

# THE COVIRIX MEDICAL PITCH

# COVIRIX Medical Pty Ltd

***DELIVERING INNOVATION***

*Repurposed Inhaled Broad-Spectrum Therapies for Pulmonary  
Diseases*  
(Respiratory Infections)

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# COVIRIX Medical your Partner with a purpose

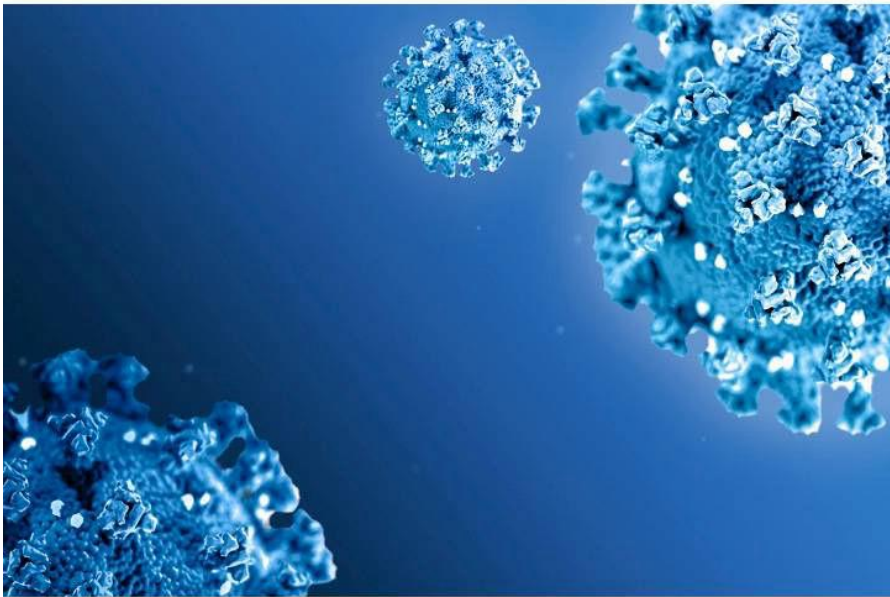


Image by rawpixel.com

- **Is the world prepared for the next respiratory disease pandemic? More importantly, is your country prepared for the next respiratory disease pandemic?**

# Proposed investment in COVIRIX Medical

- COVIRIX Medical is a pharmaceutical company based in Melbourne, Victoria.
- COVIRIX Medical's business is dedicated to repurpose and develop antiviral and anti-inflammatory drugs for treatment of **Pulmonary Diseases (Respiratory Infections)**, including COVID-19, with existing small molecule antivirals **uniquely administered via oral inhalation**.
- We value our shares at **US\$3,520 per share** based on net present value of our Discounted Cash flows valuation model at a 15% discount rate. Total value is estimated at US\$303 billion. This valuation is based on our COVID antiviral treatment being priced at **US\$250 per course** compared to Pfizer's COVID antiviral treatment Paxlovid at at US\$1,400 per course and Merck's antiviral at US\$700 per course.
- However, we have also calculated Net Present Value per COVIRIX Medical share based on a much reduced price of **US\$65 per course of our same antiviral treatment** at NPV discount rates of 10%, 15%, 20% and 25% which results in a valuation of **US\$16.60, US\$12.37, US\$9.36, and US\$7.17 per share respectively based on projected 86.065 million shares compared to currently 62.365 million shares on issue. Based on the existing 62.365 million shares**, the respective valuation per share at the various discount rates rises to **US\$22.91, US\$17.07, US\$12.91, US\$9.90** (See Appendices 1 and 2). The much reduced price of US\$65 per course allows us to compete effectively with other therapeutic treatments for a wide range of respiratory diseases.

# COVIRIX Medical your Partner with a purpose

- repurposing an existing antiviral with anti-inflammatory property.
- demonstrated effectiveness against a number of SARS CoV-2 variants in extensive in-vitro studies.
- **unique mechanism of action and broad spectrum antiviral.**
- same patented antiviral treatment applicable to treating wide range of viral respiratory diseases: (all types of) influenza including Avian Flu, RSV, metapneumoviruses, seasonal coronaviruses, etc.



Range of capsule-based Monohaler dry powder devices

# Purpose-driven founders & team



We are a team of renowned professionals with complementary expertise and decades of industry experience, collectively the best qualified team in Australia to deliver our stated mission. We are a team of professionals with complementary expertise and deep experience in healthcare, biotech, drug development, synthesis and testing, and investment banking.

