-	-
30-50 year old	20%	25%	33%	-%	33%	20%	25%	25%	25%	-
Over 50 year old	80%	75%	67%	100%	67%	80%	75%	75%	75%	100%

Percentage of employees per employee category by gender

Employee Category	Percentage of female employees (%)	
	FY2023	FY2022
Management	20%	17%
Executive	43%	17%
Non-executive	47%	54%

Percentage of employees per employee category by age group

Age Group	FY2023			FY2022		
	Management	Executive	Non-executive	Management	Executive	Non-executive
Under 30 year old	-	-	29%	-	-	19%
30-50 year old	40%	43%	42%	33%	50%	46%
Over 50 year old	60%	57%	29%	67%	50%	35%

Training and education

Average training hours per employee gender

	FY2023	FY2022
Per employee	49.1	56.4
Per female employee	47.3	42.0
Per male employee	50.3	65.3

Average training hours per employee category

Employee Category	FY2023	FY2022
Director	5.7	10.2
Manager	21.4	20.5
Executive	71.5	72.4
Non-executive	54.2	70.1

Safety, Health and Environment[2]

	FY2023			FY2022		
	Female	Male	Overall	Female	Male	Overall
Injury Rate (per 1,000,000 working hours)	-	-	-	-	-	-
Lost Day Rate (days lost per 1,000,000 working hours)	-	-	-	-	-	-

Types of injury

	FY2023		FY2022	
	Female	Male	Female	Male
Number of first aid incidents	-	-	-	-
Number of medically treated incidents	-	-	-	-
Number of lost-time incidents	-	-	-	-

[1] During the year, the Board reviewed and reduced the size of board committees.

[2] Source: Injury Rate and Lost Day Rate formula as defined by International Labour Organisation.

GRI Content Index

Statement of Use	IX Biopharma Ltd has reported the information cited in this GRI content index for the year ended 30 June 2023 with reference to the GRI Standards.
GRI 1 Used	GRI 1: Foundation 2021

GRI Standard	Disclosure		Chapter, Page Reference, Performance and/or Explanation for Omissions
General			
GRI 2: General Disclosures 2021	2-1	Organisation	SR-1[3]
	2-2	Entities included in the organisation's sustainability reporting	• iX Biopharma Ltd. • iX Biopharma Pty Ltd • iX Syrinx Pty Ltd • Arrow Property Trust & Kaizen Manufacturing Pty Ltd • iXB Sdn Bhd • Entity Health Ltd • Entity Health Pte Ltd • Entity Health Pty Ltd • Entity Health (China) Co Ltd • Entity Health (Shanghai) Ltd Co • Ligo Pharma Limited • iX Biopharma Europe Ltd • MeltMed, Inc
	2-3	Reporting period	1 July 2022 to 30 June 2023
		Publication date	15 September 2023
		Frequency of reporting	Annually
		Contact point for question regarding the report	SR-1
	2-4	Restatements of information	Not Applicable
	2-5	External assurance	We have not sought external assurance for this reporting period. The sustainability reporting processes were subjected to internal review by the internal audit function that reports directly to the Board's Audit Committee.
	2-6	Activities, value chain and other business relationships	SR-3 &SR-4
	2-7	Employees	SR-3
	2-9	Governance structure	SR-4
	2-10	Nomination and selection of the highest governance body	AR-28 to AR-31
	2-11	Chair of the highest governance body	Mr Eddy Lee Yip Hang, Chairman & CEO
	2-12	Role of the highest governance body in overseeing the management of impacts	SR-4
	2-13	Delegation of responsibility for managing impacts	SR-4
	2-14	Role of the highest governance body in sustainability reporting	SR-4
	2-15	Conflicts of interest	AR-26 & AR-37
	2-17	Collective knowledge of the highest governance body	AR-26 & AR-29
	2-18	Evaluation of the performance of the highest governance body	AR-31 to AR-32
	2-19	Remuneration policies	
	2-20	Process to determine remuneration	
	2-22	Statement on sustainable development strategy	SR-2 & SR-4
	2-23	Policy commitments	SR-4
	2-25	Processes to remediate negative impacts	SR-5, SR-6 & AR-39 to AR-40
	2-28	Membership of associations	Not Applicable
	2-29	Approach to stakeholder engagement	SR-5
	2-30	Collective bargaining agreements	Not Applicable

