FOR IMMEDIATE RELEASE

ChemGenex to Present at Rodman & Renshaw Global Investment Conference in the U.S.

MELBOURNE, Australia, and MENLO PARK, California U.S.A. (13 September 2010) – ChemGenex Pharmaceuticals Limited (ASX: CXS) announced today that Greg Collier, PhD, Chief Executive Officer and Managing Director will present a company update at the Rodman and Renshaw 12th Annual Healthcare Conference in the Winslow Salon of the New York Palace Hotel on Tuesday, 14 September 2010 at 11:15 a.m. Eastern Time in the U.S. (Wednesday, 15 September 2010 at 1:15 a.m. in Eastern Australia).

Dr Collier will provide an update on the development of omacetaxine (OMAPRO™) and upcoming milestones.

Dr Collier's presentation, being the company's corporate overview, is appended to this announcement.

About ChemGenex Pharmaceuticals Limited

ChemGenex is an oncology focused biopharmaceutical company developing small molecules with new mechanisms of action to treat malignancies with significant unmet medical needs. A New Drug Application is under review by the U.S. Food and Drug Administration and a Marketing Authorisation Application is under review by the European Medicines Agency for CML patients who have failed imatinib therapy and have the Bcr-Abl T315I mutation. An additional New Drug Application is in preparation for CML patients who have failed two or more tyrosine kinase inhibitors. ChemGenex has established a corporate alliance with Hospira to develop and commercialize omacetaxine in Europe, the Middle East and parts of Africa, and is seeking to establish commercial partnerships in the rest of the world. ChemGenex plans to commercialize omacetaxine itself in North America. ChemGenex trades on the Australian Stock Exchange under the symbol "CXS" For additional information on ChemGenex Pharmaceuticals, please visit the company's website at http://www.chemgenex.com.

ChemGenex Contacts:

ChemGenex Information
Dr. Greg Collier
CEO and Managing Director
Cell (Aust): +61 419 897501
Cell (USA): +1 650 200 8145
Email:
gcollier@chemgenex.com

Investor Relations – Australia
Kyahn Williamson
Buchan Consulting
Tel: +61 (0)3 9866 4722
Cell: + 61 (0)401 018 828
Email:
kwilliamson@bcg.com.au

Investor Relations – USA
Dr. Andrew McDonald
LifeSci Advisors, LLC

Cell: +1.415.205.0591
Email:
andrew@lifesciadvisors.com

Safe Harbor Statement

Certain statements made herein (including for this purpose sites to which a hyperlink has been provided) that use the words “estimate”, “project”, “intend”, “expect”, “believe” and similar expressions are intended to identify forward-looking statements within the meaning of the US Private Securities Litigation Reform Act of 1995. These forward-looking statements involve known and unknown risks and uncertainties which could cause the actual results, performance or achievements of the company to be materially different from those which may be expressed or implied by such statements, including, among others, risks or uncertainties associated with the development of the company’s technology, the ability to successfully market products in the clinical pipeline, the ability to advance promising therapeutics through clinical trials, the ability to establish our fully integrated technologies, the ability to enter into additional collaborations and strategic alliances and expand current collaborations and obtain milestone payments, the suitability of internally discovered genes for drug development, the ability of the company to meet its financial requirements, the ability of the company to protect its proprietary technology, potential limitations on the company’s technology, the market for the company’s products, government regulation in Australia and the United States, changes in tax and other laws, changes in competition and the loss of key personnel. These statements are based on our management’s current expectations and are subject to a number of uncertainties that could change the results described in the forward-looking statements. Investors should be aware that there are no assurances that results will not differ from those projected.

Corporate Overview

September 2010

www.chemgenex.com

ASX:CXS

Safe Harbor Statement and Recognition of Trademarks

Certain statements made herein that use the words “estimate”, “project”, “intend”, “expect”, “believe,” and similar expressions are intended to identify forward-looking statements within the meaning of the US Private Securities Litigation Reform Act of 1995. These forward-looking statements involve known and unknown risks and uncertainties which could cause the actual results, performance or achievements of the company to be materially different from those which may be expressed or implied by such statements, including, among others, risks or uncertainties associated with the development of the company’s technology, the ability to successfully market products in the clinical pipeline, the ability to advance promising therapeutics through clinical trials, the ability to establish our fully integrated technologies, the ability to enter into additional collaborations and strategic alliances and expand current collaborations and obtain milestone payments, the ability of the company to meet its financial requirements, the ability of the company to protect its proprietary technology, potential limitations on the company’s technology, the market for the company’s products, government regulation in Australia and the United States, changes in tax and other laws, changes in competition and the loss of key personnel. These statements are based on our management’s current expectations and are subject to a number of uncertainties that could change the results described in the forward looking statements. Investors should be aware that there are no assurances that results will not differ from those projected.

