

## **Bio-Gene focuses product pipeline on crop protection, public health, and consumer opportunities**

### **Quarterly Activities Report and Appendix 4C**

#### **Q2 FY24 Highlights**

- **Major review of Bio-Gene product opportunities confirms focus on priority use patterns across crop protection, public health and consumer applications**
- **Bio-Gene commits to Flavocide® manufacturing program with large contract toll manufacturer to support regulatory programs and to meet future product demand**
- **Scale-up of Qcide® production continues to keep pace with expected demand from commercial collaborations**
- **Professor Catherine Hill shares insights into how Bio-Gene's novel insecticides will help solve global public health challenges from diseases spread by mosquitoes and ticks by overcoming insecticide resistance**
- **Bio-Gene appoints Mr Roger McPherson as interim Chief Financial Officer and Company Secretary**

Bio-Gene Technology Limited (Bio-Gene or the Company), an agtech company developing and commercialising the next generation of novel insecticides derived from nature, provides this update on activities for the quarter ended 31 December 2023 (Q2 FY2024) and to date, alongside the Company's Appendix 4C.

#### **Commenting on the Company's progress over Q2 FY24, CEO & Managing Director, Tim Grogan said:**

*"This quarter we have focused our pipeline on specific areas where Bio-Gene's products will have the greatest impact. The world is facing growing challenges of how crop yields can be optimised, how to limit mosquito-borne diseases, and crucially, how to address increasing levels of insecticide resistance. These challenges represent significant opportunities for Bio-Gene.*

*"Following a comprehensive commercial and technical strategic review, we identified eight clear priority product opportunities for Flavocide® and Qcide® in crop protection, public health and consumer applications.*

*"This targeted focus enables us, and our partners STK, Evergreen and Clarke, to take advantage of the market trend towards biological and botanically derived products as large agrochemical companies start to move away from using purely synthetic products.*

*"Professor Catherine Hill, a global expert on vector-borne diseases, shared her insights into the impact mosquitos and other vectors have on human health. Annual sales of mosquito insecticides used in public health applications is approximately US\$840 million per annum, with the global mosquito control market projected to grow 38% by 2026. Bio-Gene is well placed to take advantage of this market as our naturally-derived technology effectively controls pests with low toxicity to humans and the environment."*

**Bio-Gene Technology Limited**

ABN: 32 071 735 950

Level 6, 400 Collins Street, Melbourne, VIC 3000

### **Focussing on eight product pipeline opportunities**

During the quarter, Bio-Gene undertook a detailed strategic review of the company's extensive data base of product and market related information, and patent portfolio. Consideration of where to focus our resources and effort was based on key commercial and technical factors such as product efficacy, market size and location, existing commercial arrangements, the nature and scale of the unmet market need, IP coverage, product competitiveness, regulatory requirements, and time to market. The review identified eight initial product opportunities across crop protection, public health and consumer applications as high priority to bring Bio-Gene products to market.

- Crop protection: (1) grain protectant
- Public health: (2) outdoor space spray, (3) indoor barrier spray, (4) outdoor barrier spray, (5) indoor space spray
- Consumer applications: (6) indoor space spray, (7) outdoor barrier spray, (8) outdoor garden spray

Competitive assessment of Bio-Gene's product pipeline will be an ongoing process and attractive new opportunities may be added in future.

### **R&D projects**

**Flavocide scale-up program:** During the quarter Bio-Gene commenced working with a large contract manufacturer in India for the custom scale-up of Flavocide synthesis. The purpose of this work is to produce pilot-scale batches of GLP (Good Laboratory Practices) standard Flavocide for use in key toxicology and other studies. These are required to support the registration application for Flavocide in Australia and other jurisdictions. This scale-up program also adds to Bio-Gene's future capacity to supply high quality technical grade Flavocide to commercial partners on a cost competitive basis.

**Qcide production and tree improvement programs:** Bio-Gene has continued to invest in scaling both tree and oil production. Bio-Gene has renewed an agreement with James Cook University to provide engineering input into developing scalable processes and is working with commercial operators to support tree and seed production programs. The Development and License Agreement with STK and arrangements with other commercial partners provide the commercial basis to expand Qcide area and production.

**CDC program:** Work commenced on the US\$10 million US Center for Disease Control (CDC) funded vector control program targeting the tick vector of Lyme disease, a significant health challenge in the USA. Bio-Gene is working with Purdue University to test Flavocide and Qcide for tick control. Efficacy studies produced results that met USEPA standards, enabling the program to move to small cage and semi-field trials to further evaluate residual efficacy in real-life conditions.

### **Commercial partnership updates**

**STK:** Bio-Gene is working closely with STK's regulatory experts on the registration pathway for Qcide, with product testing and registration-related activities on-track. STK is undertaking an extensive testing program to develop a comprehensive data package to support registration of Qcide as an active ingredient in Australia, USA and other countries targeted for commercialisation for pest control in both crop and non-crop applications.

**Clarke:** Bio-Gene has recently expanded programs to develop formulations to optimise performance for mosquito control. This includes programs with specialist contract research organisations targeting the surface residual barrier spray application use pattern for mosquito control.

