#### 2 October 2024

#### **Investor Presentation**

Bio-Gene Technology Limited (ASX: BGT, 'Bio-Gene' or the 'Company'), an Australian company developing novel bio-insecticides to address the global challenges of insecticide resistance, is pleased to provide an updated non-confidential corporate presentation for shareholders and investors.

This presentation contains an overview of the Company's strategy, pipeline, product development path and recent milestones. It will be used in various upcoming investor and shareholder meetings.

Approved for release by the Board of Directors.

~ ENDS ~

#### For further information, please contact:

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#### About Bio-Gene Technology Limited

Bio-Gene is an Australian company developing novel bio-insecticides to address the global challenges of insecticide resistance. Its unique products are based on a naturally occurring class of compounds proven to overcome resistance to control pests with minimal impact on human health and the environment.

Bio-Gene's products have multiple applications across public health, crop protection, grain storage, and consumer use. They provide new options derived from nature to meet market demand for effective and safe pest management solutions.

Flavocide<sup>®</sup> and Qcide<sup>®</sup> are registered trademarks of Bio-Gene Technology Limited in Australia.

Bio-Gene Technology Limited | ASX: BGT



# Investor Presentation

Beveloping new insecticides derived from Bature to achieve high impact worldwide.

October 2024

only

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## Investment Highlights

Focused development of two new insecticides with strong commercial validation.

#### Two New Actives

USG

Late-stage development: two insecticidal compounds derived from nature with novel modes of action:

- » Flavocide® and Qcide® are derived from a unique sub-type of eucalypt
- » effectiveness against some major insect pests with resistance to standard products
- » Strong drivers are increasing the demand for safer and more environmentally friendly products

#### Large Target Markets

 Large Target Mark Crop Protection (in total addressable products<sup>1</sup>
 Focused Pipeline Pipeline of eight (f » Public Health - ve Crop Protection (incl. Grain Storage), Public Health, Consumer, Animal Health, total addressable markets of \$31B, as both stand-alone and combination

Pipeline of eight (formulated) product opportunities:

- » Public Health vectors for disease
- » Crop Protection, Aquaculture, Professional Turf and Ornamentals
- » Grain Storage Protection
- Consumer (home & garden)

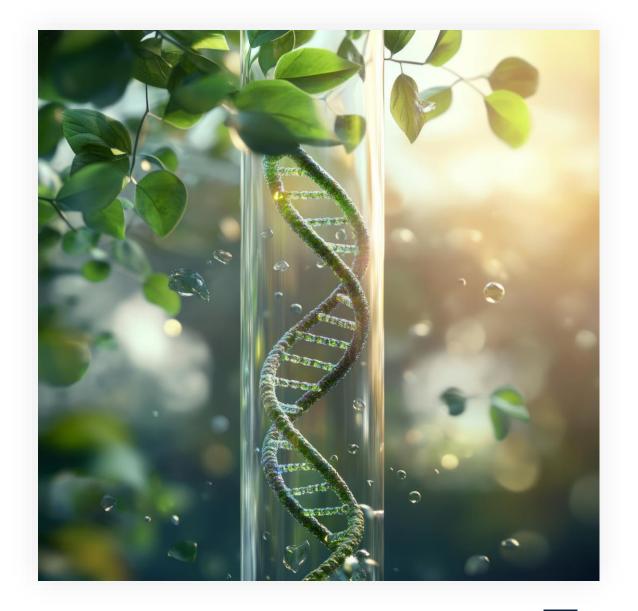
#### 04. Strong Partnering Progress

#### Three partnerships to date:

» Clarke Mosquito (US), Evergreen Garden Care (EU, UK, AU & NZ), STK (Israel)

US EPA 2017, WHO 2017, Zoetis & Provue Market Research, Markets & Markets

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Qcide® and Flavocide® are registered trademarks of Bio-Gene Technology Limited.
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#### Experienced Board of Directors & Management Team

A team with strong experience in product development, partnering and commercialisation.

Allens > < Linklaters L A N D E R * R O G E R S	syngenta E	MONSANTO starpharma Timerix	ASSA ABLOY Group
Chairman	Andrew Guthrie Non-Executive Director	<b>Tim Grogan</b> MD & CEO	Edmond Tern CFO & Company Secretary
Previously partner at two law firms and expert in M&A, capital markets, and general corporate law.	32 years' experience in agriculture globally, formerly a member of Syngenta's leadership team.	30 years' experience growing companies in the agtech, food and human health sectors.	30 years' experience as CFO and across both listed and unlisted companies.
STOR CONTRACTOR CONTRA	Incitec Pivot	EV GROUP Aviagen	MONSANTO
Chris Ramsey Non-Executive Director	<b>Peter May</b> Executive Director R&D	<b>Dr James Wade</b> Program Manager	<b>Richard Jagger</b> Commercial Advisor (Business Development)
Over 30 years' experience in agriculture business start up, development, marketing & agronomy.	Over 30 years' experience in crop protection market.	PhD with 10+ years experience in research in a broad range of agricultural verticals.	25+ years in agriculture.