## Board of Directors:



Prof Kumud Dhital  
Founder, CEO



Richard LI Founder,  
Executive Director Head of  
Corporate Development



Dr Ian Nixon Founder,  
Executive Director Chief  
Medical Officer

# Purpose-driven founders & team

## Senior Management:



Prof David Morton,  
Consultant Aerosol  
Scientist



Dr Simon Tucker, Chief  
Virologist & Head of  
Clinical Development



Prof Seb Marcuccio,  
Founder, Medicinal &  
Drug Discovery  
Chemist



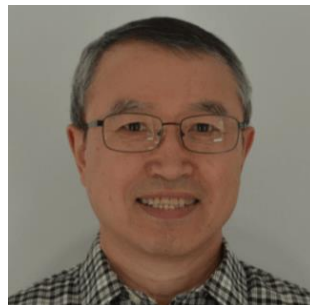
Eric Pong, Company  
Secretary CFO

## Scientific Technical Advisory Board:



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Department of  
Medicine, The  
University of Hong  
Kong  
Member of the  
COVID-19 Expert  
Advisory Panel,  
HKSAR



# Deep understanding of the problem



Sole reliance on vaccination as a route to eliminate the current and future pandemics is evidently naïve.

Emergence of cross-variants from recombination of variants or the emergence of other viruses with pandemic potential such as influenza add little comfort and raise further concern.

The logical treatment strategy is an effective ***broad spectrum antiviral*** drug to kill viruses by blocking their reproduction

**Our approach is to repurpose existing pharmaceutical drugs:**

with proven antiviral efficacy against SARS-CoV-2 and many other viruses, with adjunctive anti-inflammatory properties, and

**proprietary delivery via oral inhalation and intranasal inhalation routes** as highly targeted treatment options against current ***and future*** pandemics together with seasonal diseases.

We're responding to COVID-19

**We're preparing for future mutations of the virus**

**And readying for inevitable next respiratory virus pandemic.**



Range of capsule-based Monohaler dry powder devices

# Breakthrough patented technology and novel solutions



- a 20 years Australian patent for repurposed antiviral for treatment and prevention of pulmonary and respiratory infections.
- IP is patent pending in US, EU, China, and Japan.
- **designed to be administered by oral inhalation** to provide a targeted treatment solution for COVID-19,
- offers faster onset of action, reduced side effects compared to systemic (oral) drugs. [Covirix announcement 8 March 2022.pdf](#)

The logo for the Australian Government Intellectual Property Office (IP Australia), featuring the coat of arms of Australia and the text "Australian Government IP Australia".

CERTIFICATE OF GRANT  
**STANDARD PATENT**

Patent number: 2021332085

The Commissioner of Patents has granted the above patent on 23 March 2023, and certifies that the below particulars have been registered in the Register of Patents.

**Name and address of patentee(s):**  
COVIRIX Medical Pty Ltd of Level 1, 237 East Boundary Road Bentleigh East VIC 3185 Australia

**Title of invention:**  
Glucosidase inhibitors for the treatment and prevention of pulmonary infections

**Name of inventor(s):**  
MARCUCCIO, Sebastian Mario; MORTON, David Alexander Vodden and TUCKER, Simon Peter

**Term of Patent:**  
Twenty years from 25 August 2021

**Priority details:**

| Number     | Date           | Filed with |
|------------|----------------|------------|
| 2020903051 | 26 August 2020 | AU         |

Dated this 23<sup>rd</sup> day of March 2023  
Commissioner of Patents

The logo for the Australian Patent Office, featuring the coat of arms of Australia and the text "COMMONWEALTH OF AUSTRALIA AUSTRALIA PATENT OFFICE".

**PATENTS ACT 1990**  
The Australian Patents Register is the official record and should be referred to for the full details pertaining to this IP Right.

# A compelling market opportunity

- rising tide of vaccine resistant strains,
- vaccine hesitancy,
- large parts of the third world unvaccinated,
- unknown but limited duration of antibody protection.
- infective waves or surges for multiple reasons:
  - immune escape from emerging new variants, Omicron the most ubiquitous form.
- best approach: develop an effective **broad spectrum antiviral** to treat COVID-positive individuals, regardless of their symptomatic status
- would dramatically limit the spread of infection and allow global societies to return to normality in a shorter period.
- learnings from the COVID pandemic can be applied to future outbreaks of coronavirus and other viruses **using the same COVIRIX therapy.**



# Gaining Traction

completed successfully virology studies in Australia, The US, and the Netherlands.

These studies demonstrated by the mechanism of action effectiveness of the portfolio of our drug candidates against a range of SARS CoV-2 variants.

