Pānui -Kaipupuri Hea Maehe 2022

Shareholder Newsletter

March 2022



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Tēnā tātou e hika ma Greetings to you all

It's with much pleasure that we provide you with another Rua Shareholders' update.

In the past six months the team has been extraordinarily focused, reaching some ambitious but critical milestones across the business. Our manufacturing team gained GMP certification in November 2021; our production team received confirmation that our first medicinal cannabis product meets the NZ Medicinal Cannabis Agency's (Medsafe's) quality standards in December 2021; our cultivation team has been running our indoor and outdoor facilities at full capacity as we work through a battery of engineering and validation trials; our research team has attracted funding and support for innovations across the value chain; and the finance team have done an enormous amount of work in preparing the details of the Zalm acquisition alongside the half year financials.

We will talk about this and more inside and a recap our top stories. We hope you'll gain insight into how well we're progressing as a company in creating cannabinoid-based medicines that have the potential to change people's lives from right here in Te Tairāwhiti.

We hope you enjoy reading this newsletter. If you have any feedback, please email us at info@ruabio.com

Thanks for joining us. **Ngā mihi nui,**

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Rob Mitchell CEO, Rua Bioscience

Kua mana te huanga tuatahi a Rua

Rua given the green light to distribute first product to New Zealand patients

In December, Rua received confirmation that our first medicinal cannabis product meets the NZ Medicinal Cannabis Agency's (Medsafe's) quality standards, enabling us to distribute our first medicine in New Zealand.

New Zealand patients and prescribers will be able to include Rua's first product in their treatment plan by late late March to early April, when it becomes available as a prescription-only medicine through GPs and specialists. Rua will manufacture the medicine in our purpose-built facility in Gisborne, having gained Good Manufacturing Practice (GMP) certification for the product late last year.

CEO Rob Mitchell explains the significance of the achievement, which positions the company well as we sharpen our focus on bringing products to market and creating sustainable revenue.

"In the last two years, we've laid the foundations for commercialisation. We built cultivation and manufacturing facilities in Te Tairāwhiti, listed on the NZX and hired local and international expertise to help us realise our vision of becoming an industry-leading pharmaceutical company."

With Medsafe approval, Rua now begins the first step in the revenue generation phase of our journey, delivering against our commercial imperatives in 2022.

Rua Bioscience Chief Commercial Officer Dr Andrea Grant says, "our commercial strategy recognises the need to diversify revenue, accelerate market entry and expand patient choice. Whilst New Zealand may be a small market, it is growing rapidly. Patients and prescribers rely on the local industry to provide them with brand and product choice to address their unmet health needs. Medsafe's approval of our first product is a crucial step for Rua.

"We are fully focused on meeting the needs of patients, our community and our investors, who have been steadfast in their support."





Kua hono ēnei kaupapa e rua: Rua and E3C establish landmark grower partnership

Rua welcomed the East Coast Cannabis Company (E3C) as our first local cultivation partner in December. The arrangement brings expertise, expands our outdoor cultivation capacity and establishes pathways for local growers to participate in the global industry.

E3C's welcome was a significant moment for our kaupapa-driven enterprise, Rua and E3C previously working separately towards employing a new generation of medicinal cannabis growers.

E3C founder, Porourangi Tawhiwhirangi (Porou), is one of several East Coast growers considered the driving force behind the region's developing hemp and medicinal cannabis industries. A highly-skilled and passionate grower, Porou attended then facilitated the EIT Sustainable Land-Based Practices programme and is widely respected as a trainer and mentor.

"Like Rua, we were focused on what we could do for our people. Through EIT's programme, we focused on encouraging the passions of our students. However, pathways into the industry haven't always been apparent.

This partnership is about the future and creating a legitimate and sustainable pathway to employment in the medicinal cannabis industry - growing the workforce that Rua needs.

This summer, the E3C team is responsible for Rua's outdoor trial crop; planting, managing and harvesting unique Rua cultivars in our 3,000m² outdoor growing facility.



