

US market responds

Shareholder Meetings in the US

During May, Novogen offered its US shareholders the opportunity to attend one of a number of Company presentations by CEO Christopher Naughton, and Research Director Professor Alan Husband. This was the first time that the Company had been able to identify the location of most of the 3,000 shareholders who hold stock through the American Depository Receipt (ADR) program on the NASDAQ. The US shareholding in Novogen continues to increase with over 1% of the Company being transferred from the Australian Stock Exchange (ASX) shares to NASDAQ ADRs each month. At the end of May 2003, 26% of the Company's shares were held in ADRs, along with a continuing and significant US holding direct in the ASX shares.

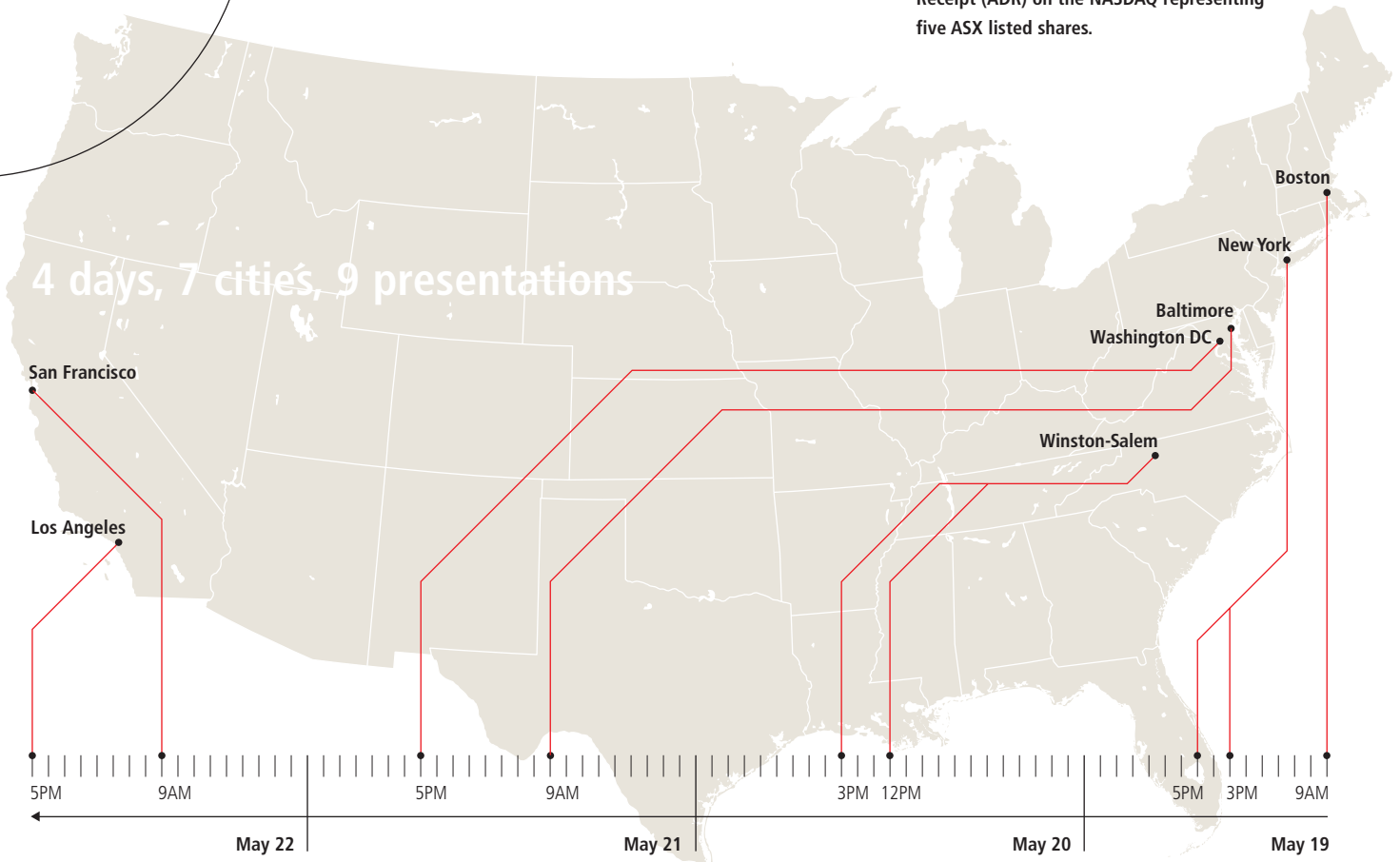
Seven cities in the US were visited, and the questions and feedback from shareholders at all presentations indicated support for the opportunity to hear about the Company first hand and to discuss progress directly with the management.

