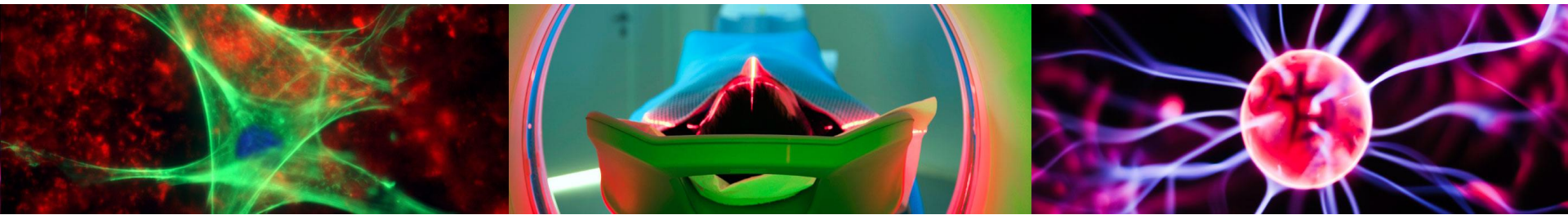




A new company with:

a new technology platform for cancer drug development
a new management team
a new Board



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In particular, Novogen:

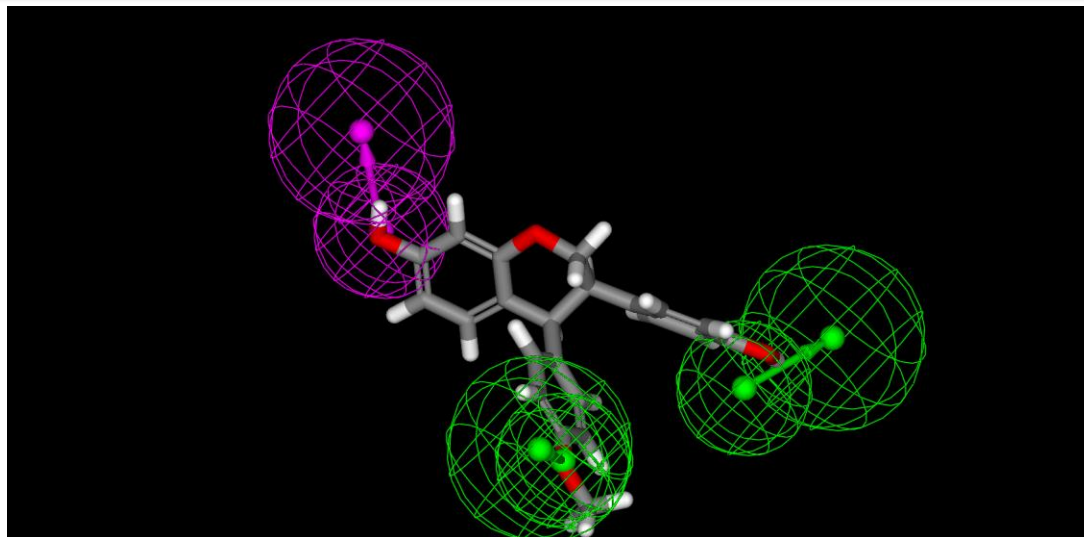
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Company history/Triaxial merger