CHEMGENEX PHARMACEUTICALS

Overview

- Biopharmaceutical company delivering novel solutions to cancer patients with unmet needs
  - Expertise in hematologic malignancies
  - Small molecule drugs with novel mechanisms of action
- Lead asset OMAPRO™ (omacetaxine mepesuccinate) effective in TKI Resistant Chronic Myeloid Leukemia (CML)
- Completed two pivotal trials;
  - T315I+ CML patients
  - Multi-TKI resistant CML patients

CHEMGENEX PHARMACEUTICALS

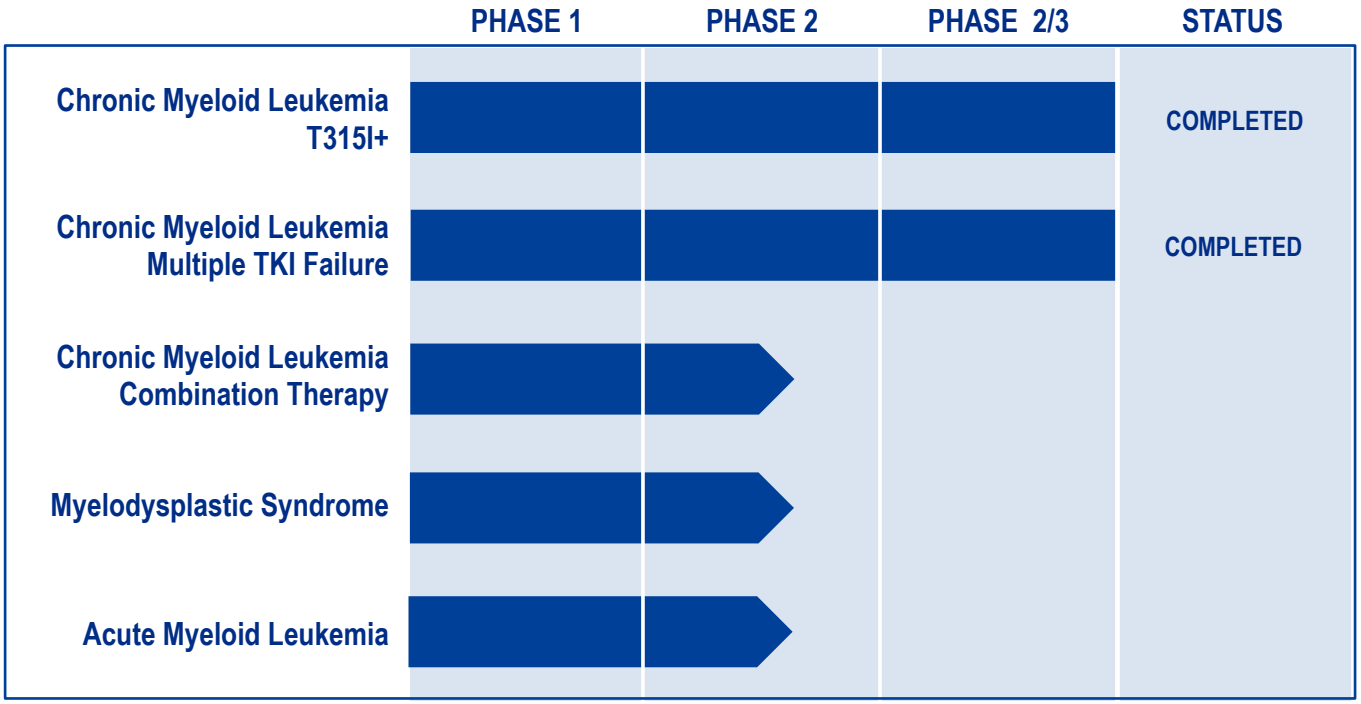
OMAPRO: A Potential New Treatment for Hematologic Cancers