### The Global Challenges We Help Solve

Our products address the demand for effective pest control & sustainable agriculture.



- Over 32,000 cases of Dengue recorded in Singapore in 2022<sup>4</sup>
- US Centers for Disease Control and Prevention

Global expansion and redistribution of Aedes-borne virus transmission risk with climate change, SJ. Ryan et. al
 World Malaria Report 2022

- 4. NEA Launches National Dengue Prevention Campaign Early To Urge Continued Vigilance And Avert A Dengue Outbreak In 2023
- 5. Savary, S., Willocquet, L., Pethybridge, S.J. et al. The global burden of pathogens and pests on major food crops. Nat Ecol Evol 3, 430–439 (2019)
- 6. The current and potential costs of invertebrate pests in grain crops', GRDC
- 7. 2024 CropLife magazine Biologicals online survey, The state of US crop biologicals in 2024 (agfundernews.com)



#### Pesticides are critical to farming

- » 20-40% of global food production lost to pests est. US\$2 trillion per year<sup>5</sup> and increasing - due to:
  - growing insect resistance to current insecticides
  - climate change
  - increased population pressures
- » The estimated annual losses for the six major Australian grain crops due to invertebrate pests is est. A\$360M<sup>6</sup>
- » CropLife's US survey found that 72% of respondents "are planning to increase the number of biological products their companies sell to grower-customers during the coming year"

## The Global Challenges We Help Solve

Meeting the increasing market demands for safe and effective pest control solutions and new modes of action.



A *diminishing pool of available products* for farmers and public health officials:

- » Insects' resistance to insecticides
- » Loss of approved registrations for traditional chemistries

Bio-Gene is developing two active ingredients, Qcide and Flavocide, *derived from nature* that control insect pests using *a novel mode of action*.



Bio-Gene's two new active compounds have *proven synergy* with some key insecticide groups, meaning the overall efficacy and safety profile may be improved and the patent life of these current products may be extended when combined with Qcide and Flavocide.





## **Our Unique Products Derived from Nature**

# **O**cide®

J

Qcide is an 100% natural oil extracted from the leaves of a specific cultivar of eucalypt (*Gypmie messmate*) currently farmed in northern Australia.

 $\checkmark$  12<sup>th</sup> harvest in QLD completed in 2024

## Flavocide®

Flavocide is based on flavesone, a naturally occurring plant Compound synthesised via a proprietary process that allows production in large volumes for global demand.

✓ Pilot-scale production completed at Rallis India Ltd

Patent families owned by Bio-Gene include: (1) Control of resistant pests.(2) Use in synergistic combinations, (3) Control of specific pests e.g., aphids, (4) Ovicidal activity against insect pests e.g., mites, bed bugs. Territories: Australia & New Zealand, USA/Europe, Latin America (Brazil), Asia (China), Africa (RSA)



## Flavocide & Qcide - Multiple Market Segments

Bio-Gene is targeting five large well-developed global markets

oniy	Sectors			(†)		( <del>(</del> <b>)</b> )
SG		Crop Protection	Grain Storage	Public Health	Consumer Applications	Animal Health
alu		Food & Fibre	Stored Grain	Vector Control for Malaria, Zika & Dengue	Urban Pest Management, Oils, Lotions & Personal Repellents	Livestock & Pet-care Products
LSON	Size (US\$) & % of \$31.1B	\$16.1B 52%	\$1.0B 3%	\$4.0B 13%	\$4.1B 13%	\$5.9B 19%
LOC DEC	Current Products & Challenges	EU import restrictions (e.g. Omethoate for red- legged earth mite in Canola) Secondary regulation imposed by food chain (Aldi) Consumer and regulatory pressures	Pyrethroids, phosphine, organophosphates, etc. High levels of resistance in lesser grain borer, flat grain beetle, rice weevil	e.g. Bifenthrin, deltamethrin, pyrethrins, etc. Mosquito control market projected to grow by 38% between 2021-26 <sup>1</sup>	Mineral oils, toxic synthetics (e.g. malathion), pyrethum based products etc. Home and garden uses, Shift towards safe (especially to children & pets) and eco-friendly products to protect the environment	Japanese Encephalitis outbreaks Prevalence of ticks Consumer concerns for pet health