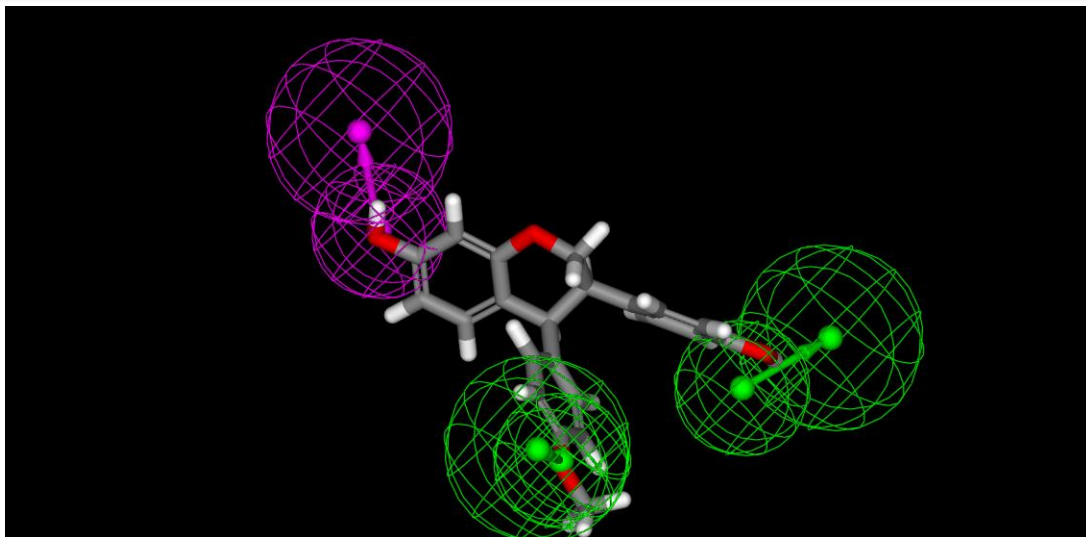


- 1994 Novogen Ltd ASX Consumer health products
- 1998 NASDAQ
- 1998 Broad drug technologies (oncology, cardiovascular, inflammatory)
- 2001 Oncology → Marshall Edwards Inc (MEI) NASDAQ
- 2007 (GK leaves Company)
- 2009 Decision taken to focus all resources into MEI. Progressive sell-down of other assets.
- 2011 MEI → MEI Pharma Novogen owns 60%
- 2012 (Nov) Novogen divests itself of MEIP (in specie distribution)
- 2012 (Dec) Novogen acquires Triaxial Pharmaceuticals.



- Simple benzopyran molecules
- Unique anti-cancer action
 - pan cancer effect
 - tumour-specific
 - unaffected by multi-drug resistance mechanisms
 - restore chemo-sensitivity
 - modest anti-cancer stem cell activity
- 4 lead drug candidates
- Tested in > 800 patients
- Evidence of efficacy in late-stage chemo-refractory prostate and ovarian cancers

Gen 2 technology platform



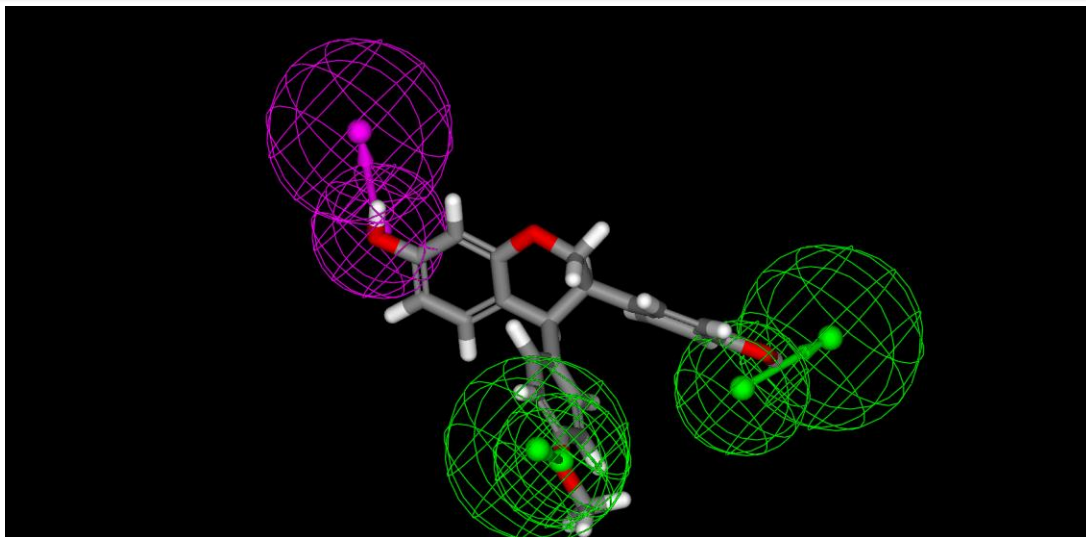
Need to:

- increase bio-availability
- increase potency against both cancer cells and cancer stem cells
- improve manufacturing efficiencies.

Challenge:

- new technology required to create a new family of more complex benzopyrans
- need to overcome design and manufacturing limitations.

Gen 2 technology platform

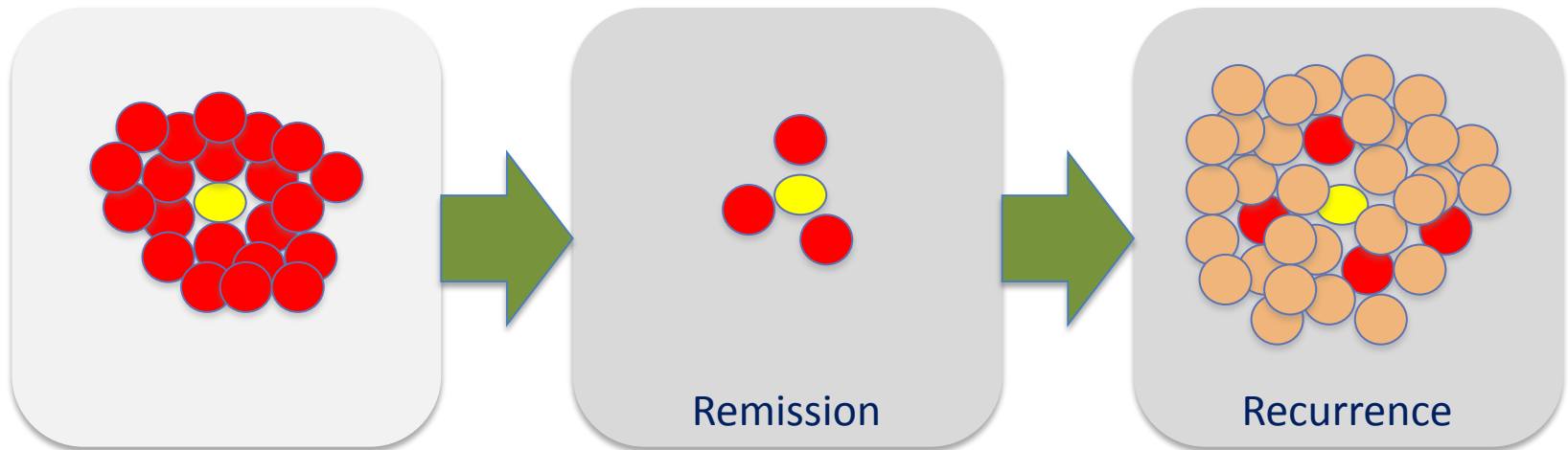


- *Manufacturing and design breakthrough* ➡ larger, more complex molecules
SUPER-BENZOPYRANS
- *Change in electrical field charges* ➡ increased bio-availability
- *Substantial increase in potency* ➡ both cancer stem cells and daughter cancer cells