- A first-in-class cetaxine
- Clinical activity as a single agent in CML, AML and MDS
- A unique mechanism of action
  - Specifically binds the ribosomal A-site cleft inhibiting protein translation[1]
  - Selectively reduces the levels of short-lived oncoproteins such as Mcl-1 and c-Myc that are up-regulated in leukemic cells[2]
  - Demonstrated, *in vitro*, to kill human CML stem cells and peripheral leukemic cells[3]

[1]Gurel, G. *et al.* J. Mol Biol. (2009), doi:10.1016/j.jmb.2009.04.005; [2]Robert F *et al.* 2009) PLoS ONE 4(5): e5428 doi:10.1371/journal.pone.0005428; [3]Allan, E. et al. EHA Annual Congress 2009

CHEMGENEX PHARMACEUTICALS

OMAPRO Clinical Trial Development



CHEMGENEX PHARMACEUTICALS

The CML Market &

Current Treatment Options

CHEMGENEX
PHARMACEUTICALS

Paradigm Shift in the Management of CML

- Chronic Myeloid Leukemia (CML)
  - Malignancy of the bone marrow
  - 5,000 new cases per annum in the U.S.
  - Worldwide prevalence >100,000 patients and growing
- First Line Therapy: Two approved TKIs
  - Imatinib approved in 2001
    - Global sales of US$3.94 billion in 2009 (60-70% in CML)[1]
  - Nilotinib approved June 17, 2010
- Second Line Therapy: Two approved TKIs
  - Dasatinib approved in June 2006 (US$420M 2009 sales)[2]
  - Nilotinib approved in October 2007 (US$212M 2009 sales)[3]

[1,3]Novartis 2009 Annual Report; [2] Bristol-Myers Squibb 2009 Annual Report

CHEMGENEX PHARMACEUTICALS

Paradigm Shift in the Management of CML

1st Line Therapy

Newly Diagnosed CML Patients

Imatinib

Global sales of US$3.94 billion in 2009 (60-70% in CML)[1]

Nilotinib

Approved June 2010

2nd Line Therapy

Resistance developed

Treatment depends on diagnosis

Dasatinib

US$420M 2009 sales[2]

Nilotinib

US$212M 2009 sales[3]

Omacetaxine for Patients with T315i+ Mutation

Multi-TKI Resistant

Omacetaxine for Multiple TKI-Resistant Failure

Includes all mutations

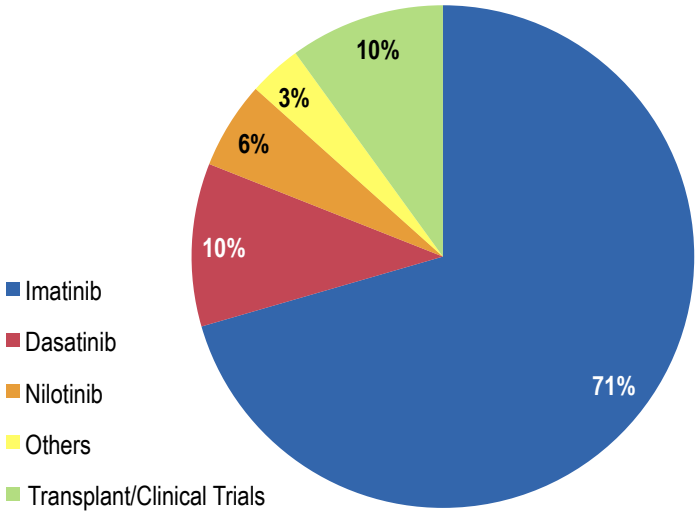
CHEMGENEX PHARMACEUTICALS

Treatment Source: NCCN Clinical Practice Guidelines In Oncology™ – Chronic Myelogenous Leukemia V.2.2010. [1,3]Novartis 2009 Annual Report; [2] Bristol-Myers Squibb 2009 Annual Report
Imatinib, dasatinib and nilotinib are approved agents. Omacetaxine is in development for above treatment areas.