All shareholders can see the presentation on the Novogen web site at www.novogen.com, and Australian shareholders will be able to further discuss Company progress at the Annual General Meeting in Sydney in October. Shareholder presentations are also scheduled for Brisbane and Melbourne around the time of that meeting. □

Novogen is currently listed on the ASX and the NASDAQ with each American Depository Receipt (ADR) on the NASDAQ representing five ASX listed shares.

26% of Novogen held on NASDAQ

4 days, 7 cities, 9 presentations





US Patent #6,562,380

Consumer Products

Novogen's Worldwide Consumer Product division has staffed offices in Australia, Canada, The Netherlands, United Kingdom and the United States. Our international selling and distribution agencies include the countries of Austria, Ireland, Singapore and South Africa. Investment continues in expanding the territories and in finalising the new products under development, however the primary objective of the business is to become profitable.

Accordingly, marketing expenses in existing areas have been rationalised and the path to profitability is clearly defined. We expect this global business to be profitable during the next financial year when the appropriate balance between marketing inputs and sales results has been confirmed. At that point the benefits and synergies of having this exciting business with its global reach will become highly tangible. Future consumer business profits will augment our expenditure on drug research and development.

The half-year to May has seen significant impacts upon the world's hormone replacement therapy (HRT) market with the prescription HRT drugs subject to the release of continuing adverse findings. The international implications are still being felt and the 'menopause' market remains in a state of reorientation. Novogen's products Promensil and Rimostil are the natural alternatives and stand to benefit from the inevitable acceptance of non-HRT natural products.

Novogen's natural alternatives stand to benefit from HRT's recent adverse findings

Many patients and doctors however have become weary of the continual publicity and conflicting 'professional' opinions about HRT and the entire menopause area is suffering from a level of disorientation. In this changing environment, Novogen is offering stability with the most clinically trialed natural alternatives in the menopause and post-menopause market.

In Australia there has been an equally disturbing industry event which was the mass recall of many products produced by a company under investigation for unsatisfactory quality standards. Novogen and its products are not involved or directly effected but general consumers have been left yet again in a publicity heightened but information deficient zone.

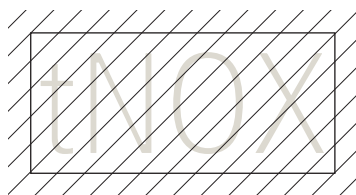
These industry events will have an impact but we are well placed to seize the advantage over the next twelve months as we increase our market visibility in a cautiously readjusting market place.

The strengthening Australian dollar exchange rate against most major currencies during 2003 will be reflected in the way the revenues of the business are reported, as approximately 75% of Consumer Product revenues are generated off-shore.

Menopause patent granted in the US.

The Novogen consumer products Trinovin Promensil and Rimostil have been offered around the world in a competitive market and have relied on their superior efficacy and clinical data to support their use. It is most unusual for consumer products to have patent cover, but in May 2003 Novogen was granted patent cover in the US for the use of isoflavones (the active ingredient in the Company products) for menopausal symptoms which is the primary claim for Promensil. This excellent news will enable the Company to offer licenses to other companies who seek to market and sell red-clover isoflavones. This patent grant will also assist the US licensee The Solae Company (majority owned by the DuPont Corporation) to whom Novogen has licenced the soy isoflavones included in the 'menopause' patent. The DuPont group has paid a number of milestones fees to Novogen for access to this patent and other consumer product patent applications that are in various stages of consideration in patent offices around the world.