Then... E3C founder, Porou Tawhiwhirangi, infront of the outdoor trial crop as it was planted in December.

Rua Bioscience CEO, Rob Mitchell, describes the arrangement as a pivotal moment in our journey.

"What happens here in Mangaoporo is at the heart of everything we do. The products we produce, the genetics from this area, the people we journey with – it's these things that will help differentiate Rua Bioscience in a competitive industry."



Now... Sunrise over a more mature outdoor trial crop at Mangaoporo, just weeks away from harvest.



Consumers around the globe want to know that when they buy a premium product, they can trust it is authentic. The FernMark, as a trademark officially recognised and endorsed by the New Zealand Government, represents the story of who we are and where we're from, our New Zealand Story. It's a symbol people recognise and trust - a trademark that embodies the FernMark values of kaitiaki, integrity, ingenuity.

Carrying the FernMark on Rua's first product makes it easy for patients and prescribers to verify its authenticity – a real competitive advantage in markets where provenance (origin) is a key driver of purchasing behaviour.

It also means Rua is part of a group of businesses building the New Zealand brand through individual excellence and collective storytelling, building consumer confidence and driving preference for New Zealand products and services around the world.



Mai i te kākano ki te rongoā

Rua and Callaghan - farm to pharmacy innovation

Rua aims to create long-term profitability across the medicinal cannabis value chain by developing world-class partnerships and programmes in the R&D space.

Rua recently received a \$376,000 grant from Callaghan Innovation to support our projected \$1.25m investment into plant science and the creation of uniquely superior medicinal cannabis products, deploying the funding across the company's value chain.

Chief Research Officer, Dr Jessika Nowak, says, "we're taking a farm to pharmacy approach to R&D - looking at specific innovations that will enable our team to create exceptional products."

Our relationship with Callaghan Innovation means we can accelerate our bid to create premium-quality Rua branded products for a global market with valuable and defendable points of difference.

WAIKATO Plant & Food RESEARCH

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"We're looking at a range of innovative ventures from cultivation to packaging, including the identification of high-performing commercial cultivars developed by our team in Ruatorea; our existing hyperspectral imaging project; advancements in CO2 extraction; packaging innovations to improve the quality and stability of Rua products, and development of a DNA database to track and protect unique Rua cultivars."

In June, we also launched our ground-breaking, two-year research programme with the University of Waikato to investigate the potential of hyperspectral imaging to revolutionise crop management practice. The research programme will pave the way for Rua to enter the global cannabis testing industry, expected to be worth \$2.5bn (USD\$1,806 million) by 2025.

Regulatory trailblazer joins Rua

Rua is pleased to welcome Susan Martindale to our commercial team as head of regulatory affairs. Susan has a lifetime of experience in regulatory affairs spanning New Zealand, Australia and Europe.

After graduating from Victoria University with a PhD in biochemistry, Susan qualified and worked as a patent attorney for several years before joining the (then) Department of Health medicines assessment team. In the early 1980s, she became New Zealand's only GMP auditor - a role that continued for several years. Susan then moved into various regulatory, advisory and management positions within the Ministry, including chairing the Ministerial advisory committee responsible for medicines classification. Over this period, Susan was involved in a broad range of projects, including the negotiations which led to the signing of a Mutual Recognition Agreement with the EU and the work programme to harmonise with Australia.



For the last couple of years, Susan has worked for Zalm Therapeutics as their regulatory affairs and quality manager, responsible for filing Zalm's applications for assessment against the minimum quality standard.

Joining Rua, Susan will be responsible for the worldwide regulatory filings and approvals of our range of products.

ZOM®

Kua whakaae nga kaipupuri hea

The stage is set to accelerate market entry and expand market choice Rua Bioscience shareholders have overwhelmingly approved the purchase of New Zealand owned medicinal cannabis company Zalm Therapeutics, throwing further weight behind our bid to become New Zealand's premier medicinal cannabis company.

We expect the purchase of Zalm will be transformative for Rua. Between our unique kaupapa, expertise and innovation, and Zalm's global-scale GMP capability as a result of their contract with Cann Group and experienced distribution partners, we have the potential to create a powerful global brand faster.



