



5 June 2006

Securities and Exchange Commission
Judiciary Plaza,
450 Fifth Street,
Washington DC 20549



06014372



SUPL

Re: Bionomics Limited - File number 82-34682

Please see attached provided pursuant to Section 12g3-2(b) file number 82-34682.

Yours sincerely

A handwritten signature in black ink, appearing to be "S. Birrell", written over a horizontal line.

re. Stephen Birrell
CFO & Company Secretary

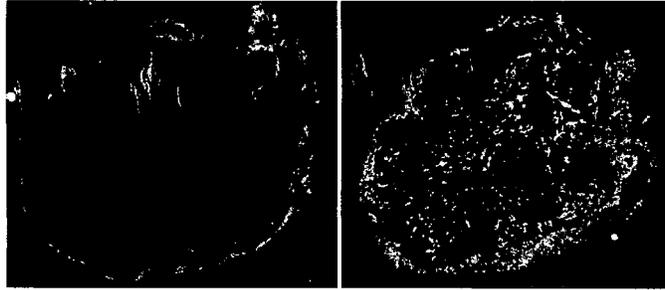
PROCESSED

JUN 15 2006

**J THOMSON
FINANCIAL**

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Bionomics Update : *The New Bionomics* June 2006



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Safe Harbour Statement

Factors Affecting Future Performance

This presentation contains "forward-looking" statements within the meaning of the United States' Private Securities Litigation Reform Act of 1995. Any statements contained in this presentation that relate to prospective events or developments, including, without limitation, statements made regarding Bionomics' development candidate BNC105, its drug discovery programs and pending patent applications are deemed to be forward-looking statements. Words such as "believes," "anticipates," "plans," "expects," "projects," "forecasts," "will" and similar expressions are intended to identify forward-looking statements.

There are a number of important factors that could cause actual results or events to differ materially from those indicated by these forward-looking statements, including risks related to our available funds or existing funding arrangements, a downturn in our customers' markets, our failure to introduce new products or technologies in a timely manner, regulatory changes, risks related to our international operations, our inability to integrate acquired businesses and technologies into our existing business and to our competitive advantages, as well as other factors. Results of studies performed on competitors products may vary from those reported when tested in different settings.

Subject to the requirements of any applicable legislation or the listing rules of any stock exchange on which our securities are quoted, we disclaim any intention or obligation to update any forward-looking statements as a result of developments occurring after the date of this presentation.

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Bionomics Limited

Company Snapshot

- A developer of therapies for cancer and CNS diseases

- Therapeutic indications:
 - Cancer
 - Multiple Sclerosis
 - Anxiety
 - Epilepsy

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Bionomics Limited

Company Snapshot

Financial Position 05/06	Share Structure
<ul style="list-style-type: none">➤ Cash at March 31 \$5.6 m<ul style="list-style-type: none">➤ 16% of market cap➤ Ave net cash burn per quarter for 05/06: \$900,000<ul style="list-style-type: none">➤ 75% of expenses are R&D➤ Revenues for 9 months to 31 March: \$1.50 m➤ Grant income for 9 months to 31 March: \$1.50 m	<ul style="list-style-type: none">➤ ASX :BNO➤ 155 million shares on issue<ul style="list-style-type: none">➤ Top 20= 70%➤ BNOOA options: 31 July 2007, exercise price 50 cents➤ BNOOB options: 31 January 2009, exercise price 22 cents➤ Market cap ~\$34 million

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Bionomics Investment Highlights

- Solid pipeline in CNS and cancer
 - BNC105 is the most potent and selective drug candidate for shutting down cancer blood vessels identified
 - Lead compounds for treatment of anxiety and epilepsy
 - Lead compounds for treatment of multiple sclerosis

- Antibody target licensing deal with Genmab A/S
 - World leader in antibody therapeutics, Market cap ~ US1 billion
 - Upfront payment, milestones and royalties on approved products for 8 target deal