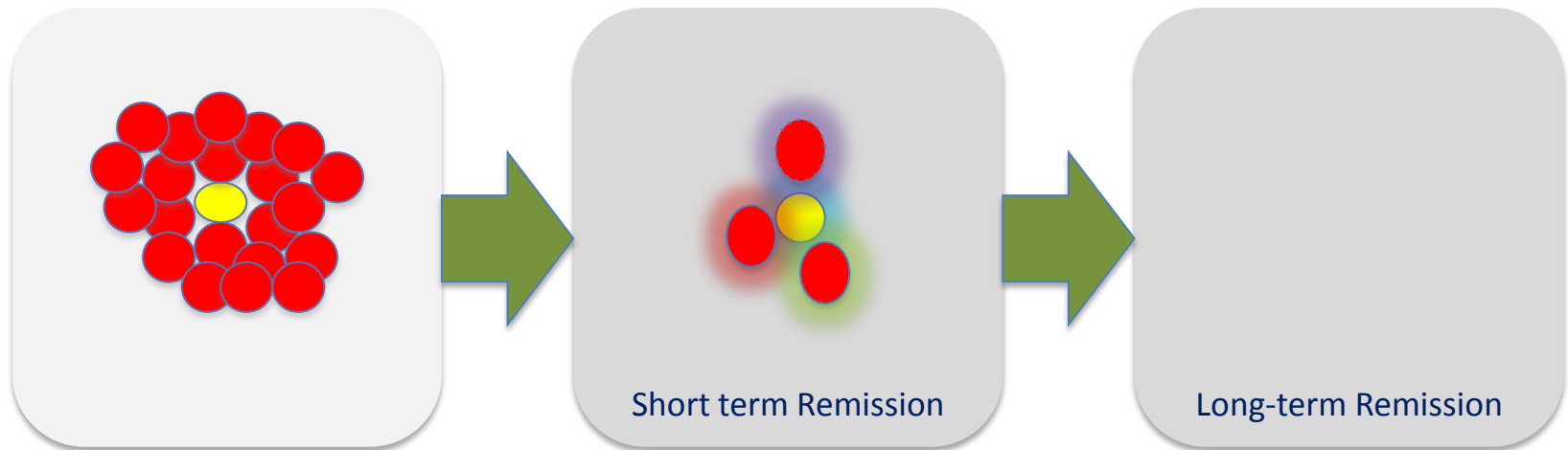


COMPREHENSIVE ANTI-CANCER THERAPY

Conventional cancer therapy



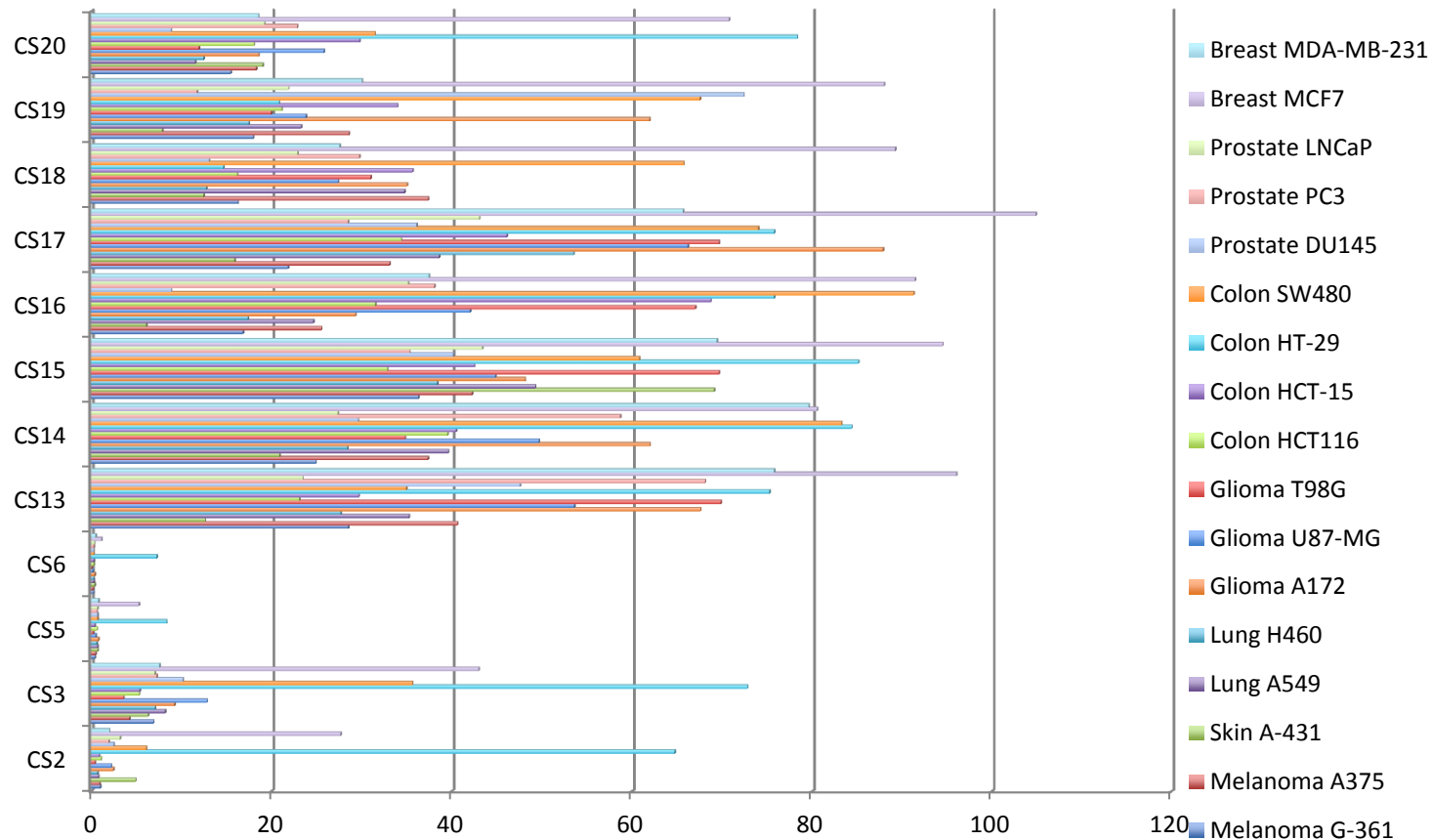
- Almost all forms of human cancer are thought to comprise a majority of standard cancer cells (**red**) and a small (<0.01%) minority of cancer progenitor cells known as cancer stem cells (**yellow**).
- With some notable exceptions (e.g. melanoma, mesothelioma, glioblastoma), the bulk of standard cancer cells in a tumour have a reasonably high degree of sensitivity to radiation or chemotoxic drugs, typically leading to shrinkage of the tumour ('REMISSION').
- Cancer stem cells (yellow), however, are almost completely insensitive to radiotherapy and chemotherapy and remain unaffected by anti-cancer therapy.
- In time, the cancer stem cells reproduce to create a new tumour, this time populated by cancer cells (**brown**) inheriting the radio-resistance and chemo-resistance of the cancer stem cells ('RECURRENCE').
- The RECURRENT cancer typically is more aggressive and now resistant to all standard anti-cancer drugs.



- Comprehensive anti-cancer therapy refers to the ability to kill both standard cancer cells and cancer stem cells with first-line therapy, in this way avoiding the regeneration of cancer cell populations with high-level multi-drug resistance mechanisms.
- It is 'comprehensive' as it aims to provide long-term remission of cancer through effective removal of the source of the cancer, not just dealing with the cells that come from that source.

