Investor Presentation

July 2009

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Pharmacyclics, Inc.

Safe-Harbor Statement

During the course of this presentation we will make statements that constitute forward-looking statements. These statements may include operating expense projections, the initiation, timing and results of pending or future clinical trials, the actions or potential action of the FDA, the status and timing of ongoing research, corporate partnering activities and other factors affecting Pharmacyclics' financial condition or operations. Such forward-looking statements are not guarantees of future performance and involve risks, uncertainties and other factors that may cause actual results, performance or achievements to vary materially from those expressed or implied in such statements. These and other risk factors are listed from time to time in reports filed with the Securities and Exchange Commission, including but not limited to, reports on Forms 10-Q and 10-K. Pharmacyclics does not intend to update any forward-looking information to reflect actual results or changes in the factors affecting the forward-looking information.

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Pharmacyclics, Inc.

To learn about each of our drugs, their development status and to get further explanations and definitions of technical terms please go to our website at: www.pharmacyclics.com.

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The New Pharmacyclics
Investment Highlights

- New direction, new management team and new board
- Significant insider ownership
- Four drugs in the clinic and three drugs in preclinical development
- Oncology, autoimmune, allergy and asthma therapies
- Programs are novel for validated molecular targets and class leading
- Only one program, HDAC, partnered to date (for ex-US rights only)
- Multiple potential Phase II pivotal approval strategies
- Phase II clinical results expected within the next two years
- Predictive molecular assays integrated within clinical development programs
- Large addressable markets targeted: solid tumors, lymphoma and autoimmune (all billion $ markets)

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The New Pharmacyclics
Investment Highlights

- Partnered HDAC molecule for $39.5 million of which $15 million is guaranteed.
- A high single-digit royalty is due based on sales.
- Les Laboratoires Servier, the second largest French pharmaceutical company worldwide, also purchased HDAC product from Pharmacyclics, which is scheduled for delivery during the current fiscal year for approximately $1.8 million.
- June 30, 2009 fiscal year end expenditures were approximately $20 million.
- Cash balances at June 30, 2009 fiscal year end exceeded $16 million.

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Our Mission Statement

- To build a viable biopharmaceutical company that designs, develops and commercializes novel therapies intended to improve quality of life, increase duration of life and resolve serious unmet medical healthcare needs.
- To identify promising product candidates based on exceptional scientific development expertise, develop our products in a rapid, cost-efficient manner, and pursue commercialization and/or development partners when and where appropriate.
- We exist to make a difference for the better, and these are important times to do just that.

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Risk Reduction with Four Clinical Programs

- Oncology BTK Inhibitor - PCI - 32765 - Phase I
  - Potential oral therapy for B cell malignancies
  - Currently conducting Phase I, Phase II planned late 2009
  - Autoimmune and mast cell clinical Proof of Concept Studies to begin first half of 2010
- Autoimmune BTK Inhibitor – PCI 4-Series – Preclinical, Phase I Initiation in late 2010
  - Highly specific oral inhibitor of B cells and mast cells
  - Disease areas include rheumatoid arthritis, interstitial cystitis, Sjorgren's, food hypersensitivity, atopic dermatitis, allergic rhinitis, urticaria
- Oncology Histone Deacetylase (HDAC) – PCI – 24781 - Entering two Phase II trials
  - Best in class safety profile with clinical responses in refractory lymphoma
- Oncology Factor VIIa Inhibitor - PCI - 27483 - Phase II planned in second half 2009
  - For tumors with increased tissue factor expression - pancreatic, colon, gastric, NSCLC, ovarian
  - Dual inhibitor: anti-tumor activity and anti-venous thromboembolism (VTE)
- Oncology Motexafin Gadolinium - MGd- two fully accrued Phase II trials (awaiting survival determination)
  - Glioblastoma with temozolomide (123 patients) and in Pontine Glioma (62 patients)

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Pharmacyclics Development Portfolio
A Full Pipeline with Near Term Milestones

NAME	INDICATION	DESCRIPTION	STATUS
PCI-32765	B cell lymphoma	Oral BTK Inhibitor for BCR expressing tumors	Phase I
	Allergic and Autoimmune Disorders	Oral BTK Inhibitor B and mast cells	Phase I planned 1H 2010
PCI-4 Series	Autoimmune Disorders	Oral BTK Inhibitor B and mast cells	Advanced Preclinical
PCI-24781	Hematologic Malignancies	Oral HDAC Inhibitor	Phase I/II
	Sarcoma + Dox	Oral HDAC Inhibitor	Phase II planned 2H 2009
PCI-27483	Tumors with increased tissue factor expression; initially pancreatic cancer	Factor VIIa Inhibitor Anti-tumor and Anti VTE	Phase I completed Phase II planned in 2H 2009
Motexafin Gadolinium	Pontine Glioma	Radiation Sensitizer	Phase II (fully accrued)
	Glioblastoma + temozolamide	Radiation Sensitizer	Phase II (fully accrued)
HDAC-8 Inhibitor	Autoimmune and Cancer	HDAC-8 Inhibitor	Preclinical