- Three licensing agreements for revenue generating epilepsy diagnostics

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Recent Highlights

- BNC105 nominated as clinical drug candidate for cancer

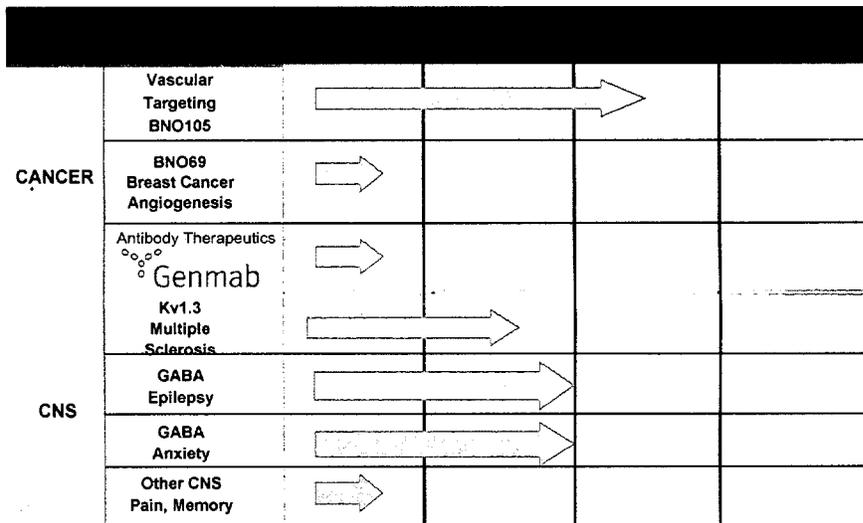
- \$3.7 million Commercial Ready grant to assist BNC105 development

- Key animal data on epilepsy compound

- Key animal data on anxiety compound

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Bionomics Pipeline



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BNC105: a powerful vascular disrupting agent (VDA*) and next generation treatment for cancer

- Bionomics drug candidate **BNC105** – radically outperforms its competitors
 - selectively shuts down cancer blood vessels
 - inhibits the growth of tumours in model systems
 - significantly enhances the efficacy of chemotherapeutics doxorubicin and 5-fluorouracil
 - exhibits a broad therapeutic window

*VDAs shut down the blood supply of cancers

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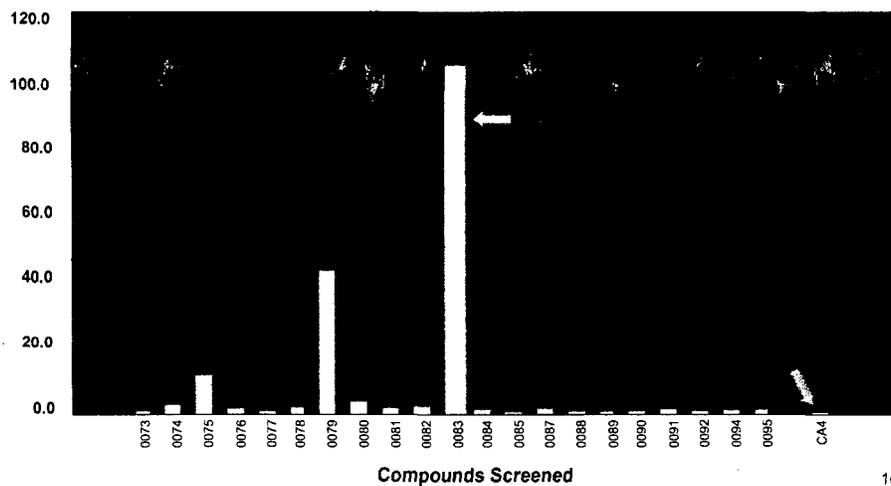
The market potential for **BNC105** is very significant

- VDAs and angiogenesis inhibitors have an estimated market potential of ~US\$12 billion (Scripp Reports 2002; ASInsights 2003)
- Cancer accounts for ~600,000 annual deaths in the US, each of these represents a treatment failure (Scripp Reports 2002)
- ***VDAs promise more effective treatment than other anti-cancer compounds that target Tubulin and BNC105 is outperforming competitors pre-clinically***

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BNC105 exhibits 100-fold selectivity for activated blood vessel cells
This selectivity is not displayed by a leading competitor

Selectivity Index



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In human cancer models **BNC105** performs better than a leading competitor

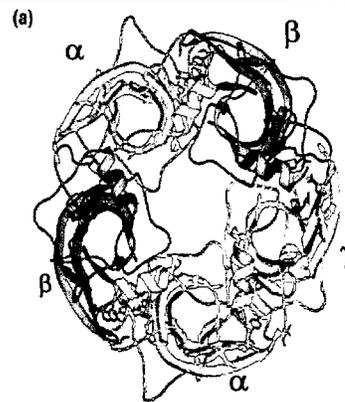


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Anxiety and Epilepsy Programs

Bionomics has identified compounds that offer potent anxiety relief without sedation

- The neurotransmitter receptor, GABA-A is already the target of many successful drugs including diazepam and phenobarbital
- However, all of these drugs have significant side effects including sedation and addiction
- Bionomics' strategy is to develop a new class of GABA-A modulators with reduced side-effects by targeting specific *subtypes* of GABA-A