Standard cancer cell killing

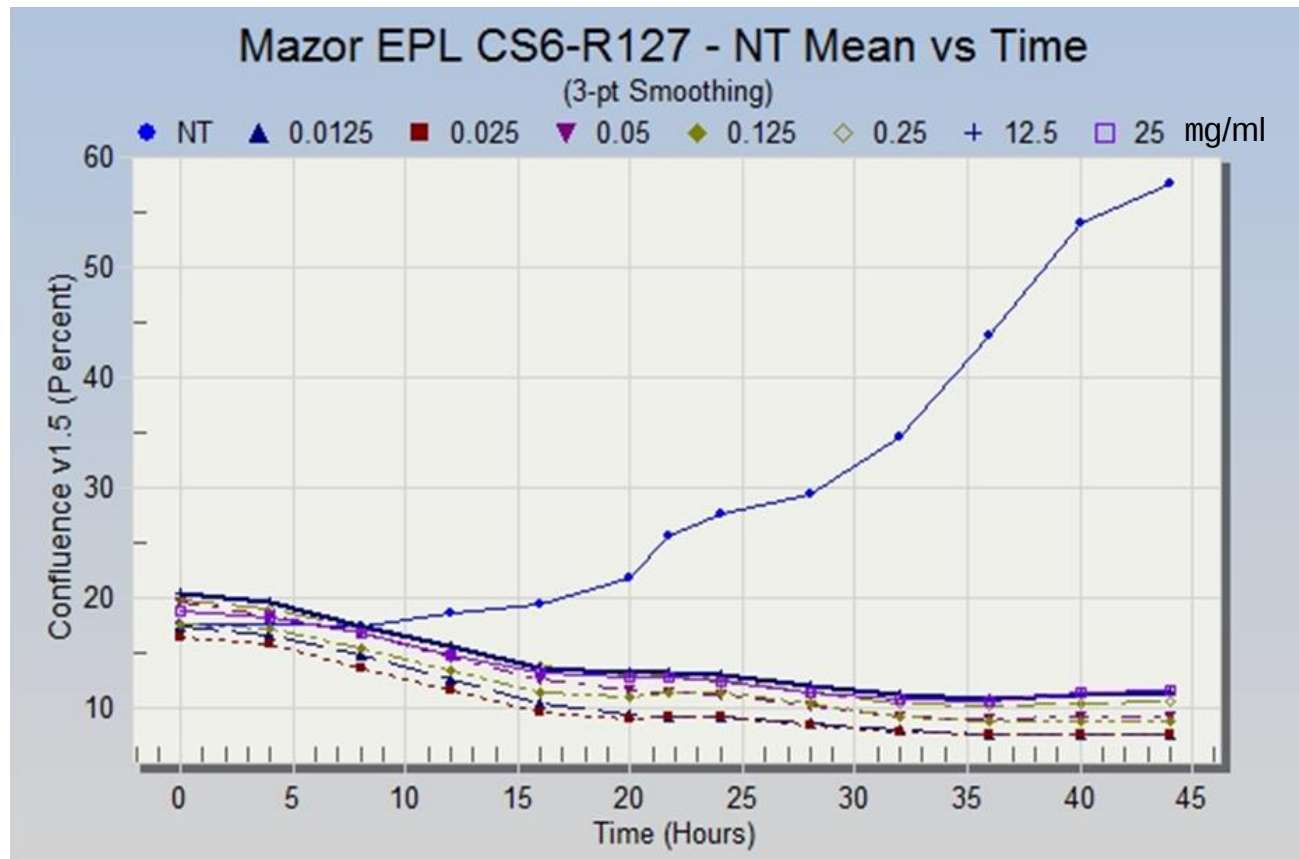
- Ability of first library of super-benzopyran drugs to kill standard cancer cells of different cancer types. CS-5 and -6 highly active; CS-2 and -3 less active and typical of earlier Novogen benzopyran drugs; CS-13-20 unacceptably low activity.



In vitro cytotoxicity of super-benzopyran analogs against cancer cell lines

Active against cancer stem cells

- CS-6 is highly active against ovarian cancer stem cell line. Note that the anti-cancer effect starts at 4 hours and occurs at very low dose rates (2 nanomolar), indicating a highly efficient anti-cancer effect.



Inhibitory effect of CS-6 on the growth of the R127 ovarian cancer stem cell line.

