

## DECEMBER 2022 QUARTERLY UPDATE

---

- **Bio-Gene and STK Bio-ag Technologies agree on binding terms relating to global Qcide™ collaboration**
- **Clarke and Evergreen development partnerships continue to make good progress**
- **Plant Breeder's Rights applications made for Qcide IP**
- **Patents granted in key African (ARIPO) countries**
- **Manufacturing Webinar update provided by Bio-Gene Program Manager**
- **Bio-Gene Head of Regulatory Affairs speaks at international Biocides Conference**

Bio-Gene Technology Limited (ASX: BGT, 'Bio-Gene' or 'the Company'), an agtech development company enabling the next generation of novel insecticides, today announced an update on its activities for the quarter ending 31 December 2022 and to date.

Bio-Gene Chief Executive Officer and Managing Director, Richard Jagger said: "The execution of the binding term sheet with STK is an impressive key validation point for the Company as it effectively provides non-dilutive funding to achieve the registration of Qcide which Bio-Gene can leverage by entering into further collaborations with other potential partners to pursue commercial opportunities with Qcide. While STK are focussed on the registration of Qcide, Bio-Gene can focus its financial resources on the registration of Flavocide™ with its existing commercial partners Clarke and Evergreen, as well as other potential partners currently working under MTA. In addition to the execution of the STK Term Sheet, the last quarter has seen some key value-adding advancements for the business that relate directly to our key strategic objectives aimed at registration of our Active Ingredients, establishing proprietary manufacturing knowhow, and working with strong partners to commercialise our technology. These advancements create great value and momentum as we begin 2023 and focus our direction for additional value-add activities over the coming months."

### **Commercial Development**

The Company has continued to advance its projects with existing partners Evergreen Garden Care and Clarke Mosquito Control. Pleasingly, our relationship with both companies continues to grow, and we are seeing the value of their expertise in our respective collaborations.

Excitingly, on 19 January, we announced a new partnership – with Israel-based STK. Founded 30 years ago, STK has operations and product registrations in more than 30 countries. STK applies advanced botanical science and bio-ag technology in the development and commercialisation of natural crop protection solutions for growers worldwide. Focused specifically on natural product development, STK has been evaluating our Qcide technology for over 12 months. The data produced from their studies gives STK the confidence to strengthen the collaboration with Bio-Gene and invest heavily in our technology. In return for non-exclusive access to our Qcide IP for the development of insecticides in the crop protection, aquaculture and professional turf and ornamental markets, STK will pay for the global registration of the Qcide Active Ingredient. This is a multimillion dollar investment covering registration enabling studies, registration fees and production facilities which has significant direct and flow-on benefits for Bio-Gene. Registering the Active Ingredient is an important step for any market application, and Bio-Gene can use this registration for collaborations not only in the markets covered by STK, but exclusively in other markets including public health, animal health and consumer products. Having this pathway to registration secured is of great benefit to commercial partners interested in developing products with Qcide.

STK will also develop additional production facilities for Qcide. This is very important for Bio-Gene, as we have always planned on the expansion of production facilities into other geographic areas to mitigate risk associated

with production (loss or damage due to fire, flood, drought etc) and the logistics of managing global supply. This is an additional investment by STK and a further endorsement of STK's confidence in our technology.

Together we will also explore the opportunity of Bio-Gene becoming the agent for STK's products in Australia and New Zealand. We have a lot of expertise and connections within our team, and as STK products are complementary to our technology this is a good fit to build on our technology platform, and to offer the potential for early revenue streams.

To date this is the biggest deal Bio-Gene has done with a commercial partner and paves the way for further commercial agreements in the future. Working together, Bio-Gene and STK can use their combined knowledge and expertise to leverage the opportunities for Qcide in a number of markets around the world.

### **Regulatory Development**

The collaboration with STK has a significant impact on our regulatory program. It is anticipated the positive financial impact for Bio-Gene directly relating to regulatory costs is many millions of dollars. The Company will work with STK directly on the Qcide registration program via a joint advisory committee, and the combined experience, resources and focus should allow for an accelerated registration process. Bio-Gene can now focus its financial resources on registering Flavocide in our key markets, with the added potential benefit from a "read across" of data where applicable information developed for the Qcide registration dossier can be used to support Flavocide registration, based on the similarities of the molecules. Working with our partners Evergreen, Clarke, and now STK, we have developed a strong understanding of the various regulatory strategies we will employ in different jurisdictions around the world.

### **Manufacturing Development**

Our Program Manager, Dr James Wade, presented an extensive update on progress with the manufacturing processes for Flavocide and Qcide. In the 14 December webinar (which is available on our website for viewing), James explained how the collaborations with key research organisations have delivered on important steps in our Flavocide manufacturing improvement program, that will not only deliver cost savings but create significant Intellectual Property which creates an advantage to Bio-Gene in global production of our molecules.