1. Global Mosquito Control Professional Survey Report 2021, Forecast to 2026)

## Flavocide & Qcide - Multiple Market Segments

Bio-Gene is targeting five large well-developed global markets

	Active constituent	Descri	ption	Sectors	Target uses	Partners & Collaborators
- כ ט		1	Grain Protectant	Crop protection	Admixture to grain	GRDC GRINS RESEARCH & DEVELOPMENT CORPORATION
)		2	Outdoor Space Spray	Public health	Flying insects	Сиске
5	Flavocide	3	Indoor Barrier Spray	Public health	Flying & crawling insects	
Flavocide	4	Outdoor Barrier Spray	Public health	Flying & crawling insects	Clarke	
	5	Indoor Space Spray	Consumer	Flying insects	EVERGREEN Garden Care	
_		6	Indoor Space Spray	Consumer	Flying insects	
Qcide	7	Outdoor Barrier Spray	Consumer	Flying insects		
	8	Outdoor Garden Spray	Crop protection & Consumer	Fruit & vegetables, ornamentals	<b>EVERGREEN</b> Garden Care	

BGT is also investigating other potential use patterns, product extensions and combinations with other active ingredients.

www.bio-gene.com.au

## Flavocide Development Path

Regulatory approval of a formulated product is a two-step process.

	Commerci	al Partner Agreements			
0	Regula	tory Development			Launch (market)
Manufacturing process imp	provements and scale-up				
#1. Flavocide Al: data and reg	gulatory dossier	1st dossier evaluation by Af			
Formulation development					
GG GG	#2. Formulated end u	se product: data and regu	latory dossier 🗴	2nd dossier evaluation by APVMA	*
2024	2025	2026	2	2027	2028
	Est. Decem	ber 2025	Est. April-June 2027	Est. 6 – 9 months based on current estimates.	
* Timeline based on current estimates.	1. Active consti dossier submis		2. Active constituent approval		. End use t approval (est.)
Key inflection milestones that will gene revenue and interest from commercial	rate increased partners		3. Produ submissic		
www.bio-gene.com.au					11

## Multiple Commercial Partnerships in Place

Bio-Gene has established commercial partnerships with global partners, with additional commercial partners in progress.

bio-ag technologies	CIORKE	EVERGREEN Garden Care
Applies advanced botanical science to the development & commercialisation of natural crop protection for growers worldwide	Clarke is the largest vertically integrated company in public health mosquito control in the US	Evergreen is a market leader in consumer products across Europe and in Australia/New Zealand
Develop, register and commercialise Qcide for crop protection	Develop, register and commercialise Flavocide for public health and residential mosquito control in US and Cayman Islands	Develops and registers products for consumer applications across Europe, UK, Australia and NZ
<ul> <li>Revenue Model</li> <li>Active ingredient supply to STK</li> <li>On-going royalties on end-use product sales with other commercial partners</li> </ul>	<ul> <li>Revenue Model</li> <li>» Up-front license fee</li> <li>» Milestone payments prior to registration</li> <li>» On-going royalties on end-use product sales</li> <li>» Commercial supply of Flavocide active ingredient to Clarke</li> <li>» Formulated product development costs borne by Clarke</li> </ul>	<ul> <li>Revenue Model</li> <li>» Up-front license fee</li> <li>» Milestone payments prior to registration</li> <li>» On-going royalties on end-use product sales</li> <li>» Commercial supply of Flavocide active ingredient</li> <li>» Formulated product development costs borne by Evergreen</li> </ul>



## Key Collaborations Snapshot

R&D partnerships advance development and registration of Qcide and Flavocide.

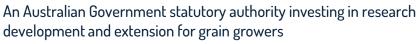


Envu was founded in 2022 from Bayer's environmental science division. Envu's product pipeline focuses on novel, safe and environmentallyfriendly insecticides

» Evaluating Flavocide as a commercial insecticide for use in mosquito control products

Runs an internationally recognised research program focused on new, human safe insecticides for control of insects and ticks

» Flavocide included in major US CDC US\$10m funded program on tick-borne diseases.



» Supports Bio-Gene to develop and register Flavocide for use in grain storage.



#### Australia's national science agency

» Assisting to develop and optimise the method of producing Flavocide.