COVIRIX is seeking direct to government pre-purchase orders, scaling up production by partnering with pharmaceutical manufacturers particularly those with proprietary inhalation devices and are involved in API production.



Range of capsule-based Monohaler dry powder devices

# COVIRIX Medical: Impacting the world



- **COVIRIX Medical and South African Numolux Group have entered into a strategic partnership (Appendix 3) that will focus on establishing an inhaled antiviral drug development platform by repurposing, starting with South Africa for the African continent, then extending to the entire BRICS Plus Alliance for treatment of diseases, starting with viral respiratory diseases using COVIRIX Medical's portfolio of antiviral drug candidates with oral and intranasal inhalational delivery routes.**
- **The parties will co-operate with each other in the areas of pre-clinical and clinical research, registration, marketing, and distribution of antiviral products in South African and other African markets.**
- **The Numolux Group launched the BRICS Health and Pharmaceutical Association of Africa in May 2023.**
- **COVIRIX Medical is the first Australian pharmaceutical company to position itself in the BRICS Plus Alliance, leveraging on the strong business relationships of the Numolux Group within South Africa, a key member of the BRICS Plus Alliance, and the leadership of South Africa within the African continent, a market with a population of over 1.4 billion people.**

## Appendix 1: NPV of COVIRIX Medical – US\$ 65 per course

Covirix Medical Pty Ltd  
Net Present Value & Cashflow Projection

|  |             | Annual discount rate |          |          |        |
|--|-------------|----------------------|----------|----------|--------|
|  |             | 10%                  | 15%      | 20%      | 25%    |
| NPV  | USD million | 1,428.47             | 1,064.58 | 805.15   | 617.34 |
|  | AUD million | 2,100.69             | 1,565.56 | 1,184.04 | 907.85 |
| NPV per share based on projected 86.065 million shares | USD         | 16.60                | 12.37    | 9.36     | 7.17   |
|  | AUD         | 24.41                | 18.19    | 13.76    | 10.55  |
| NPV per share based on existing 62.365 million shares  | USD         | 22.91                | 17.07    | 12.91    | 9.90   |
|  | AUD         | 33.68                | 25.10    | 18.99    | 14.56  |

(at assumed exchange rate of 1 AUD to 0.68 USD)

# Appendix 2: NPV model of COVIRIX Medical – US\$ 65 per course



| Cashflow Projection                             | Note    | Yr0          | Yr1             | Yr2             | Yr3               | Yr4               | Yr5               | Yr6               |
|---|---------|--------------|-----------------|-----------------|-------------------|-------------------|-------------------|-------------------|
|   |         | USD          | USD             | USD             | USD               | USD               | USD               | USD               |
| <b>Revenue</b>                                  |         |              |                 |                 |                   |                   |                   |                   |
| Covirix antivirals gross margin                 | 5 - 10  |              | \$3,420,000,000 | \$3,420,000,000 | \$6,840,000,000   | \$10,260,000,000  | \$13,680,000,000  |                   |
| Country Distributor share (10%)                 |         |              | (\$342,000,000) | (\$342,000,000) | (\$684,000,000)   | (\$1,026,000,000) | (\$1,368,000,000) |                   |
| Zuccoins (net)                                  |         | \$20,544,000 |                 |                 |                   |                   |                   |                   |
| <b>Gross Profit</b>                             |         | \$20,544,000 | \$3,078,000,000 | \$3,078,000,000 | \$6,156,000,000   | \$9,234,000,000   | \$12,312,000,000  | \$0               |
| <b>Expense</b>                                  |         |              |                 |                 |                   |                   |                   |                   |
| R&D and development costs                       | 1       | \$4,000,000  | \$5,000,000     | \$6,000,000     | \$7,000,000       | \$8,000,000       | \$9,000,000       |                   |
| Australian R&D Incentive Tax Rebate             | 2       |              | (\$1,740,000)   | (\$2,175,000)   | (\$2,610,000)     | (\$3,045,000)     | (\$3,480,000)     |                   |
| HKSE listing expenses                           | 3       | \$5,000,000  |                 |                 |                   |                   |                   |                   |
| Administration overheads                        | 4       | \$1,000,000  | \$1,000,000     | \$1,000,000     | \$1,000,000       | \$1,000,000       | \$1,000,000       |                   |
| <b>Total Expense</b>                            |         | \$10,000,000 | \$4,260,000     | \$4,825,000     | \$5,390,000       | \$5,955,000       | \$6,520,000       | \$0               |
| <b>EBITDA</b>                                   |         | \$10,544,000 | \$3,073,740,000 | \$3,073,175,000 | \$6,150,610,000   | \$9,228,045,000   | \$12,305,480,000  | \$0               |
| Income tax expense                              | 17%     | \$0          | (\$524,328,280) | (\$522,439,750) | (\$1,045,603,700) | (\$1,568,767,650) | (\$2,091,931,600) |                   |
| <b>Net Profit (loss)</b>                        |         | \$10,544,000 | \$2,549,411,720 | \$2,550,735,250 | \$5,105,006,300   | \$7,659,277,350   | \$10,213,548,400  | \$0               |
| <b>Capital Injection</b>                        | 12 - 13 | \$85,000,000 |                 |                 |                   |                   |                   |                   |
| <b>Sale of the company</b>                      | 11      |              |                 |                 |                   |                   |                   | \$204,270,968,000 |
| <b>Net Cashflow</b>                             |         | \$95,544,000 | \$2,549,411,720 | \$2,550,735,250 | \$5,105,006,300   | \$7,659,277,350   | \$10,213,548,400  | \$204,270,968,000 |
| <b>EPS based on 86.065 million shares (USD)</b> | USD     | \$1.11       | \$29.62         | \$29.64         | \$59.32           | \$88.99           | \$118.67          | \$2,373.45        |