The USA CML Market

CML Treatment Distribution

(Patients treated – 29,555)



Source: IntrinsiQ April 2009

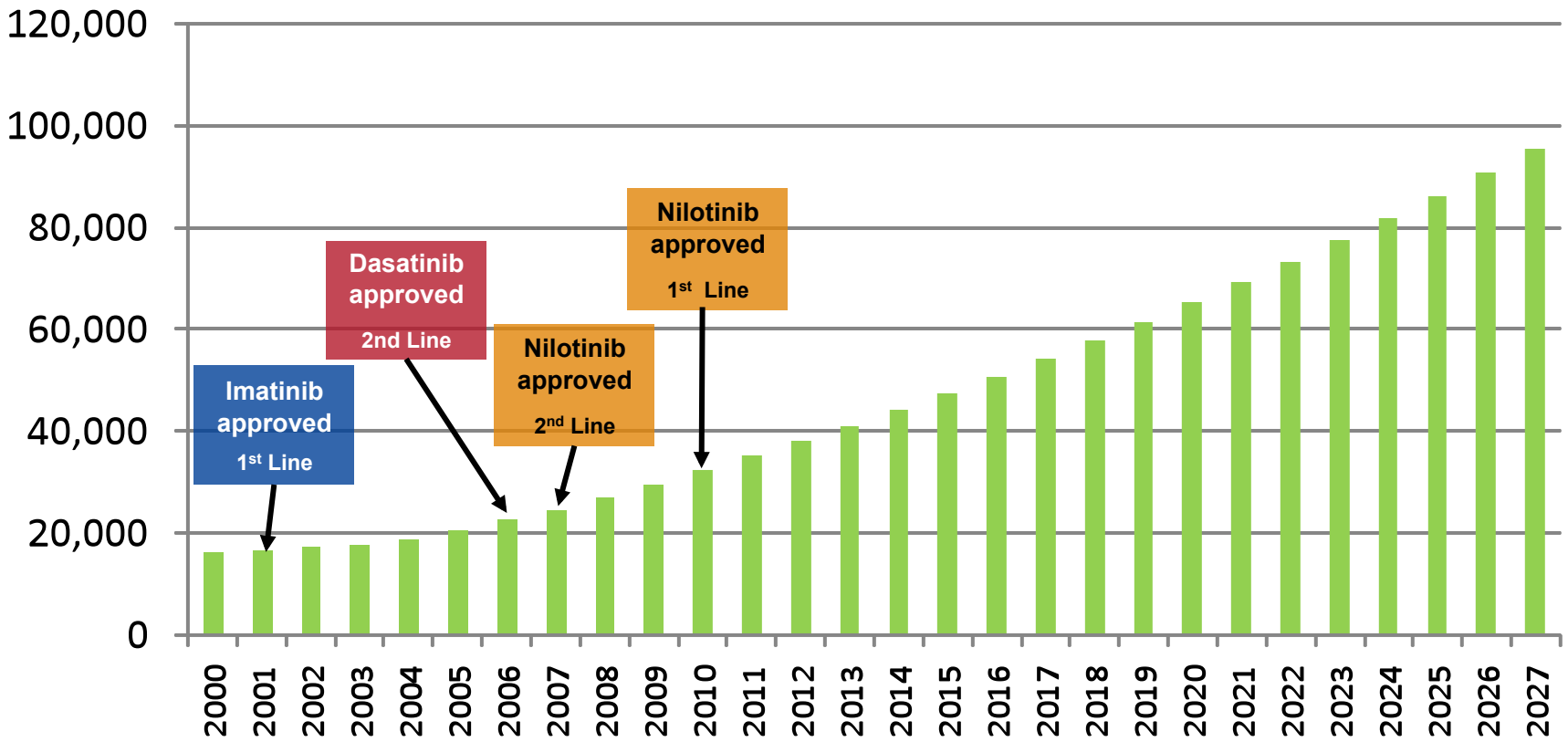
Pricing of Approved Drugs

Drug	Daily Dose	Annual Average Wholesale Price (US$)
Imatinib	400mg	52,800
	600mg	82,118
	800mg	105,601
Dasatinib	100mg	87,936
	140mg	87,936
Nilotinib	400mg	49,304
	600mg	73,956

Source: Red Book Q2 2009

CHEMGENEX PHARMACEUTICALS

Reductions in Mortality Increase CML Prevalence



ChemGenex estimates of growth rates in CML prevalence are more conservative than others c.f. 200,000 - 300,000 patients surviving in the USA by 2027; Jabbour. E et al Oncology. Vol. 21, No. 6, May 1, 2007); 2006 Prevalence: Leukemia & Lymphoma Society "Facts 2009-2010" P.7 Table 2; Incidence and Deaths due to CML: Novartis publication (ref to SEER); ASCO 2008 abstract 7088