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Management Team

Experienced Leadership, Scientific Expertise & Large Mgmt Ownership

Bob Duggan - CEO & Chairman

- Highly successful entrepreneur; "Pioneer of Robotic Surgery"; over 30 million in equity invested
- Significant value created in his career of starting and operating companies

Glenn Rice, PhD - COO & President

- Founder and/or original executive team at 7 biopharma companies
- Five exits include four acquisitions and one IPO
- Former head of Stanford Research Institute Biosciences Division
- Genentech alumni with a strong science background

Maky Zanganeh, DDS, MS, MBA – Vice President Business Development

- 11 years experience in medical industries.
- Former President EMEA for Computer Motions (Pioneer of Robotic Surgery)
- Former Director General for French Government Bio-Cluster Project

Ahmed Hamdy, MD - Chief Medical Officer

- Therapeutic Area Head at Elan Pharmaceuticals and PDL Biopharma with experience from ALZA/JNJ and Watson Pharmaceuticals
- Involved in a broad spectrum of clinical development activities (9 Phase I, 3 Phase II, 8 Phase III and 3 Phase IV trials), track record delivering IND's and NDA's (5 INDs, 1 ANDA, 1 sNDA and 1 NDA)

Joseph Buggy, PhD - Vice President, Research

- 20 years of experience from Celera Genomics, AXYS Pharmaceuticals and Bayer. Ph.D. in Molecular, Cellular, and Developmental Biology, Indiana University

David Loury, PhD - Vice President, Preclinical Development

- 20 years of experience from Celera Genomics, Essential Therapeutics, IntraBiotics, Syntex and Roche Pharmaceuticals. Diplomat of the American Board of Toxicology. Ph.D. in Pharmacology and Toxicology, University of California, Davis

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Active and Distinguished Scientific & Clinical Advisory Board

Daniel Von Hoff, MD (TGen Institute, Arizona)

§ Physician in Chief & Director; CSO of US Oncology, past AACR President

Branimir I. Sikic, MD (Stanford University)

§ Co-Director, Stanford Center for Clinical and Translational Education and Research Director, Clinical and Translational Research Unit

Mark C. Genovese, MD (Stanford University)

§ Co-Chief of Immunology & Rheumatology, 2008 Henry Kunkel Award (ACR)

Paul Bunn, MD (University of Colorado)

§ James Dudley Endowed Chair of Cancer Research, Past ASCO President

Margaret Tempero, MD (University of California, San Francisco)

§ Chaired Professor; Deputy Director & Director Clinical Sciences, Past ASCO President

Edward A. Sausville, MD (University of Maryland)

§ Professor of Medicine, former Associate Director, Division of Cancer Treatment & Diagnosis of NCI

Steven D. Weitman, MD, PhD (Industry Consultant)

§ PI of clofarabine-approved; Former CMO of ILEX Oncology

Barton A. Kamen, MD, PhD (CMO Leukemia and Lymphoma Society)

§ Executive VP & Chief Medical Officer; Professor of Pediatrics & Pharmacology at Robert Wood Johnson Medical Schoo

Randall K. Johnson, PhD (Industry Consultant)

§ Former Head of SmithKline/GSK Oncology, NIH, over 30 years experience with cancer drugs

James L. Abruzzese, MD (MD Anderson)

§ Chairman, Department of Gastrointestinal Medical Oncology; M.G. and Lillie A. Johnson Chair for Cancer Treatment

Minesh P. Mehta, MD (University of Wisconsin)

§ Professor of Medicine, chair of FDA Radiological Devices Panel, International Expert on CNS tumors

Frederick R. Rickles, MD (Washington University)

• Professor and Dean, former FASEB President

David Smith, PhD (City of Hope)