[3] Page references: SR - Sustainability Report 2023; AR - Annual Report 2023

GRI Standard	Disclosure		Chapter, Page Reference, Performance and/or Explanation for Omissions
MATERIAL TOPICS			
GRI 3: Material Topics 2021	3-1	Process to determine material topics	SR-5 & SR-6
	3-2	List of material topics	SR-6
ECONOMIC			
GRI 201: Economic Performance 2016	3-3	Management of material topics	SR-6 & SR-7 Chairman's Statement, AR-4 – AR-8 Operations Review, AR-11 – AR-15 Business Strategy, AR-16 – AR-19 Financial Review, AR-20 – AR-21
	201-1	Direct economic value generated and distributed	SR-7
	201-4	Financial assistance received from government	SR-7
ENVIRONMENT			
GRI 302: Energy 2016 **GR1:305: Emissions 2016**	3-3	Management of material topics	SR-6 & SR-7 (Partial Compliance)
	302-1	Energy consumption within the organisation	SR-7
	302-3	Energy intensity	
	305-2	Energy indirect (Scope 2) GHG emissions	
SOCIAL			
GRI 416: Customer Health and Safety 2016	3-3	Management of material topics	SR-6 & SR-8 (Partial Compliance)
	416-1	Assessment of the health and safety impacts of product and service categories	SR-8
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	
GRI 404: Training and Education 2016	3-3	Management of material topics	SR-6 & SR-9 (Partial Compliance)
	404-1	Average hours of training per year per employee	SR-9 & SR-13
GRI 405: Diversity and Equal Opportunity 2016	3-3	Management of material topics	SR-6 and SR-9 (Partial Compliance)
	405-1	Diversity of governance bodies and employees	SR-9 & SR-13

GRI Standard	Disclosure		Chapter, Page Reference, Performance and/or Explanation for Omissions
SOCIAL			
GRI 403: Occupational Health and Safety 2016	3-3	Management of material topics	SR-6 and SR-9 (Partial Compliance)
	403-1	Occupational health and safety management system	SR-9 & SR-13
	403-2	Hazard identification, risk assessment, and incident investigation	
	403-4	Worker participation, consultation, and communication on occupational health and safety	
	403-9	Work-related injuries	
Innovation			
Innovation	3-3	Management of material topics	SR-6 & SR-10
	Non-GRI	Annual research and development investment	SR-10 to SR-12
		Number of products launched	
		Products under development	

TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD) INDEX

TCFD Thematic Areas	Recommended Disclosures	References and Remarks
1. Governance Disclose the organisation's governance around climate-related risks and opportunities	a) Describe the board's oversight of climate-related risks and opportunities	SR-2 and SR-4
	b) Describe management's role in assessing and managing climate-related risks and opportunities	SR-4
2. Strategy Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material	a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term	We have not identified climate-related risks and opportunities at the time of this report. We are evaluating carrying out a preliminary risk assessment of how climate change will affect our operations. When more information is available, we will present our strategies and plans in our future reports.
	b) Describe the impact of climate-related risks and opportunities on the organisation's business, strategy, and financial planning	
	c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	
3. Risk Management Disclose how the organisation identifies, assesses, and manages climate-related risks	a) Describe the organisation's processes for identifying and assessing climate-related risks	SR-4
	b) Describe the organisation's processes for managing climate-related risks	
	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management	
4. Metrics and Targets Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process	SR-6
	b) Disclose Scope 1, Scope 2, and if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	SR-7
	c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets	SR-6