Expanding consumer choice

This acquisition will enable us to develop our product range faster.

Our first Rua-branded product will be available by mid-April. Initially made from globally-sourced ingredients, Rua's premium product range will soon include locally-produced oil and ingredients grown from exclusive Rua genetics. We will supplement this with a range of Australian-grown cannabis oil products which we expect to have on the market later this year.

Patients and prescribers will also access a comprehensive digital platform, designed by Atlantis Health, that provides upfront and ongoing support using medicinal cannabis products.



Supercharging our export aspirations

Cann will deliver world-class globally competitive scale and GMP capability through its Mildura site. Cann is currently in the final stages of commissioning Mildura, a facility expected to become one of Australasia's largest and most technologically advanced indoor growing and manufacturing facilities. Acquiring Zalm's third-party contract with Cann Group should give us faster access to global markets and generate export revenue sooner.

Distribution relationships will underpin this unprecedented access to products, giving us direct access to wholesale channels in select markets around the globe. This will begin with dried flower and oil products to Germany late in 2022.



Supporting kaupapa, job creation

The stability anticipated by this deal will reinforce Rua's local operations, the development of unique East Coast medicinal cannabis cultivars, and its commitment to job creation on the East Coast.

Rob Fyfe, previous Chairman of Zalm, says, "The team at Zalm are thrilled that Rua's shareholders have given the green light to progress the Zalm acquisition. We have developed an excellent working relationship and deep respect for the kaupapa, culture and vision of the Rua team and wider stakeholder community, and we look forward to supporting the Rua team to realise the potential of this transaction."



In December, Rua asked shareholders to consider the \$10m purchase of Zalm Therapeutics. Shareholders approved the acquisition with a 99.79% vote for the resolution at a Special meeting held on January 19, 2022. The purchase sees Rua issue 28,735,632 shares over three years to Zalm Therapeutics' shareholders based on the achievement of agreed milestones. E whakamanea ana i nga iho pūmanawa o te ao

Attracting world-class talent



Jack Chan

Mpharm, MBA - Production Manager

Jack is one of the newest members of our team, filling a critical role as the company scales to full production in 2022.

Originally from Malaysia, Jack comes to Rua with almost a decade's experience in pharmaceutical manufacturing, working in the highly regulated Asia Pacific market.

After several years as a practicing pharmacist, Jack's first foray in pharmaceutical manufacturing was as a production pharmacist for Malaysian Pharmaceutical Industries, manufacturing a range of pharmaceutical formulations (e.g. tablets, capsules, creams and syrups). His time there provided comprehensive training in all aspects of pharmaceutical manufacturing. Jack then moved to a larger multi-national pharmaceutical company, B. Braun Medical Industries Malaysia, which specialises in compounding bulk sterile solutions for hospitals around the world. As senior pharmacist, Jack's role was to oversee the quality assurance, licencing, and regulatory requirements of GMP and ISO, working at a global scale.

In 2018, Jack and his family moved to Dunedin so that Jack could complete his doctorate at the University of Otago's School of Pharmacy.

As production manager, Jack oversees the compliant production of all Rua medicines. While medicinal cannabis is new, Jack says he feels at home in the GMP manufacturing environment, recognising Rua is entering exciting times.

He says, "there's a lot of things that need to come together before a pharmaceutical company can move into production. Rua has built a great manufacturing team, and I'm thrilled to join them as we get our first products to market".



Amy Quattlebaum

MSc Biochemistry - Quality Control Analyst

Amy grew up in the Appalachian Mountains, North Carolina. She trained as a biochemist at the University of North Carolina before falling in love with analytical chemistry.

So, when Auckland-based start-up, LanzaTech moved its carbon recycling company to Chicago, Amy jumped at that opportunity to join the team, eventually becoming its analytical quality assurance lead.

"LanzaTech makes climate safe materials and fuels. They convert waste carbon into everyday products. It's really cool, new science in a new industry. It was inspiring."