CHEMGENEX PHARMACEUTICALS

Multiple TKI Resistance represents an increasing unmet medical need in CML

- Patients who have failed imatinib and subsequent therapy with nilotinib or dasatinib due to:
  - Emergence of Bcr-Abl mutations
  - Bcr-Abl over-expression

- 45% of patients fail second generation TKIs within the first year[1]
- No approved treatments available for patients who have multiple TKI resistance

CHEMGENEX PHARMACEUTICALS

[1]Hochhaus et al Dasatinib induces notable hematologic and cytogenetic responses in chronic-phase CML after failure of imatinib therapy, Blood 2007. 109, 2303-2309

OMAPRO™

for the treatment of CML

CHEMGENEX PHARMACEUTICALS

OMAPRO Addresses Unmet Medical Needs

- OMAPRO™ (omacetaxine mepesuccinate) for subcutaneous injection
- Convenient and safe BID self-administration
  - Induction – up to 14 days per month
  - Maintenance – up to 7 days per month
- Strong safety profile
  - Myelosuppression is the most common side effect and is normally manageable and reversible
  - Infrequent grade 3/4 non-hematologic events experienced
  - Adverse events easily manageable with dose adjustments
  - Minimal injection site reactions
- Initial indications in multi-TKI resistant CML

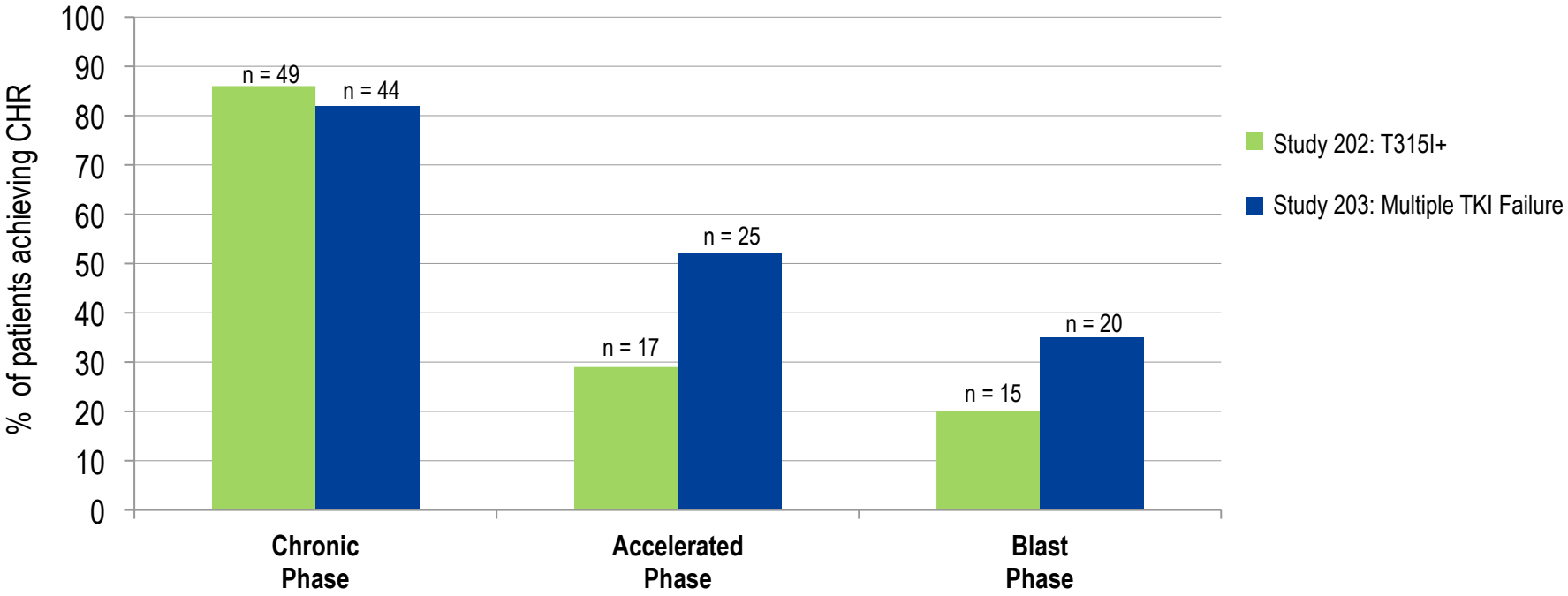
CHEMGENEX PHARMACEUTICALS

Two Completed Phase 2/3 Clinical Trials