Structure of the GABA-A receptor

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Anxiety Drug Market

- Approximately 2 million Australians suffer from an anxiety disorder – almost 10% of the population.
- Most common psychiatric disorder in both Australia and the US where an estimated 19 million people are affected.
- Global market for drugs that treat anxiety was estimated at US\$14.5 billion in 2003.
- Market needs are non-sedating, non-addictive treatments.
- **BNO drug lead preclinical results are comparable to that of the benchmark drug diazepam (valium) but *very importantly* lacks sedative effects.**

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Epilepsy Drug Market

- Current market is approximately US\$6 billion and is growing at 17% pa.
- Anti-epileptics market dominated by old, off-patent medicines — often poorly tolerated, many side-effects.
- Up to 3% of the population have epilepsy.
 - Disease management by long term anticonvulsant therapy.
- **BNO drug lead “bench marked” to marketed anti-epileptic drugs shows benefit across seizure types**

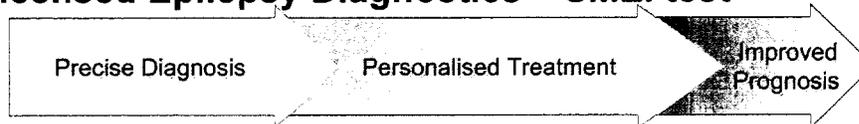
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BNO drug lead “bench marked” to marketed anti-epileptic drugs shows benefit across seizure types

Drug	Effective versus clonic	Effective versus tonic	Minor seizures
BNC-00313	-100%	-100%	absent
Carbamazepine	0%	-20%	Present
Valproate	0%	-71%	Present
Levetiracetan	0%	-29%	Present
Gabapentin	0%	-73%	Present
Diazepam	0%	-86%	Present
Phenytoin	-11%	-89%	Present
Phenobarbital	0%	-100%	Present
Clobazam	-10%	-90%	Present
Oxycarbazepine	-0%	-83%	Present
Lamotrigine	0%	-71%	Present
Clonazepam	0%	-87%	Present
Primidone	0%	-57%	Present
Acetazolamide	0%	-100%	Present
Ethosuximide	0%	-100%	Present
Vigabatrin	0%	-100%	Present
Piracetam	-16%	-100%	Present

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Licensed Epilepsy Diagnostics – SMEI test



- US market estimated US\$44 million pa
- SMEI is a severe form of childhood epilepsy
 - Up to 18% mortality and up to 50% show developmental delay and brain damage
- Early diagnosis difficult and treatment is disappointing
 - Certain drugs can make seizures worse
- Bionomics' SMEI Diagnostic Test meets clinical needs
 - Leads to early and precise diagnosis
 - Enables choice of appropriate treatment strategies

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Second BNO diagnostic test for epilepsy Benign Familial Seizures Panel

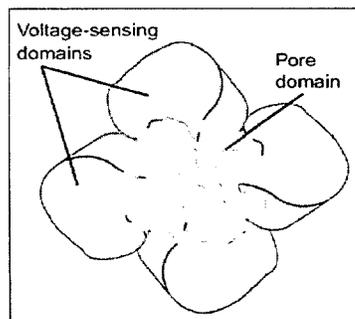
- Estimated US market US\$78 million pa
- Test for children less than 1 year, with seizures
- Distinguishes several early childhood epilepsy syndromes from others with more unfavorable prognoses
- Positive diagnoses of these benign conditions is likely to be reassuring to parents

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Multiple Sclerosis Project

The Kv1.3 ion channel is a highly promising target for new Multiple Sclerosis therapies

- current treatments are only partially effective and have serious side effects



BNO Product profile:

First orally available MS therapy with clinically acceptable side effects

- ***Blockbuster potential***

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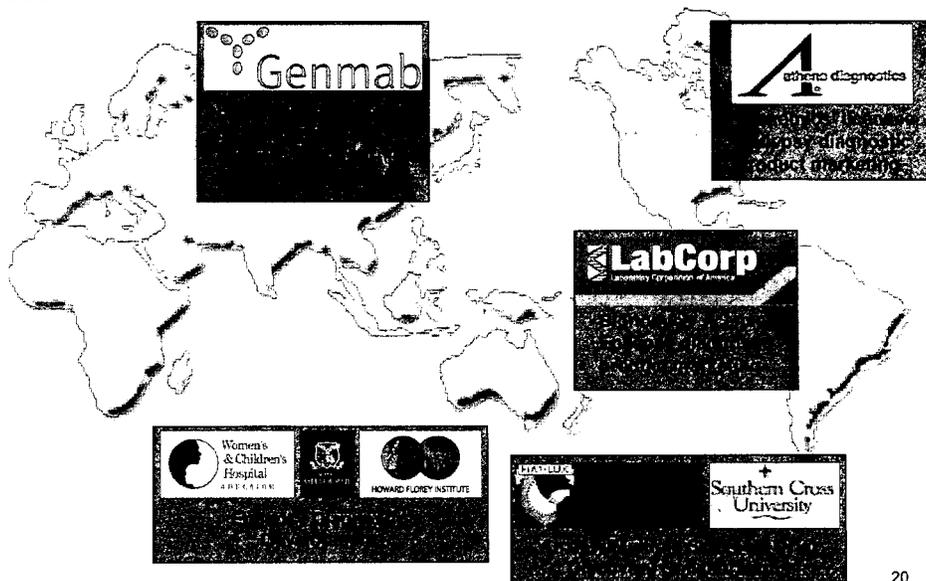
Multiple Sclerosis Market