**Evergreen:** Bio-Gene's work with Evergreen Garden Care continues in Europe and Australia involving field testing of Bio-Gene products targeting home and garden pests. Potential new trials in Australia are being examined as part of the opportunity for consumer applications for both Flavocide and Qcide.

**Additional commercial opportunities:** Bio-Gene continues to engage significant global players to expand additional product opportunities for Bio-Gene's products. Over 2QFY24, these testing programs have progressed, positively expanding the potential pipeline for additional commercial development opportunities in both crop, non-crop and public health applications.

#### **Professor Catherine Hill webinar**

Professor Catherine Hill, Head of the Department of Entomology at Purdue University in the United States, participated in a webinar hosted by Bio-Gene where she shared insights on the global challenges relating to mosquitoes and ticks, the increasing resistance to current insecticides and the threat this poses to human health from diseases such as malaria and Lyme disease. Dr Hill highlighted the benefits of Bio-Gene's naturally derived insecticides with a novel mode of action to overcome insecticide resistance, and referenced the partnership between Bio-Gene and Purdue in evaluating Flavocide and Qcide against ticks as part of a national program funded by the US Centre for Disease Control targeting Lyme disease.

#### **Patent update**

During the quarter several patents relating to the use of Flavocide were granted, strengthening Bio-Gene's IP platform:

- Australia AU 2021232737 – Flavocide use against insects and arachnid pests when used in combination with another pesticide;
- New Zealand NZ 760403 – Flavocide use against resistant pests; and
- Japan JP 7374921 – Flavocide use against certain aphid species.

Bio-Gene remains committed to applying for patents and plant breeder's rights (for superior tree lines to support Qcide production) and building an extensive body of knowhow relating to the use, manufacture, registration and formulation of Flavocide and Qcide.

#### **Financial update**

As at 31 December 2023, Bio-Gene held \$3.12m in cash, a \$255k decrease over the quarter (30 September 2023 cash \$3.5m). The cash position this quarter was supported by a further \$549k received in respect of the successful \$2.0 million capital raise, with \$1.5m receipt received via the Placement in the first quarter. The additional \$400k raised as part of the Placement and the \$144.5k raised via the Share Purchase Plan were received in the current quarter.

Cash flows from operating activities was \$747k with funds being used on:

- R&D (\$423)k;
- Commercialisation expenses (\$82)k;
- Intellectual property expenses (\$64)k; and
- Administration and corporate costs (\$226)k, mainly insurance premiums.

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On 19 January 2024, the Company announced it had received the R&D Tax Incentive from the Australian government of \$504,000 which is not included in the December 2023 cash balance.

### **Management update**

In November, Mr Roger McPherson was appointed interim Chief Financial Officer and Company Secretary, replacing Mr Rodrigo Valencia.

### **Outlook**

The company has provided the base line which will enable cost effective and faster pre-registration manufacturing and safety studies into various formulations for Flavocide and Qcide. In addition, Bio-Gene will continue to develop the most commercially attractive products for partnered programs (both as stand-alone and combination products).

Approved for release by the Board of Directors

- ENDS -

### **For further information, please contact:**

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### **About Bio-Gene Technology Ltd**

Bio-Gene is an Australian agtech development company enabling the next generation of novel insecticides to address the global problems of insecticide resistance and toxicity. Its unique technology is based on a naturally occurring class of chemicals proven to overcome resistance to control pests with minimal impact on human health and the environment.

Bio-Gene's technology provides multiple potential new solutions for insecticide manufacturers in applications across crop protection, grain storage, public health and consumer products. Bio-Gene's is developing and commercialising a broad portfolio of targeted insect control and pest management solutions.

**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 2023

Consolidated statement of cash flows	Current quarter \$A'000	Year to date \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	22	22
1.2 Payments for		
(a) research and development	(423)	(874)
(b) commercialisation expenses	(82)	(206)
(c) management administration expenses	(47)	(135)
(d) directors' expenses	(53)	(111)
(e) professional services	(10)	(80)
(f) intellectual property	(64)	(192)
(g) administration and corporate costs (see note 6)	(118)	(214)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	28	45
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>(747)</b>	<b>(1,745)</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	(2)	(2)
	(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	-	4
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>(2)</b>	<b>2</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	549	2,034
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	(55)	(55)
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>494</b>	<b>1,979</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	3,482	2,991
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(747)	(1,745)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(2)	2
4.4	Net cash from / (used in) financing activities (item 3.10 above)	494	1,979
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>3,227</b>	<b>3,227</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	26	92
5.2	Call deposits	1,701	1,890
5.3	Bank overdrafts	-	-
5.4	Other (Term Deposits)	1,500	1,500
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>3,227</b>	<b>3,482</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	197
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)	(747)
8.2 Cash and cash equivalents at quarter end (item 4.6)	3,227
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>3,227</b>
<b>8.5 Estimated quarters of funding available (item 8.4 divided by item 8.1)</b>	<b>4.3</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: 29 January 2024

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.