## Important assumptions:

- Annual R&D costs: starting Y0 at US\$4 million, increasing by US\$1 million each of subsequent years, for virology tests, respiratory toxicology tests, cost of consultants, test sample, etc.
- Australian R&D Incentive Tax Rebate 43.5% received in the following year
- HKSE listing expenses US\$5 million on total raise US\$10 + US\$75 million.
- Annual administration overheads: US\$1 million.
- Global COVID infections to reach 20% of world population (note that about half of American adults say they have been infected with COVID-19 at some point—considerably more than have reported testing positive. Spanish Flu infected 28% of global population by 1921. Mutations have enabled immune escapes despite immunity from vaccines and prior infections. We assume new infections at 20% of global population annually for the next 5 years. However annual cases of Upper Respiratory Tract Infections (URI) will far exceed Covid infection cases. See assumption 6.  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8343248/>
- Covirix will capture 5% market share of the global infections market (ie 7.6 billion x 20% global infections) initially from Yr1, and 5% market share at Yr2, with increase of 5% market share for each subsequent year. A global study of Upper Respiratory Tract Infections in 204 countries from 1990 to 2019 found that URIs reached 17.2 billion cases in 2019. This was equivalent to an average of 2.26 URI cases per person annually globally. Our assumed number of courses however, is equivalent to in yr 1 and 2: 0.44%, yr3: 0.88%, yr 4: 1.32%, yr 5: 1.76% of annual URI cases.  
[https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370\(21\)00266-2/fulltext](https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(21)00266-2/fulltext)
- Covirix oral inhalable wholesaled at US\$65 each course ex-factory gate. We assume the current sales practice of pharmaceutical company direct to government sales to continue.
- \$20 per course for Cost Of Goods (COG) sold includes drug compound, packaging, inhaler cost but does not include logistics costs, freight, insurance, and storage costs which are to be borne by government.
- No revenue has been allowed for sales for Long Covid treatment though we estimate that, 50% of people who have recovered after infections without early treatment with our antiviral, may still suffer from Long Covid.
- Terminal value at 20 times year 5 projected cash flows based on takeover value of COVIRIX Holdings Ltd. COVIRIX Medical Pty Ltd will be restructured for the pre-IPO to be a wholly owned subsidiary of COVIRIX Medical Holdings Ltd which will be seeking listing on HKSE under the Biotech sector of Chapter 18A HKSE Listing Rules. It is assumed that COVIRIX Medical Holdings will be acquired and be taken over by year 6 at 20X Yr5 cashflows.
- Pre-IPO investors placement shares issued price US\$2 per share. IPO price at US\$4 per share.
- Number of COVIRIX Medical shares used for valuation is 86.065 million shares assuming completion of pre-IPO offer of US\$10 million and planned IPO offer US\$75 million.
- Present Value Discount rate at 10%, 15%, 20% .
- Australian Corporate tax payable at 30%, however under the Patent Box legislation introduced into the Federal Parliament on 10 Feb 2022 company profits derived from Australia or US granted medical and biotechnology patents will receive a concessional tax rate of 17 per cent from July 1, 2022.
- AUD to USD fixed at 68 cents exchange rate.