	STUDY 202 CML T315I+ Patients	STUDY 203 Multiple TKI Failure CML
Design	Open label, Single arm	Open label, Single arm
Patients	Enrollment complete 103 patients	Enrollment complete 100 patients
Sites	35 in US, EU, Asia Pacific	35 in US, EU, Asia Pacific
Inclusion criteria	Patients who have failed imatinib and have T315I+ Bcr-Abl mutation	Patients who have failed two or more tyrosine kinase inhibitors
Dose (subcutaneous injection)	▪ Induction: 1.25 mg/m^2 two times a day for 14 days, every 28 days; up to 6 cycles ▪ Maintenance: as per induction phase, but 7 days treatment every 28 days	▪ Induction: 1.25 mg/m^2 two times a day for 14 days, every 28 days; up to 6 cycles ▪ Maintenance: as per induction phase, but 7 days treatment every 28 days
Primary endpoints	▪ Cytogenetic response ▪ Hematologic response (chronic, accelerated, blast phase)	▪ Cytogenetic response ▪ Hematologic response (chronic, accelerated, blast phase)
Status	Completed	Completed

CHEMGENEX PHARMACEUTICALS

Hematologic Responses in Patients Treated with OMAPRO



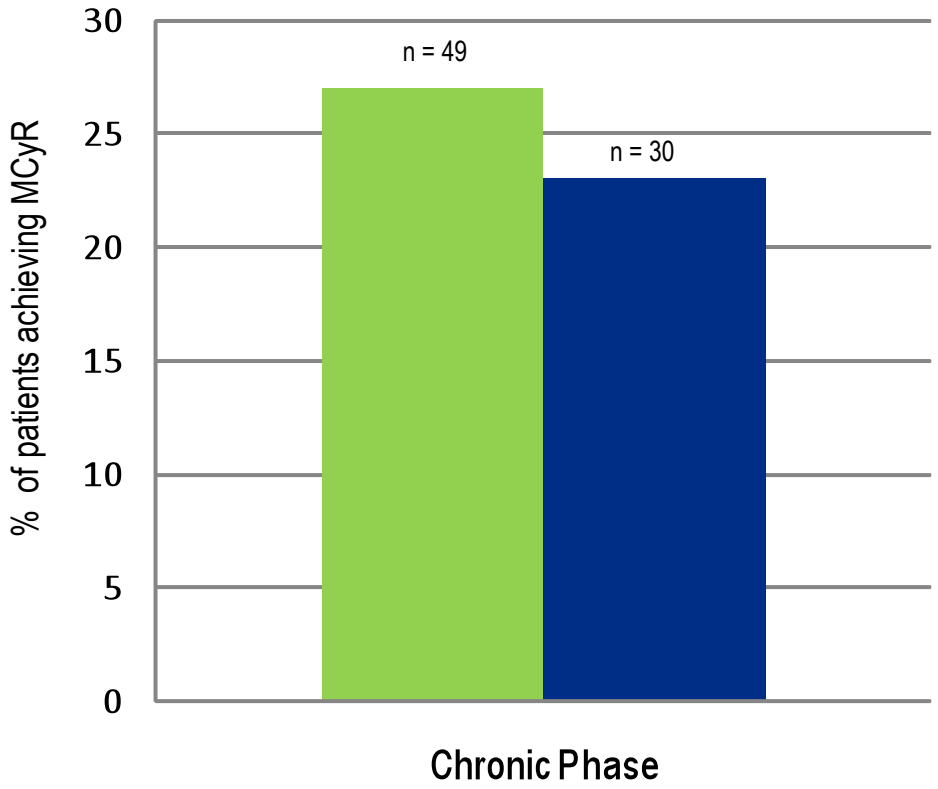
Median response duration (months)	Chronic Phase	Accelerated Phase	Blast Phase
Study 202: T315I+	9.1 (0.7 – 30.)	6.6 (0.9 – 14.8)	2 (0.5 – 4.7)
Study 203: Multiple TKI Failure	4.8 (1.15 – 19.38)	3.1 (0.72 – 10.53)	2.5 (0.66 – 10.95)

Data independently adjudicated by Data Monitoring Committee.