§ Senior Biostatistician, former FDA Oncology Division Reviewer

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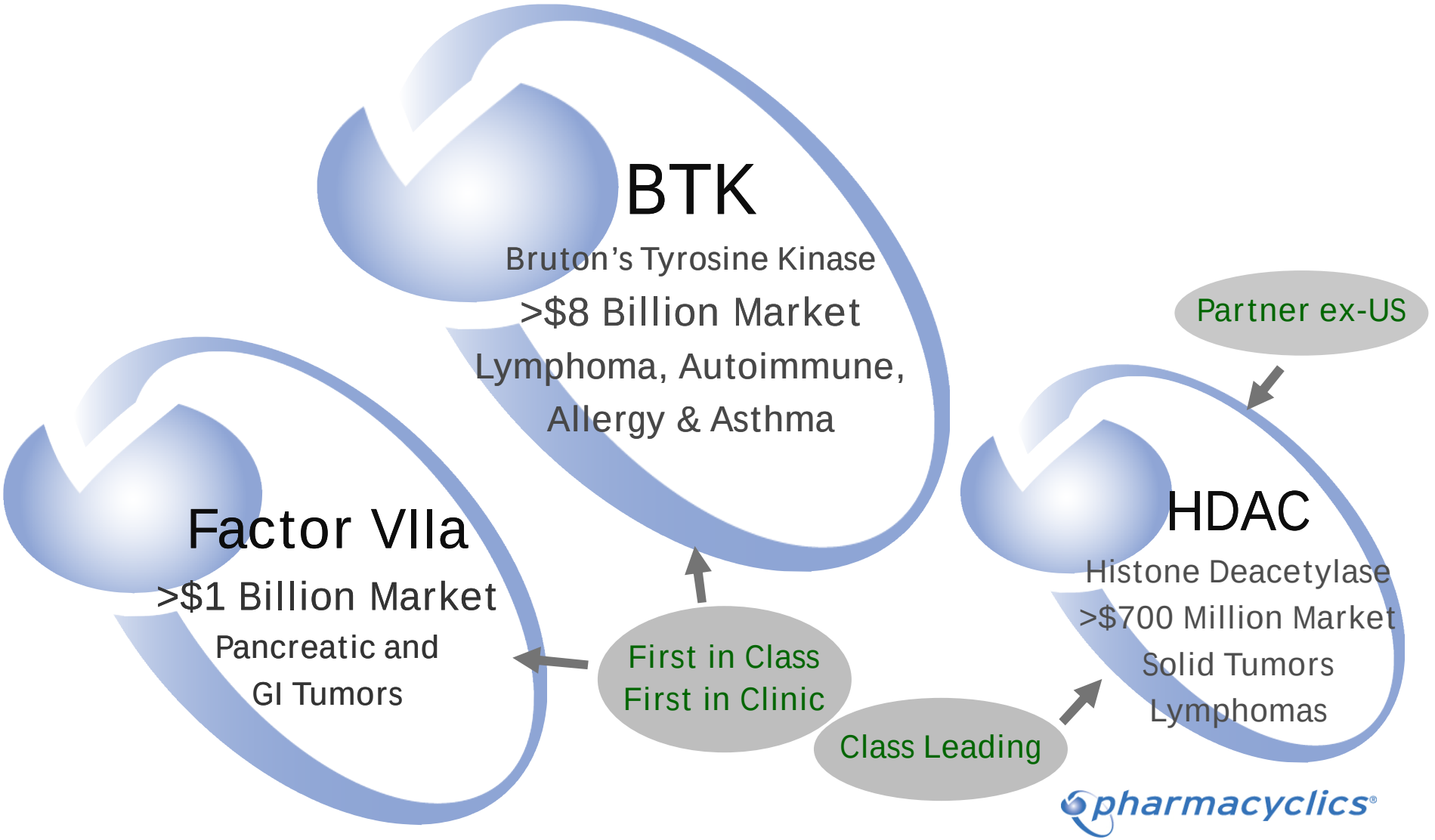
Large Addressable Markets



BTK-Targeted Development Program
Two independent programs

PCI-32765 – Oncology - Currently in Phase I B cell malignancies

- First-in-man BTK Inhibitor, orally administered small molecule
- Optimized for potency to achieve BTK inhibition at subnanomolar levels
- Phase II non-Hodgkin's lymphoma targeted late 2009
- Plans for further trials in allergic sensitization and autoimmune disease in near term
- US patent covering composition, use, methods allowed

PCI- 4-Series – Autoimmune Diseases - Preclinical Development

- Optimized for chronic oral dosing and target selectivity
- Phase I planned late 2010
- Will provide market pricing flexibility

For further explanations and definitions of technical terms regarding BTK please go to www.pharmacyclics.com/wt/page/btk_inhibitor_pci_32765