In early June 2003, The Solae Company sought court orders that certain other companies stop selling and making the products claimed to infringe the patents and is seeking damages. The inclusion of Novogen's recently granted US patent in this action by Solae confirms the commercial utility of Novogen's expanding intellectual property portfolio. □



Phenoxodiol

Anti-cancer drug program

CNOX

Novogen's synthetic drug development program based on its isoflavonoid technology platform is underpinning the Company's strategy of producing a suite of anti-cancer drugs, offering treatment across a broad range of human cancers. This is a distinctive approach to anti-cancer drug development that is only possible because of the unique nature of anti-cancer action of molecules based on an isoflavonoid ring structure.

By varying the shape of the isoflavonoid molecule, Novogen scientists are able to vary the specific activity of the drug against certain types of cancer.

The value of this intellectual property cannot be over-emphasised. It offers a unique insight into the link between the shape of a particular molecule and its ability to kill certain types of cancer cells.

The lead drug in this suite of compounds is phenoxodiol, which Novogen has licensed to its subsidiary, Marshall Edwards Inc. (MEI). MEI is 95% owned by Novogen.

The other members of this family of anti-cancer drugs have entered the pre-clinical testing phase and are showing highly effective activity in the laboratory against specific cancers such as breast cancer pancreatic cancer, lung cancer, and leukaemia.

Phenoxodiol currently is being evaluated in phase II clinical trials for the treatment of prostate cancer, ovarian cancer, and squamous cell carcinomas (SCC). SCC refers to a type of cancer that occurs in the skin and mucous membranes of the body and is the major form of malignancy affecting the skin, mouth, tongue, throat, cervix and bladder. Renal (kidney) cancer and breast cancer also are under consideration as potential clinical targets.

The selection of this particular group of tumour types is based on clinical observations of responses in the phase I clinical trial program and pre-clinical results. A likely scientific rationale for this particular grouping of cancers is their common dependence for survival on their ability to shut-down the action of the Fas death receptor mechanism, a mechanism re-activated by phenoxodiol.

A feature of all of these different forms of cancer being targeted by phenoxodiol is their aggressiveness and generally low sensitivity to standard chemotoxic drugs.

A major recent development is the identification by a US university research team of a molecular target of phenoxodiol. This action provides an explanation for the unique multiple anti-cancer actions of phenoxodiol within the cancer cell, with little or no effect on normal cells. This target is a member of the ECTO-NOX family of proteins.

Phenoxodiol and ovarian cancer

A phase II clinical study is current at Yale-New Haven Hospital in the US. There will be 40 patients with advanced, metastatic ovarian cancer that has become unresponsive to at least 2 standard chemotherapies (the average number of different drug regimes used previously in these patients is 5 per patient). Phenoxodiol is being administered as a monotherapy by intravenous injection in rising dosages (1, 3, 10 and 20 mg/kg/24-hr) to four groups, each of ten women, over treatment cycles of 12 weeks. The study currently is in the third dose stratum. No drug-associated toxicity has been encountered to date, and tumour response is being assessed on the basis of tumour mass, levels of the tumour marker (CA125) in the blood, survival over 12 months, and quality of life.

This clinical trial is based on laboratory studies at Yale University that showed phenoxodiol to be the most effective drug at killing ovarian cancer cells, including those that are resistant to all standard anti-cancer drugs.

A recent study also extended these laboratory findings by showing that phenoxodiol proved highly effective at restoring ovarian cancer cells' sensitivity to standard anti-cancer drugs such as cisplatin. Cisplatin is a standard drug used in the treatment of ovarian cancer, but patients' tumours commonly become resistant to this drug after some months. A combination of phenoxodiol and cisplatin proved highly effective in stopping tumour growth with a dose of cisplatin that alone would have been completely ineffective.

Phenoxodiol and prostate cancer

A study is current at two Australian hospitals testing the effect of oral phenoxodiol therapy in patients with late-stage prostate cancer that has become insensitive to hormonal therapy. The phenoxodiol is being administered three times daily on a continuous basis over treatment cycles of 12 weeks. There will be 24 patients in this trial, with patients being allocated to 7 different dose levels (from 0.72 to 9.0 mg per 24-hr). The study currently is in the third dose stratum.

