BIO-GENE SIGNS COMMERCIAL DEALS, SEPTEMBER 2021 QUARTERLY UPDATE

- **Announcement of commercial deal with Evergreen Garden Care for consumer products**
- **Positive results from Clarke Phase 2 mosquito studies leads to signing of a binding term sheet to negotiate exclusive US development rights prior to Phase 3 testing**
- **Key IP protection allowed by US Patent Office extending patent coverage to 2038**
- **Additional material transfer agreements (MTAs) signed with significant global companies**
- **Further developments relating to the manufacturing processes of both Flavocide™ and Qcide™**
- **Additional efficacy data secured on a number of key target pests**
- **Continued progress in relation to key value generating milestones previously described at 2020 AGM**

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 30 September 2021 and to date.

Bio-Gene Chief Executive Officer and Managing Director, Richard Jagger said: "As we have stated in our recent quarterly updates our focus remains on the short and long term goals we outlined at the AGM last year. While timelines have been challenged due to impacts of COVID and the nature of dealing with external entities with multi-national operations, significant progress has been made during this last quarter, especially in our negotiations with commercial partners.

"In particular we are delighted to have announced two new commercial agreements. The first is the signing of a license and development agreement with Evergreen Garden Care, the leading home and garden care company outside of North America which was formerly known as Scotts International. In addition, we were able to complete the signing of a binding Option and Term sheet with Clarke Mosquito Control relating to professional mosquito control in the public health sector in the United States.

"The signing of these agreements has involved extensive evaluation by our partners as part of their diligence as well as detailed negotiation. The company is now very well placed to work with Evergreen and Clarke on developing products for their particular markets and growing the opportunities for Bio-Gene into the future. Our aim is to have the value of our technology recognised through a wide range of development partnerships across different market segments while maintaining control of the registered active molecules to deliver significant value and return to our shareholders which has been set in place with these first 2 arrangements. They also provide a positive structure for on-going discussions with other parties currently evaluating our technology under MTA .

"These deals validate our business model and strategy, which is focused on continuously adding value to our technology proposition via efficacy testing, registration data generation and on-going I.P. development. By identifying the major players in specific market segments, our aim was to develop key relationships with these companies, and work with them on testing our technology via MTA's and other development agreements that would ultimately lead to commercial partnerships with the industry's leading firms. Announcing these deals to the world is a significant validation step in our journey as a company."

Agreement with Evergreen Garden Care

This agreement relates to commercial applications of Flavocide and Qcide within the consumer market space, focusing on the European Union, the United Kingdom, Australia, and New Zealand. This agreement has arisen directly from studies conducted by Evergreen under MTA, hence the relationship between Evergreen and Bio-Gene

has not been disclosed until the recent announcement. These studies showed significant promise in the potential for our products in this market space, sparking Evergreen to take up an early commercial position to allow them to advance some initial applications whilst exploring additional applications to add to the agreement.

The initial applications relate to fly and mosquito evaporator products, as well as ant control. The agreement terms are based on these two applications alone and allow the two companies to identify and negotiate terms for additional applications within the consumer arena. Both parties expect that more applications will be identified to add to these early targets as further research unfolds. Any such extension will lead to further payments to Bio-Gene. We believe the confidence demonstrated by Evergreen to commit to a commercial agreement, as well as committing to significant investment in product evaluation and registration enabling studies provides meaningful validation of Bio-Gene's Intellectual Property.

The agreement sets out a licence fee and a number of milestones payable over the next few years based on key events. These payments are in the order of a high 6 figure sum, which will be surpassed by the significant investment that will be made by Evergreen on the refinement of formulations and registration of products for these applications, as well as further research and development to identify new applications.

Agreement with Clarke Mosquito Control

The company was also able to announce the signing of a binding Option and Term sheet with Clarke Mosquito Control. The agreement commits Clarke to paying Bio-Gene a low 6 figure sum for the opportunity to negotiate commercial terms at the completion of Phase 3 testing. The agreement grants Clarke a 12-month option to develop Bio-Gene technology for products to be used in the United States, across the field of professional public health control. The agreement comes on the back of the successful Phase 2 testing conducted by Clarke, where testing assessed the interaction of various components of potential formulations and identified lead prototypes that can now undergo further evaluation. The most recent study assessed the performance of those prototypes on three important species of mosquito: *Aedes aegypti, Culex quinquefasciatus and Anopheles quadrimaculatus.* The results have given both companies the confidence to proceed to field product development and testing. An important component of products in this application is the United States Environmental Protection Agency's (EPA's) requirements that all registered products achieve 90% efficacy at the label rates recommended for the products. Our results to date give us the expectation that our technology can be registered for such applications.

The field work will focus on (a) determining the **effective rate** of the current formulation in field operations against susceptible colony populations and (b) a comparison of **effective dose** in one or more pyrethroid resistant colony populations. It is expected that these studies will provide sufficient information to allow the terms of a commercial agreement to be determined.