## MEDIA RELEASE



### FORMATION OF A PRIVATE SECTOR BRICS HEALTH AND PHARMACEUTICAL ASSOCIATION CAN PLAY HUGE ROLE IN MAKING QUALITY HEALTHCARE ACCESSIBLE TO AFRICA

#### For Immediate Release

22 August 2023

On Thursday, 17 August 2023, the Numolux Group held an event to commemorate the culmination of their series of Health Seminars titled: BRICS and Africa: African Solutions to Africa's Health Challenges.

The purpose of these seminars was to bring together stakeholders, namely businesses, governments, academics, civil society and interested individuals and institutions, to focus on health challenges faced by the people of BRICS and African Countries and find solutions to said challenges.

Findings from these seminars, which focused on malaria, non – communicable diseases (oncology and diabetes), regulatory harmonisation and mental health and wellness – clearly emphasised that there is a need for:

- greater collaboration between the private and public sectors to improve the quality of health and promote wellness,
- the harmonisation of the regulatory authorities within the SADC, the African continent and BRICS countries,
- BRICS investment in the pharmaceutical and medical equipment space, from research and development through to manufacturing,
- these products are to be made available to the continent of Africa.

There is a need for greater collaboration between regulatory authorities within SADC, Africa, and the BRICS to facilitate ease of trade and to increase access to affordable medicines, pharmaceuticals and vaccines, preferably manufactured locally.

Dr Owen KALUWA, WHO Representative for South Africa, was present at the event and cited challenges in global healthcare as follows:

- Around 30% of the global population cannot access essential health services (2019).
- Almost 2 billion people face catastrophic or impoverishing health spending, with significant inequalities affecting those most vulnerable (2017).
- Many other health-related SDG targets are also, of course:
- An estimated 5 million under-5 children died in 2021.
- Global MMR is 223 maternal deaths per 100 000 live births (2020), against the SDG global target of 70.
- Globally we are off course for SDG targets on infectious and non-communicable diseases.

With all of the above in mind, Col (Ret) Hilton Klein, Chairperson of the Numolux Group fiercely advocated for the formal formation of a private sector BRICS Health and Pharmaceutical Association. He said: "As the private sector, we can no longer stand by as Africa and her people get the short end of the stick in healthcare. Within our space of BRICS and African countries, we can work alongside governments and produce life-saving medicines, vaccines and medical-related products – which are easily accessible and more affordable to the most underserved populations of the globe.

Member of SA BRICS Business Council, Stavros Nicolaou, spoke at the Numolux event and echoed Col. Klein's sentiment, saying Africa needs financial support to strengthen the health infrastructure and be able to procure medicines and vaccines to help fight against pandemics which hit the continent. Nicolaou insisted that "Africa should be given an equal opportunity to equality of resources, pharmaceutical interventions, medicines, and vaccines."

The Deputy Minister of Health, Dr Sibongiseni Dhlomo, emphasised that South Africa is committed to building a partnership between BRICS and Africa in a bid to unlock mutually beneficial opportunities for increased trade, investment, and infrastructure development.

One positive event, which could lead to creating jobs at a crucial time in South Africa's economy, was the announcement of a new partnership between COVIRIX Medical from Melbourne, Australia and the Numolux Group.

Prof Kumud Dhital, CEO of COVIRIX Medical, was present at the event and said he was excited about their new venture with Numolux: "COVIRIX Medical is delighted to announce a partnership with the South African Numolux Group towards further developing and introducing our repurposed, and now patented inhalational antiviral therapy to the African continent and ultimately to the BRICS + Alliance, and beyond. Extensive pre-clinical studies demonstrate effectiveness against several SARS-CoV-2 variants. In addition, due to its unique mechanism of action, we believe that it will provide broad-spectrum effectiveness against a wide range of viral respiratory diseases."

"I believe that the power of this partnership will go well beyond this immediate remit and that it will provide a sustainable platform to accelerate the development of additional therapies for other diseases, whenever possible, through our repurposing strategy that significantly shortens the standard timeline of product discovery to prescription.

We are confident that this strategic global relationship between our Australian company and the Numolux Group will eventually permit us to jointly deliver a wider portfolio of healthcare solutions beyond therapeutic and prophylactic pharmaceuticals, including diagnostic solutions."

Richard Li, Executive Director and Head of Corporate Development at COVIRIX Medical, added: "We are proud to be the first Australian pharmaceutical company to have partnered with the dynamic Numolux Group of South Africa to leverage on the business and investment opportunities available from the African continent and the BRICS Alliance."

For more information on the outcomes of the Series of International Health Seminars (Malaria, Non –Communicable Diseases, Regulatory Harmonisation and Mental Health and Wellness)



# Contact Information



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