Sources: Cortes, J.E et al. 2009 ASH Annual Meeting Abstract No: 644. Blood 114: 22, 2009; Cortes, J.E et al. 2009 ASH Annual Meeting Abstract No: 861. Blood 114: 22, 2009

CHEMGENEX PHARMACEUTICALS

Cytogenetic Responses in Patients Treated with OMAPRO



Study 202: T315I+

Study 203: Multiple TKI Failure

Median response duration (months)

Study 202	4.7 (0.1 – 14.1)
Study 203	2.3 (0.03 – 9.34)

Data independently adjudicated by Data Monitoring Committee.

Sources: Cortes, J.E et al. 2009 ASH Annual Meeting Abstract No: 644. Blood 114: 22, 2009; Cortes, J.E et al. 2009 ASH Annual Meeting Abstract No: 861. Blood 114: 22, 2009

CHEMGENEX PHARMACEUTICALS

OMAPRO regulatory status

- Robust efficacy and safety database
- Regulatory filings in process and/or under review
  - U.S. NDA (multi-TKI resistance)
  - European MAA (T315I+ mutation)
- Individual patients treated globally under compassionate use scheme

CHEMGENEX PHARMACEUTICALS

Corporate Overview

CHEMGENEX PHARMACEUTICALS

Corporate Strategy

- U.S. commercialization planned
- Partnered with Hospira in Europe, the Middle East, parts of Africa
  - Upfront payment of A$17.5 million
  - Potential for an additional €74.1 million based on development and sales milestones plus royalties (CML only)
  - Further milestones and royalties possible with future indications
  - Strong alignment of strategic intent
- ChemGenex retains ROW product rights including North America

CHEMGENEX PHARMACEUTICALS

U.S. Commercial Strategy

- Initial sales and marketing promotional efforts directed at U.S. Hematology Centers of Excellence
- Key customer targets include
  - Key opinion leaders in hematology/oncology
  - Regional thought leaders
  - Patient advocacy and social media outlets
  - Payors
- Targeted specialty pharmacy distribution approach
- GMP validated manufacturing
  - Commercial manufacturing partnership with attractive Cost of Goods Sold

CHEMGENEX PHARMACEUTICALS

Strong Board and Senior Management Team

Management

Greg Collier, PhD*	Chief Executive Officer and Managing Director
Adam Craig, MD, PhD, MBA	Senior Vice President and Chief Medical Officer
James Campbell, PhD, MBA	Chief Financial Officer and Chief Operating Officer
Tom DeZao, BA	Senior Vice President and Chief Commercial Officer
Tom O'Neil, BA, MBA	Vice President of Finance and Administration
Katie Cairati, MS	Senior Director of Regulatory Affairs

Board of Directors

Brett Heading, LLB (Chairman)	McCullough Robertson Lawyers
Dan Janney, BA, MBA	Alta Partners
Geoff Brooke, MBBS, MBA	GBS Venture Partners
Elmar Schnee, BCom Mkting	CEO, Merck Serono
George Morstyn, MBBS, PhD	Former SVP and CMO, Amgen
Jean-Luc Tétard	President, Stragen Pharma

*Also Board Member

CHEMGENEX PHARMACEUTICALS

Financial Snapshot

Financial Parameter	
Shares (ASX: CXS)	283 million
Market capitalization*	A$ 95 million
Cash held	A$ 12.8 million (as of 30 June 2010)
Significant Shareholders	Alta Partners (15%), Stragen Pharma (13%), Orbis Investments (13%), Merck Serono (9%), GBS (8%)

*Effective 6 Sept 2010
USD/AUD approximately 0.91

CHEMGENEX PHARMACEUTICALS

Summary

- OMAPRO is an active drug with a different mechanism of action than current TKIs
- Multiple TKI Resistance represents an increasing unmet medical need
- Completed two pivotal trials offering a potential new treatment option for CML patients
- Commercial strategies in place
  - Omacetaxine partnered in Europe, the Middle East and parts of Africa with Hospira
  - U.S. commercialization planned by ChemGenex
- Strong leadership team and blue chip investors

CHEMGENEX PHARMACEUTICALS

Contacts

Australia

Level 4

199 Moorabool St,

Geelong, Victoria 3220

Tel: +61 3 5223 9900

USA

Suite 200

4040 Campbell Avenue,

Menlo Park, CA 94025

Tel: +1 650 804 7660

www.chemgenex.com

CHEMGENEX PHARMACEUTICALS