## Capital Structure

Key metrics (26 September 2	024)
ASX code	BGT
Share price	\$0.045
Market Capitalisation	~A\$9m
Shares on issue	201,361,570
Cash (30 June 2024)	A\$2.21m



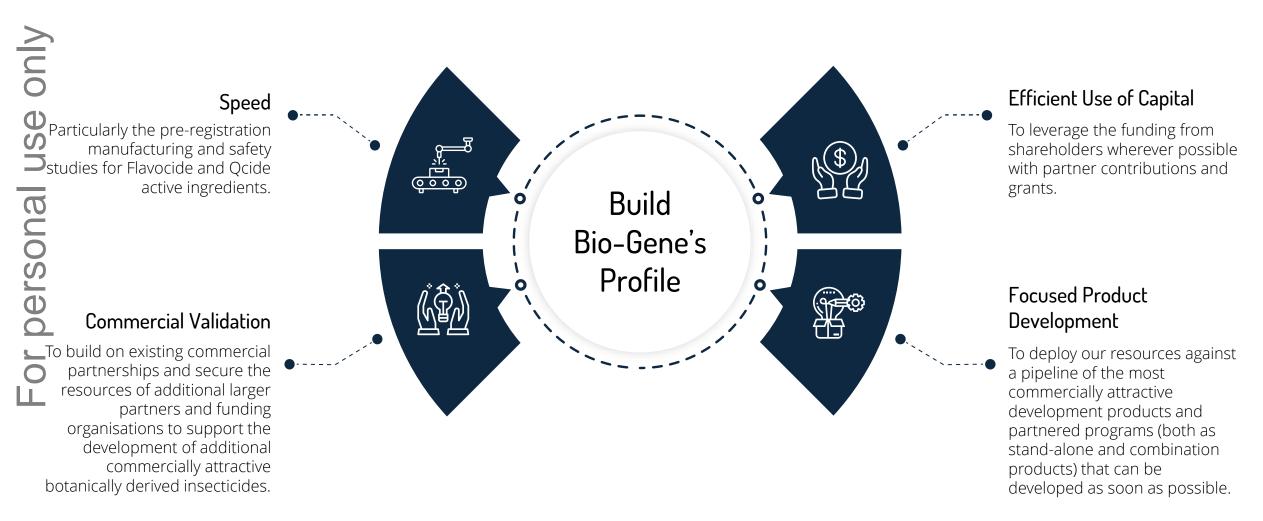


## Recent Milestones & News flow

8 August 2024	14 August 2024	2 September 2024
Study plans for Flavocide on track following APVMA feedback	Envu collaboration to evaluate Flavocide for mosquito management	Flavocide production successful at pre-commercial scale
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### **Bio-Gene's Strategic Priorities**

Strategy is focused on efficient development and approval of Flavocide and Qcide, with more commercial partnerships.



## Key Forward Milestones & News Flow

Bio-Gene has many catalysts to drive value over the next 18 months, with a strong pipeline of near-term news flow.

	02	03
Flavocide & Qcide development	Partnering & commercial	Funding & other support
<ul> <li>Flavocide regulatory studies (multiple)</li> <li>Submission of Flavocide regulatory dossier in Australia</li> <li>Flavocide scale-up milestones</li> <li>Qcide regulatory development milestones</li> <li>Qcide scale-up and harvest/processing progress</li> <li>Regulatory milestones</li> </ul>	<ul> <li>New commercial partnerships         <ul> <li>Crop &amp; grain storage</li> <li>Vector control</li> <li>Consumer uses</li> </ul> </li> <ul> <li>Expansion of current licenses</li> <li>Receipt of milestone payments</li> <li>Patents granted</li> </ul> </ul>	<ul> <li>✓ Grant funding successes</li> <li>✓ Synergistic program/product opportunities</li> <li>✓ International funding support &amp; validation</li> </ul>



#### Investment highlights

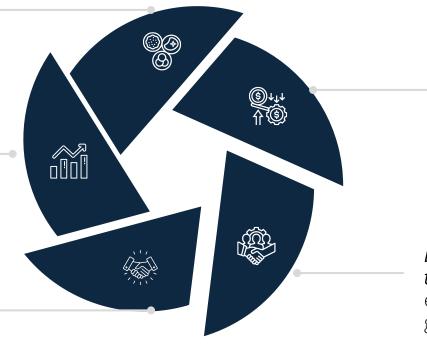
Bio-Gene is targeting five large well-developed global markets

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Bio-Gene is developing *two naturally derived* insecticidal active ingredients, overcoming resistance by controlling pests via a *novel mode of action* 

Substantial market opportunity with growing need, given resistance, for novel solutions

> Strong third-party validation with current partnerships and development partners



*High margin business model* with significant operating leverage

*Experienced management team and board* focused on execution of strategy and generating returns

Managing Director & CEO

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For