For Bio-Gene, the additional field testing prior to finalising the commercial arrangements offers the opportunity to further invest in regulatory and efficacy studies on our pathway towards commercial products and enhance the value proposition for our technology. The costs of these studies will be borne by Clarke and represents significant investment into the preparation of products for the commercial market.

The introduction of products with a novel Mode of Action, such as Flavocide and Qcide, is critical for vector management to address populations of pests resistant to currently used chemistry and reduce the potential of increased insecticide resistance in the future. Products of natural origin are seen by the general public as favourable alternatives to many existing products which is a key consideration for mosquito abatement districts, municipalities, counties and states in assessing products for effective mosquito control.

Intellectual Property

We announced the allowance of a new patent in the United States based on US Patent Application 16/856984. This patent focuses the treatment of resistant pests, and in particular stored grain pests. This is a significant result, given the size of the U.S. market for many applications. It considerably strengthens our IP position and creates a strong negotiation position for our future commercial deals. The patent provides coverage until July 2038. We have a number of patent applications still under review around the world.

Material Transfer Agreements (MTAs)

Over the past quarter, Bio-Gene signed 3 new MTAs with globally significant companies to allow them to evaluate our products under strict guidelines. It is an important part of Bio-Gene's strategy to continue to foster new potential applications for our products and develop a pipeline of future commercial relationships that have the potential to lead to revenue generating programs. Whilst some of these MTAs may ultimately conflict with each other in a commercial sense (based on offering exclusivity to a partner for a particular application or geography), having multiple companies assessing the technology at any one time allows for more options and flexibility for Bio-Gene when it comes to creating on-going evaluation and commercial deals. Part of our role will be to manage any potential conflict of use/geography that may arise to ensure the best adoption of our technology. It is worth noting the significance of the companies we have been able to introduce our technology to over the past few years, which supports our understanding of the need for new technologies within the insecticide market, particularly those with natural origins and unique Modes of Action.

Development of Active Ingredient International Registration Package

Toxicity / registration enabling studies

Our review of the international requirements for registration in different geographies and for different applications has been completed, and we now have a very clear picture of the requirements for product registration for the different product applications we are exploring with testing partners. Importantly, we also know where there is cross-over of the data in relation to these applications, which helps us prioritise our workstream to be as efficient as possible. This information has been very important for our discussions with Evergreen and other potential commercial partners, as the on-going work plans for product development are realised. We have a clear path as to our next round of registration enabling studies, and plan to move forward with these beginning in the next quarter.

Manufacturing

Flavocide

Throughout this quarter, Bio-Gene implemented projects focused on improving the manufacturing process for Flavocide. These comprised production at pilot plant scale and investigations to improve the efficiency of the production process and reduce the cost of manufacture. Improvements identified in these key areas are important as they will enhance the cost competitiveness of Flavocide, with the potential to expand new market opportunities. Bio-Gene recognises the importance of this research and will continue to explore opportunities that can lead to further refinement and improvements in our production processes.

Qcide

The latest harvest of Qcide oil was completed in June of this year. Laboratory-based project work undertaken by James Cook University in the lead up to the harvest identified several key process criteria with potential to further improve on-site extraction of oil at scale from *Eucalyptus cloeziana* biomass. Modifications were implemented on-site and enabled a quantifiable improvement in oil yield to be achieved. This also facilitated the production of 5-batches of Qcide oil that demonstrated the consistent, safe and reproducible ability to manufacture Qcide at scale and to a standard specification. This is an essential part of the registration enabling dossier for this product. Additional improvements to the extraction process are planned prior to the next harvest in the first quarter of 2022, all aimed at improving the cost-competitiveness of Qcide products in target use patterns. Bio-Gene is also

continuing the collaboration with James Cook University to improve tree quality through tree selection that aims to enhance biomass production, oil content in biomass and the chemical profile of the oil.

Efficacy: Lead Product Development Areas

Long term stored grain product efficacy – working with BASF and GRDC

The 9-month Stage 3 study continues under field conditions, with the completion of the field component expected in November 2021. Grain samples will then be brought into the laboratory for testing against target species, adults and first offspring. This will allow for reporting during the 1st quarter of 2022.

Our testing collaborator QDAF have also conducted some efficacy studies for Lessor grain borer on commodities other than wheat, namely barley and maize. The studies confirmed 100% mortality of the resistant strain progeny, confirming the expected insecticidal activity on additional grains, which means Flavocide has the potential to be an effective protectant on a number of different types of grain – an important commercial element.

Efficacy: Internal Programs

Ongoing Research Program at Purdue University

We continue to conduct research with the team at Purdue University with the objective of identifying additional value add characteristics of our technology for mosquito control. Work is continuing on investigating the ability of our technology to interfere with the behaviour and feed of mosquitos and the potential spatial effects of our molecules from the vapour phase. This research is not stand alone studies but is an on-going program to map out the full potential of our molecules for mosquito control around the home and in general public health situations. Expanding from pure efficacy research to how the technology is best deployed helps us identify the most efficient and valuable ways to use our active ingredients. The interim results are valuable in our discussions with various commercial entities currently reviewing mosquito control opportunities with our technology.