Phenoxodiol and cutaneous SCC

The potential for phenoxodiol in the treatment of cutaneous SCC arose from the observation that in patients being treated for other forms of cancer who coincidentally had aggressive, malignant SCC of the skin, the SCC tumours responded impressively. A phase II trial is current at an Australian hospital in patients with malignant SCC of the skin. Phenoxodiol is being administered orally, three times daily for a period of 3 months. There will be 30 patients enrolled and they will be each allocated to a treatment regimen of one 50 mg dose taken 3 times per day.

Phenoxodiol and leukemia

A trial of intravenous phenoxodiol is current at an Australian hospital in patients with various types of hematological cancers. The decision now to focus the use of phenoxodiol on solid tumors and to develop a separate phenoxodiol analogue for hematological cancers means this study will be terminated in the near future.

Phenoxodiol unblocks death receptors

Ground-breaking work at Yale Medical School by a team of researchers led by Professor Gil Mor has revealed an important mode of action of phenoxodiol, and, in the process, has provided an important insight into how ovarian cancer cells can avoid the body's defences.

The life span of normal cells is determined by a balance between activation of growth and death receptors. When normal cells reach the end of their life, they turn off manufacture of death receptor blocking factors such as c-FLIP and XIAP, thereby allowing the death signaling pathway to be fully activated and normal cell death ensues.

Dr Mor's team showed that ovarian cancer cells possessed all the necessary parts of the Fas death receptor apparatus, but that it was non-functional, due to overexpression of c-FLIP rendering the cells impervious to the body's defence mechanisms and resistant to traditional cancer drugs. The action of phenoxodiol was to inhibit c-FLIP and restore the integrity of the Fas death receptor apparatus, but that it was non-functional, due to overexpression of c-FLIP rendering the cells impervious to the body's defence mechanisms and resistant to traditional cancer drugs. The action of phenoxodiol was to inhibit c-FLIP and restore the integrity of the Fas death receptor apparatus, but that it was non-functional, due to overexpression of c-FLIP rendering the cells impervious to the body's defence mechanisms and resistant to traditional cancer drugs. This important finding was published recently in the Nature journal *Oncogene*.

Phenoxodiol targets ECTO-NOX proteins

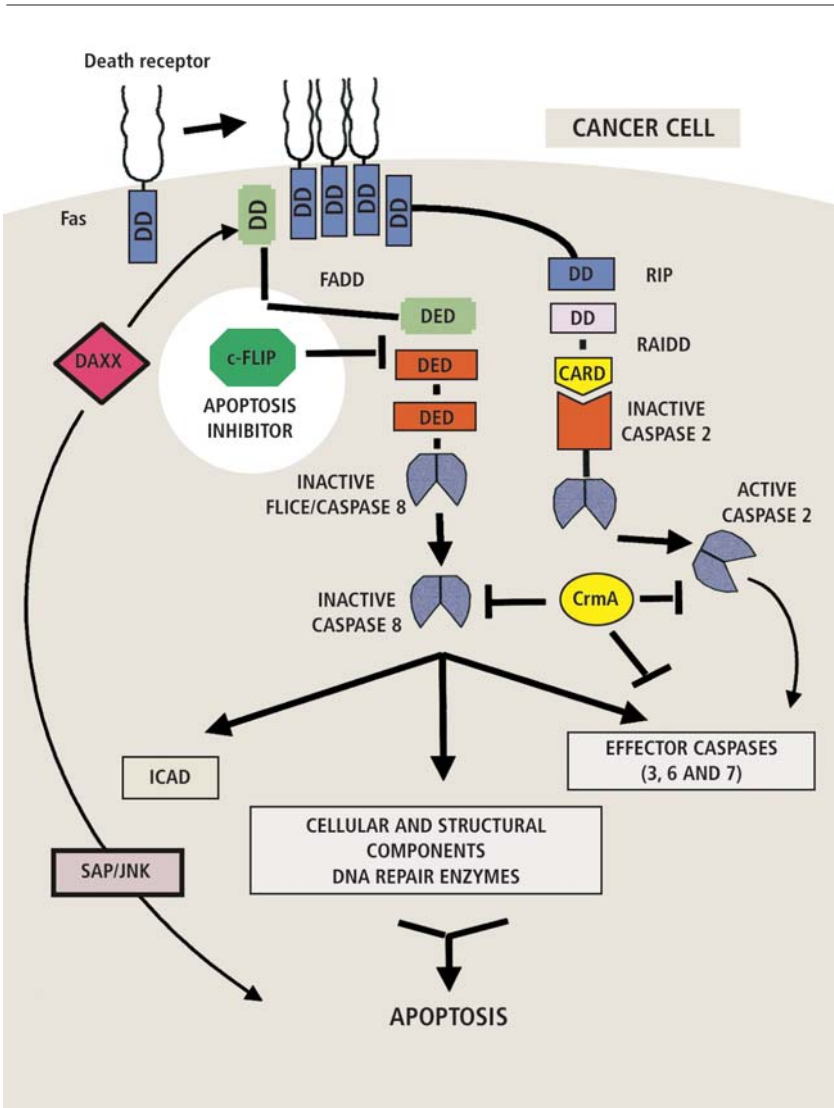
The ECTO-NOX is a family of enzymes that is found on the cell membranes of all living organisms and is responsible for the management of the energy balance in the cell. One of these enzymes, cNOX, recently has been shown to play a vital role in the survival of all living cells.