#### *Flavocide™*

Through the efforts of our extensive network of local and international research collaborators Bio-Gene has continued to achieve significant improvements to the overall manufacturing process that are now fully documented in the Standard Operating Procedures (SOP) for commercial scale manufacture of Flavocide. This has resulted in the following:

- Provision of a pathway to produce commercially viable quantities of product
- Streamlining of the process, making it easier for a toll manufacturer to adapt/implement
- Improved safety of the process
- Improved overall cost of manufacture
- Creation of important data on product specification for regulatory submissions

These improvements are extremely positive, as ultimately, they enable us to confirm a pathway and strategy which facilitates our ability to produce commercially viable quantities of product to our desired specifications and quality. These collaborations have significantly improved the confidence in the Cost of Goods reduction program, which in turn creates additional market opportunities for our molecules from a competitor-cost perspective.

With our process chemical manufacturing consultant, our Program Manager also recently visited India to undertake audits of a number of manufacturing facilities. India is now recognised as a global centre of excellence for the manufacture of pesticides and is within the top 10 of insecticide producing countries in the world. India-based manufacturers are considered as being exceptionally cost effective, having excellent facilities and with the ability to make products to the highest quality. The audits undertaken confirmed facilities to be world class and Bio-Gene has now shortlisted potential commercial manufacturers. We are now working through the final steps of our selection process to nominate a preferred toll manufacturer. We anticipate that the selected company will bring further expertise and experience to inform additional improvements to the production process and associated cost reduction targets.

### *Qcide™*

In November, we conducted our latest harvest of Qcide oil. To date, Bio-Gene has been able to achieve incremental and significant improvements in oil yield, while ensuring the oil remains within its target specification. Bio-Gene will continue to refine its processes, with the overall aim to scale up the production process to meet market demand. A tree improvement program has also been undertaken to select superior tree lines based on oil and tasmanone content and establish these in tissue culture to enable commercial production of seedlings, which will enable expansion of plantation areas to satisfy futures demand for Qcide oil.

Future plans are to continue to collaborate with James Cook University and other service organisations to expand production through scale-up of production facilities and associated processes aimed at high oil extraction rates and optimised operational efficiency.

Additional future work is also planned to undertake a GLP 5 batch analysis process on Qcide oil using oil produced under standardised extraction conditions. This is a key regulatory requirement to confirm the consistency of the process, and ultimately the specification of the Qcide oil that is derived from the biomass.

### **Intellectual Property**

In December, the Company received news of the granting of two patents from the African Regional Intellectual Property Organisation (ARIPO) Patent Office. The patent applications focused on Flavocide in combination with other chemistries, and control of resistant pests. The claims for the first patent relate to the control of resistant insect pests infesting an agricultural environment, and in particular grain storage pests. The second patent addresses the use of Flavocide in combination with other key insecticidal chemistry and has relevance to mosquito control which is particularly important for Africa. These patents will expire in 2038. These patent families are extremely valuable additions to our IP assets, as they provide protection across two very key commercial areas and challenges for insect control. Insect population resistance to existing chemistry is increasing globally, and the need to commercialise new Modes of Action is vital. In many cases, using combinations of chemistry will allow for on-going protection against the development of resistance for Bio-Gene's products, as well as the existing chemistry. Evidence from our studies also demonstrate synergy of Flavocide and Qcide when combined with other classes of chemistry, which creates exciting commercial opportunities to increase efficacy and cost effectiveness of treatments. Examination of additional patent applications is continuing by other patent offices in many countries around the world. The granting of these two patents adds to those already granted over the past 18 months in Australia and the USA and provides further confidence that the similar patent applications underway in other world areas will be successful.

As announced in the period, Bio-Gene submitted applications for "plant breeders rights" for several of our unique tree lines, which will aim to provide exclusive commercial rights for our Qcide oil producing trees. The rights are essentially a form of intellectual property (IP), like patents, trademarks and designs. These improved tree lines have

unique properties including plant morphology and oil chemical profile, and reflect the important attributes required for maximising production of Qcide oil in the field.

### Communications

We continue to build on our social media interactions with regular communications on company activities and global issues relevant to our business development activities. These and on-going updates can be found on our social media pages:

- LinkedIn: - <https://au.linkedin.com/company/bio-genetechnology>
- Twitter: - <https://twitter.com/biogenetechltd>

The Company will continue to focus on investor briefings and industry presentations over the course of the year.

### Cash Position

As at 31 December 2022, Bio-Gene held \$4.3 million in cash. On 20 January 2023, the Company announced it had received the R&D Tax Incentive from the Australian government of \$446,000 which is not included in the December 2022 cash balance.

Approved for release by the Board of Directors.