Cancer therapy snapshots

Drug	Area	Benefit	Market Size
	Herceptin	HER2+ breast cancer 20-25% all cases; Phase 4 only) (\$50,000 p.a. treatment cost)	Increase from 20.3 vs 25.1 months survival \$6.4b pa
	Gleevac	Chronic myeloid leukaemia (\$50,000 p.a. treatment cost) 4500 cases USA	Extended survival \$4.7b pa
	Taxotere	Late-stage prostate cancer	increase from 12.7 vs 15.3 months survival \$3.1b pa
	CS-6	Comprehensive cancer therapy	Long-term remission ????

Company Strategy: To develop the first **comprehensive** cancer therapy capable of killing both standard tumour cells and cancer stem cells

- CS-6 is Novogen's first *super-benzopyran* drug candidate. CS-6 is:
 - highly active in the laboratory against all forms of human cancer so far tested;
 - most active against glioblastoma multiforme cells (main form of brain cancer); and
 - highly active against (ovarian) cancer stem cells (nanomolar levels).
- Novogen aims to bring CS-6 to market as a treatment for late-stage brain cancer and late-stage ovarian cancer.
- Ability to destroy both cancer stem cells and their chemo-resistant daughter cells is a game changer as no other drug (currently approved or in development) knocks out both the highly resistant cancer stem cells and their daughter cancer cells in a selective manner with acceptable side-effects.

Company structure



Market Metrics	
Securities code	NRT (ASX) and NVGN (NASDAQ)
Securities on issue	117,405,676
Unlisted options	2,007,216
Share price ¹	\$0.165
6 months high	\$0.475
Market cap	~\$21 million
Cash	~\$1 million
Number of Security holders	ASX: 3,400 NASDAQ: 5,500 (est.)
Major Security holders	- Mr Josiah Austin (Director) – 19% - Oppenheimer Funds (Global Funds) – 11%

¹ As at 20 March 2013

² Price of ASX listed securities

Board of Directors	
Chairman and CEO	<i>Graham Kelly</i>
Executive Director and Chief Scientific Officer	<i>Andrew Heaton</i>
Non-Executive Director	<i>Stephen Coffey</i>
Non-Executive Director	<i>Robert Birch</i>
Non-Executive Director	<i>John O'Connor</i>
Non-Executive Director	<i>Josiah Austin</i>



Development milestones

Fundamentals

- ☒ Design and make super-benzopyran molecules
- ☒ Achieve manufacturing process producing clean product
- ☒ Design analogs with potent anti-cancer activity
- ☒ Design analogs with enhanced bio-availability
- ☒ Design analogs with potent anti-cancer stem cell activity

Pre-Clinical

- ☐ Confirm acceptable half-life of drug
- ☐ Confirm ability to inhibit tumour xenograft growth
- ☐ Determine chemo-sensitising ability
- ☐ Define toxicology
- ☐ Manufacture batch for clinical use

Clinical

- ☐ Phase 1a Study
- ☐ Phase 1b Study

Funding

- Novogen is currently seeking to raise up to \$10 million to fund a 3 year development plan.
- The purpose of the capital raising is to enable Novogen to:
 - Take CS-6 through its pre-clinical program and into Phase 1a and Phase 1b clinical studies in patients with glioblastoma multiforme;
 - Generate the data to enable the Novogen to apply to the FDA for IND status and Breakthrough Therapy Designation;
 - Investigate the potential clinical application of CS-6 in early- and late-stage ovarian cancer;
 - Continue with an analog program with the objective of identifying an additional 2 lead drug candidate to be taken through a pre-clinical drug program; and
 - Working capital.

Use of funds (3 year program)

Corporate costs	\$3.0 million (approx.)
Pre-clinical drug program – 3 drugs	\$4.0 million
CS-6 – Phase 1 (glioma)	\$1.5 million
CS-6 – Phase 1 (ovarian)	\$1.5 million
Total	\$10.0 million

Contact details

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