A team of scientists headed by Professor James Morré of Purdue University in Indiana, USA, has shown recently that all forms of human cancer express a mutant form of

cNOX known as tNOX. This makes tNOX a universal marker of cancer cells. The presence of tNOX completely disrupts the normal pattern of behaviour of the cell, enabling uncontrolled energy production and represents the start of the cancer process. A functional tNOX is essential to the ongoing survival of the cancer cell. Novogen and MEI believe this work is about to have a major impact on cancer research.

Phenoxodiol specifically blocks the action of tNOX but has no effect on cNOX. This provides an explanation of how phenoxodiol can be so selective in its action, and have its cytotoxic effects on cancer cells. □

Phenoxodiol targets c-FLIP



"...phenoxodiol was able to induce cell death in ovarian cancer cells that proved to be resistant to the effects of all other drugs, including those presently in use for the treatment of ovarian cancer."

Professor Mor

"In Yale laboratories, we could not find another compound as promising as phenoxodiol for this form of cancer."

Professor Rutherford

(1→3)(1→6)-β-D-glucan

Phase II – 60 patients 3 major clinics

Glucoprime enters phase II clinical study for wound healing



The principal investigator at the RNSH study site, Dr Rod Lane, said he had been very encouraged by the response of patients to Glucoprime. "These are patients with large leg ulcers that in many cases have been there for years and have failed to heal in response to standard treatments."

Glucoprime is a proprietary glucan compound that has been developed by Novogen for promotion of healing in skin ulcers due to poor circulation or bed-sores. Glucoprime derives from Novogen's glucan technology platform and is a carbohydrate polymer of (1→3)(1→6)-β-D-glucan. Over the past 3 years, Novogen has been evaluating a range of different glucans in phase I clinical studies, and has selected Glucoprime as the best-performing compound.

The clinical study is being conducted by Glycotex Inc. the US-based subsidiary specifically established by Novogen to develop its glucan technology. The trial is being run at three major clinics in Sydney that specialise in the treatment of skin ulcers. There will be 60 patients in the trial, and they all have leg ulcers that are due to venous stasis and have failed to respond to standard wound care treatment.

Glucoprime works on the principle of stimulating the cells that drive the healing process in a wound. These cells, known as macrophages, are vital to the healing process. Skin ulcers such as those associated with venous stasis (eg. varicose veins) or arterial disease (eg. diabetes) or chronic pressure (eg. bedsores) fail to heal in a large part because of adverse conditions within the wound for macrophages.

Glucoprime is the most powerful inducer of macrophage activity that Novogen has discovered. Placing this compound in the wound entices macrophages into the wound and then activates them to promote the cascade of events that lead to closure of the wound.

The clinical study is expected to conclude in 2004. The primary outcome of the study is the degree of closure of the wound compared to a placebo control preparation.

The trial is testing two dosage forms of a gel containing either 0.1% or 1.0% of Glucoprime.

In May, Glycotex Inc. raised A\$500,000 from a number of investors to undertake this Phase II clinical trial. Novogen holds 97.5% of Glycotex Inc. □



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