- US\$2 billion pa in sales
- Affects approximately 350,000 people in the US
- Degenerative disease of the CNS characterized by loss of myelin sheath around nerves
- Unmet needs:
 - Corticosteroids only partially effective, many systemic side-effects
 - Biologicals, including Tysabri not orally available, still ineffective in many patients, serious side effects

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Bionomics' Global Partnerships

Bionomics has a wide network of commercial and R & D partnerships with leading companies and research institutes



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Executive Management

Bionomics' management team has a long track record of scientific accomplishment and commercial success



Dr. Deborah Rathjen
Managing Director and CEO

CEO since 2000
Inventor of Peptech TNF technology



Dr. Alex Szabo
VP, Business Development

Affymetrix, Beckman Coulter, Pharmacia Biotech



Dr. Bernard Flynn
VP, Chemistry

Former CEO/Founder Iliad
Inventor of MultiCore®



Dr. Gabriel Kremmidiotis
VP, Cancer Research

Founding Bionomics scientist
Creator of Angene® platform



Dr. Ian Street
VP, Drug Discovery

Merck, Amrad, Walter and Eliza Hall Institute



Dr. Frank Sams-Dodd
GM, Neurofit, VP Preclinical Research

Former Director of Preclinical Research, Boehringer-Ingelheim



Stephen Birrell
CFO, Company Secretary

20 years experience in financial services, high-tech, luxury goods

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Outlook

- BNC 105 development program
 - Pre-IND meeting Q3, 2006
 - Manufacture of BNC105 completed Q4, 2006
 - Completion of formal toxicology Q2, 2007
 - Investigational New Drug (IND) filing with US FDA Q3, 2007
 - Commence clinical trials Q4, 2007
- GABA/Epilepsy program
 - Compound patent applications filed July 2006
 - Selection of drug candidate June 2007
 - Objective to partner program in the next 18 months
- GABA/Anxiety program
 - Compound patent applications filed July 2006
 - Selection of drug candidate June 2007
 - Objective to partner program in the next 18 months
- Kv1.3/Multiple Sclerosis program
 - Preclinical proof of concept in MS in current lead series Q3, 2006
 - Preclinical proof of concept in other autoimmune disease setting Q1, 2007
 - Selection of drug candidate June 2007
- US launch by LabCorp of SMEI epilepsy diagnostic June 2006

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Bionomics

*Bringing revolutionary therapies
for cancer and CNS diseases towards
clinical development*