Flying Insect Research at the University of Florida

The company has engaged with researchers at the University of Florida (UF) to test Qcide and Flavocide against resistant strains of flying insects, initially with houseflies. In the last quarterly update, we reported that Phase one testing with UF confirmed the activity of both Qcide and Flavocide against resistant strains showing a close alignment in their dose response curves between both the resistant and susceptible strains. Phase two study protocols have been established and are aimed at testing Flavocide and Qcide as synergists in combination with pyrethroiods/pyrethrins by topic dose response assays. We will complement this work with additional studies at another contract research organisation, whose studies aim to identify optimised combination treatments that are effective at reducing chemical rates – in particular against resistant insects. This work aims to provide relevant data for the consumer and professional pest control markets.

Other Pest Research in Europe

As previously reported, Bio-Gene is working with leading contract research organisations (CROs) to conduct a range of studies with our products which are designed to support and build upon previous internal studies, identify new market opportunities and to further our understanding of the technology. To date these studies have identified synergistic interaction of our chemistry when used in conjunction with some currently commercial products. These data are being used to support broader patent coverage.

Other studies underway with Flavocide and Qcide have delivered positive results that help us refine the immediate target options for our products on crop and other segment pests, which provide valuable data for our discussions with partners and to guide testing programs under new MTAs.

Company Presentations

During the Quarter, Bio-Gene's Peter May presented a paper co-authored with the company's Program Manager, Dr. James Wade, at the Mosquito Control Association of Australia Symposium. This virtual event was attended by a global audience, and the program included many prominent speakers from around the world. The paper and subsequent panel discussion, which highlighted Bio-Gene's technology and its potential to control resistant populations of mosquitos, was well received by the audience.

Our CEO presented at the 19th Australasian AgFood Conference, presented by Westpac and PAC Partners. The conference featured prominent Australian companies and business leaders and focused on sustainability in Agriculture.

Unfortunately, physical attendance at other conferences was not possible due to the on-going restrictions in related to COVID-19.

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 30 September 2021, Bio-Gene held $3.2 million in cash, which based on current plans, provides the Company with sufficient cash to operate beyond 12 months.

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

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

Media/investor relations:
Rudi Michelson
Monsoon Communications
P: 03 9620 3333
E: 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.

Appendix 4C

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

Name of entity

Bio-Gene Technology Limited

ABN	**Quarter ended ("current quarter")**
32 071 735 950	30 September 2021

Consolidated statement of cash flows		**Current quarter $A'000**	**Year to date $A'000**
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	20	20
1.2	Payments for		
	(a) research and development	(406)	(406)
	(b) commercialisation expenses	(114)	(114)
	(c) management administration expenses	(69)	(69)
	(d) directors' expenses	(55)	(55)
	(e) professional services	(32)	(32)
	(f) intellectual property	(59)	(59)
	(g) administration and corporate costs (see note 6)	(79)	(79)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	10	10
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)	-	-
1.9	**Net cash from / (used in) operating activities**	**(784)**	**(784)**

2.	**Cash flows from investing activities**		
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)		
2.6	**Net cash from / (used in) investing activities**	**-**	**-**

3.	**Cash flows from financing activities**		
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 (lease)	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	**Net cash from / (used in) financing activities**	**-**	**-**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	3,933	3,933
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(784)	(784)
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	-	-
4.6	**Cash and cash equivalents at end of period**	**3,149**	**3,149**

5.	**Reconciliation of cash and cash equivalents** at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	**Current quarter $A'000**	**Previous quarter $A'000**
5.1	Bank balances	16	10
5.2	Call deposits	3,133	3,923
5.3	Bank overdrafts	-	-
5.4	Other (Term Deposits)	-	-
5.5	**Cash and cash equivalents at end of quarter (should equal item 4.6 above)**	**3,149**	**3,933**

6.	**Payments to related parties of the entity and their associates**	**Current quarter $A'000**
6.1	Aggregate amount of payments to related parties and their associates included in item 1	310
6.2	Aggregate amount of payments to related parties and their associates included in item 2	N/A

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.

Note 6.1: Director's fees paid to Directors or their related entities which includes FY21 incentives for Executive Directors.

7.	**Financing facilities** *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.*	**Total facility amount at quarter end $A'000**	**Amount drawn at quarter end $A'000**
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
7.4	**Total financing facilities**	**N/A**	**N/A**

7.5	**Unused financing facilities available at quarter end**	**N/A**

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.

8.	**Estimated cash available for future operating activities**	**$A'000**
8.1	Net cash from / (used in) operating activities (item 1.9)	(784)
8.2	Cash and cash equivalents at quarter end (item 4.6)	3,149
8.3	Unused finance facilities available at quarter end (item 7.5)	-
8.4	Total available funding (item 8.2 + item 8.3)	**3,149**
8.5	**Estimated quarters of funding available (item 8.4 divided by item 8.1)**	4

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.

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:

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.

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: 28 October 2021

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.