- ENDS -

### For further information, please contact:

#### Bio-Gene Technology Limited:

Richard Jagger  
Chief Executive Officer  
P: 03 9068 1062  
E: [bgt.info@bio-gene.com.au](mailto:bgt.info@bio-gene.com.au)

Roger McPherson  
CFO & Company Secretary  
P: 03 9068 1062  
E: [bgt.info@bio-gene.com.au](mailto:bgt.info@bio-gene.com.au)

#### Media/investor relations:

Rudi Michelson  
Monsoon Communications  
P: 03 9620 3333  
E: [rudim@monsoon.com.au](mailto:rudim@monsoon.com.au)

### About Bio-Gene Technology Limited

Bio-Gene is an Australian agtech company enabling the next generation of novel insecticides. Bio-Gene's novel platform technology is based on a naturally occurring class of chemicals known as beta-triketones.

Beta-triketone compounds have demonstrated insecticidal activity (e.g., kill or knock down insects) via a novel mode of action in testing performed to date. This platform may provide multiple potential new solutions for insecticide manufacturers in applications across crop protection and storage, public health, consumer applications and animal health. The Company's aim is to develop and commercialise a broad portfolio of targeted insect control and management solutions, working with industry leaders across key market segments.

**Flavocide™ and Qcide™** are trademarks of Bio-Gene Technology Limited.

## Appendix 4C

### Quarterly cash flow report for entities subject to Listing Rule 4.7B

**Name of entity**

Bio-Gene Technology Limited

**ABN**

32 071 735 950

**Quarter ended ("current quarter")**

31 December 2022

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date \$A'000</b>
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) research and development	(688)	(1,273)
(b) commercialisation expenses	(55)	(226)
(c) management administration expenses	(37)	(131)
(d) directors' expenses	(68)	(150)
(e) professional services	(6)	(31)
(f) intellectual property	(68)	(155)
(g) administration and corporate costs (see note 6)	(111)	(164)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	23	44
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (provide details if material)	-	-
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(1,010)</b>	<b>(2,086)</b>

<b>2.</b>	<b>Cash flows from investing activities</b>	-	-
2.1	Payments to acquire or for:		
	(a) entities		
	(b) businesses	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) intellectual property	-	-
	(f) other non-current assets	-	-
2.2	Proceeds from disposal of:	-	-
	(a) entities		
	(b) businesses	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) intellectual property	-	-
	(f) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>0</b>	<b>0</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (share proceeds received in advance)	-	-
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>0</b>	<b>0</b>

## Quarterly cash flow report for entities subject to Listing Rule 4.7B

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	5,266	6,342
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,010)	(2,086)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	-
4.5	Effect of movement in exchange rates on cash held	-	-
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>4,256</b>	<b>4,256</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	17	19
5.2	Call deposits	4,239	5,247
5.3	Bank overdrafts	-	-
5.4	Other (Term Deposits)	-	-
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>4,256</b>	<b>5,266</b>

<b>6.</b>	<b>Payments to related parties of the entity and their associates</b>	<b>Current quarter \$A'000</b>
6.1	Aggregate amount of payments to related parties and their associates included in item 1	205
6.2	Aggregate amount of payments to related parties and their associates included in item 2	N/A
<i>Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.</i>		

## Quarterly cash flow report for entities subject to Listing Rule 4.7B

<b>7. Financing facilities</b>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>		
7.1 Loan facilities	N/A	N/A
7.2 Credit standby arrangements	N/A	N/A
7.3 Other (please specify)	N/A	N/A
<b>7.4 Total financing facilities</b>	<b>N/A</b>	<b>N/A</b>
<b>7.5 Unused financing facilities available at quarter end</b>		<b>N/A</b>
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.	

<b>8. Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1 Net cash from / (used in) operating activities (item 1.9)	(1,010)
8.2 Cash and cash equivalents at quarter end (item 4.6)	4,256
8.3 Unused finance facilities available at quarter end (item 7.5)	-
<b>8.4 Total available funding (item 8.2 + item 8.3)</b>	<b>4,256</b>
<b>8.5 Estimated quarters of funding available (item 8.4 divided by item 8.1)</b>	<b>4</b>
<i>Note: if the entity has reported positive net operating cash flows in item 1.9, answer item 8.5 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.5.</i>	
8.6 If item 8.5 is less than 2 quarters, please provide answers to the following questions:	
8.6.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
Answer:	
8.6.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
Answer:	
8.6.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?	
Answer:	
<i>Note: where item 8.5 is less than 2 quarters, all of questions 8.6.1, 8.6.2 and 8.6.3 above must be answered.</i>	



## Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 31 January 2023

Authorised by: The Board of Directors  
(Name of body or officer authorising release – see note 4)

## Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.
6. Net movements in GST are included in this item.
7. Prior Quarter Corrections. Immaterial minor errors and reallocations of expenses from previous quarter reports are corrected on a year to date basis. Movements disclosed for the current quarter have been correctly calculated.