Contact : Deborah Rathjen

CEO & Managing Director

+ 61 8 8354 6101

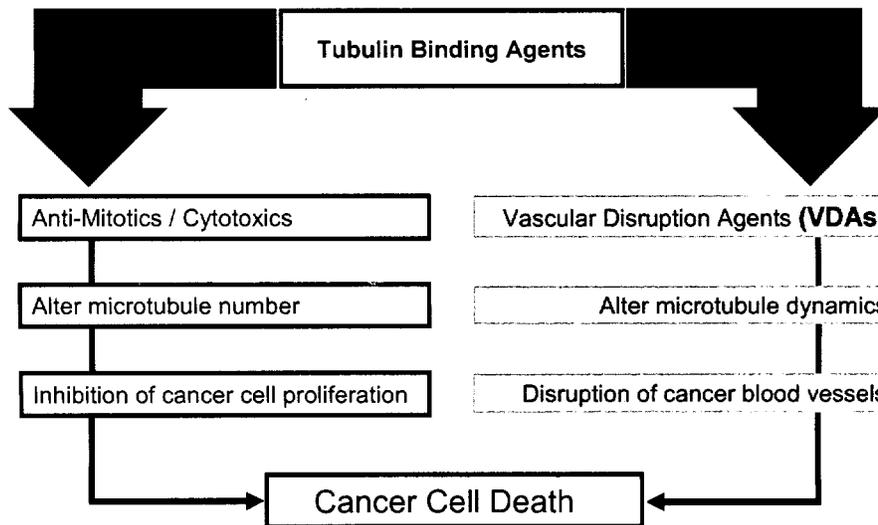
www.bionomics.com.au

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Appendix

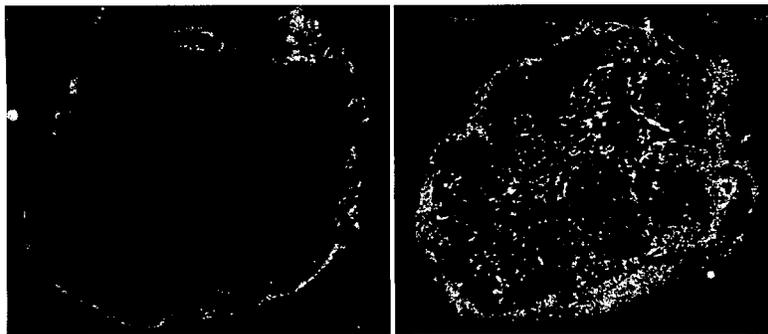
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VDA's promise more effective treatment than anti-cancer compounds that target Tubulin



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BNC105 shuts down the blood supply of human breast cancer in a model system



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BNC105

is more potent than leading competitors



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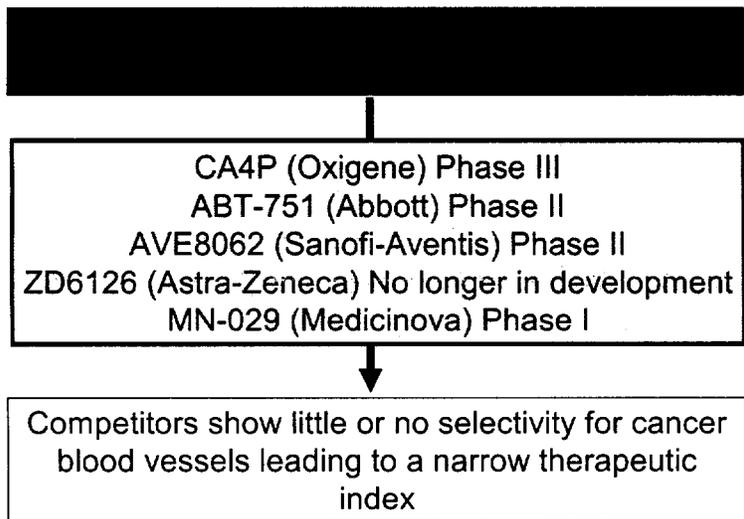
BNC105 enhances the anti-cancer effect of
5-FU in model systems of human breast cancer



BNC105 - 10mg/kg

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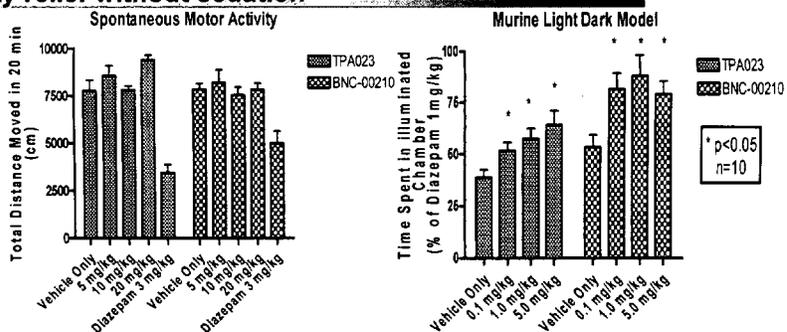
Increased selectivity for cancer blood vessels is a key competitive advantage of **BNC105**



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Anxiety

Bionomics has identified compounds that offer potent anxiety relief without sedation



- Above: Example of a Bionomics anxiety drug lead. Treated animals are less anxious and therefore spend more time in the light. Results are comparable to that of the benchmark drug diazepam (valium) and a competing Merck compound.
- The compound does not cause sedation above that of vehicle alone as measured by spontaneous motor activity .

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Kv1.3 Inhibitor for Multiple Sclerosis

- Bionomics is developing inhibitors of the Kv1.3 ion channel as treatments for Multiple Sclerosis
- Kv1.3 is specifically expressed on TEM “Effector Memory” T cells of the immune system, and is required for their activation. Their aberrant activity causes Multiple Sclerosis
- Kv1.3 inhibitors may also be effective as treatments for rheumatoid arthritis, diabetes and other immune or inflammatory diseases