Being a NZ company, Amy got to know the people and the country. She also had the opportunity to immerse herself in the uniquely kiwi work environment. It's an approach Amy says is very different from standard corporate America and one she has come to admire. She also got to visit.

In making a more permanent move to New Zealand, Amy says she was looking for a great place to raise her daughter (her dad being from Taupō) and a great science opportunity.

"That's when I discovered Rua. I was fascinated, one, by the company itself – its image, positivity and sense of community. Then, two, by the industry - and the opportunity to develop new science."

Amy's work with Rua spans the value chain. She will be responsible for testing products during and postmanufacture, essentially acting as the internal check that ensures medicines coming off the production line meet specification (before they're independently tested again). Amy will also work with the R&D team to develop Rua's unique strains.

Amy says she's excited about Rua's future and especially for what the next 12 months hold.

"With everything that's going on, this will be the year that defines us."

Umanga, the Rua Bioscience careers series

Our team is passionate about inspiring and encouraging the next generation of East Coast scientists, researchers, inventors and entrepreneurs. We can do that in a number of ways, one is by shining a light on the pathways into the developing medicinal cannabis industry.

In a New Zealand first, Rua has developed a set of tools designed to inspire a career in the medicinal cannabis industry.

'Umanga', the Rua Bioscience Careers Series, includes a comprehensive booklet and a visual series that targets rangatahi at high school and those yet to decide their career pathway. We've kept it simple, our team speaking directly to rangatahi about the medicinal cannabis industry, their role, their personal and professional journeys (including some bumps in the road) and their passion for our mahi.

The toolbox includes the Rua careers booklet, which features ten Rua staff members, and an online fiveepisode visual series. It's fun, informal and frank. It gives insight into the real world opportunities for those interested in careers that build on STEM disciplines and those aspiring to make a difference from right here at home.

Rua created the series with help from Trust Tairāwhiti and will release it in March. You can register for a copy, hot-off-the-press, by emailing Darylene.rogers@ruabio.com.

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Tiakina te taiao Go paperless

We encourage you to elect to receive all your Rua Bioscience shareholder communications electronically. Electronic communications are quick, cost-effective and more environmentally friendly. If you elect to receive electronic communications, you will receive an email link to shareholder reports rather than printed notifications.

To update your shareholder information online, please visit <u>www.investorcentre.com/nz</u>. You will need your CSN and FIN to register on Investor Centre to view and update your shareholder details and select your communication preferences. Alternatively, you can email <u>enquiry@computershare.co.nz</u>.



Get to know us – Our vision at Rua Bioscience is simple – to create cannabinoid-based medicines that change people's lives.

We're focused on becoming a leading producer of medicinal cannabis formulations for patients around the world. We have a social mission that sets us apart – creating sustainable economic opportunities for the people of Te Tairāwhiti.

These pou underpin everything we do as a successful, sustainable, and trusted partner that creates value for our people, communities, shareholders, and other stakeholders.

Ngā uara

At Rua, we operate with a simple but important set of values:

Ponotanga

We value diversity and act with integrity.

Māuitanga

We're future-focused, celebrating courage, curiosity and innovation.

Oranga

We're passionate about the health of whānau and our whenua.

Whakawhanaungatanga

We collaborate for success.

Kei te kimi koe i nga kōrero hou?

Looking for the latest information?

Following the NZX listing rules, the NZX website is the first place we make all required announcements to the market. Here we first release information including our financial results and Annual Report, director and senior management changes, meeting notices, market updates, major transactions - a range of things it's important shareholders know. It's worth visiting regularly - www.nzx.com/instruments/RUA

You can also keep up to date with our performance and all the latest company news by following Rua online via:

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- **in** <u>linkedin.com/company/rua-bioscience</u>
- instagram.com/ruabioscience

Whakahaerehia ōu hea

Manage your shareholding

Computershare maintains the Rua Bioscience share register. If you have any questions about your shareholding, please contact the Computershare team on +64 9 488 8777 or email them at enquiry@computershare.co.nz.

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