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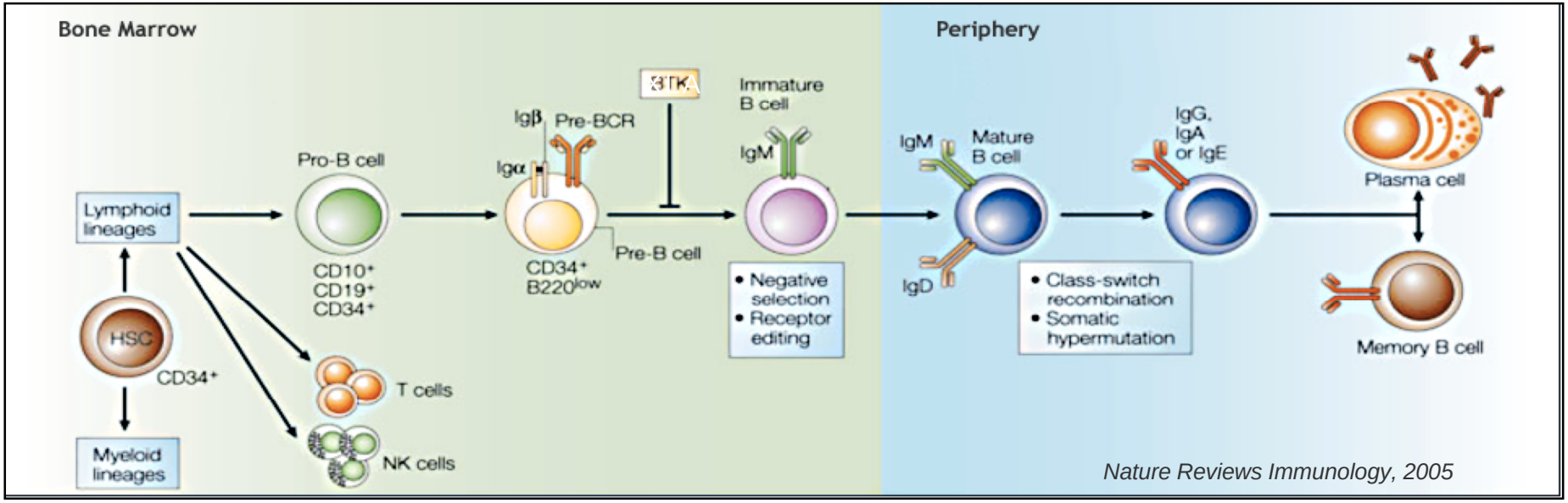
XLA Disease – Substantial Clinical Risk Reduction for Safety and Efficacy

- Mutations in BTK result in XLA (humans) and xid (mice)
- Patients with XLA have no mature B cells and produce no immunoglobulin
- T cell function is not affected
- No abnormalities occur in any organs or tissues outside of the immune system
- Other kinases in the B cell signaling pathway (e.g. Syk, Lyn, p38) function in multiple tissues and their deletion is genetically lethal



Nature Reviews Immunology, 2005

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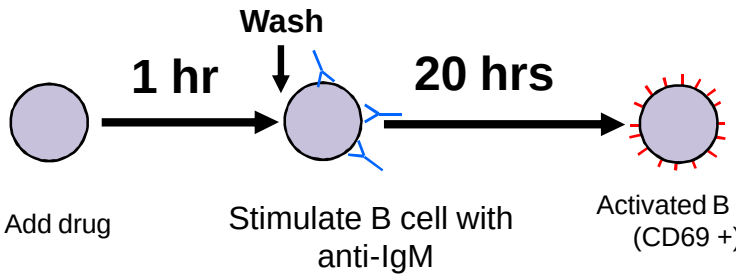
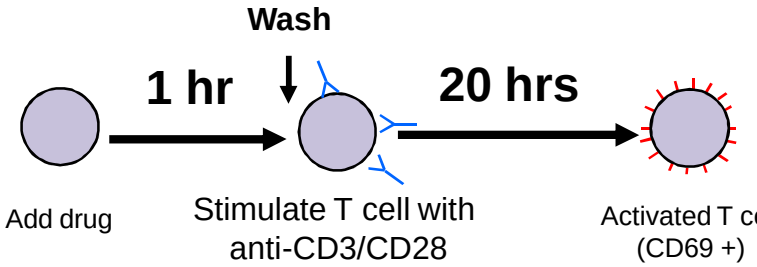
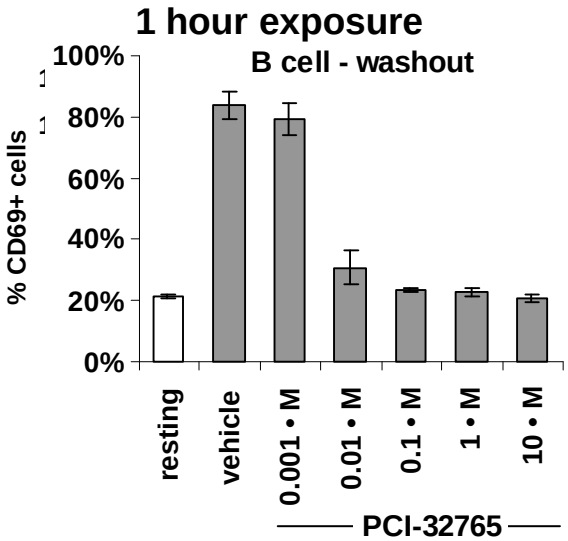
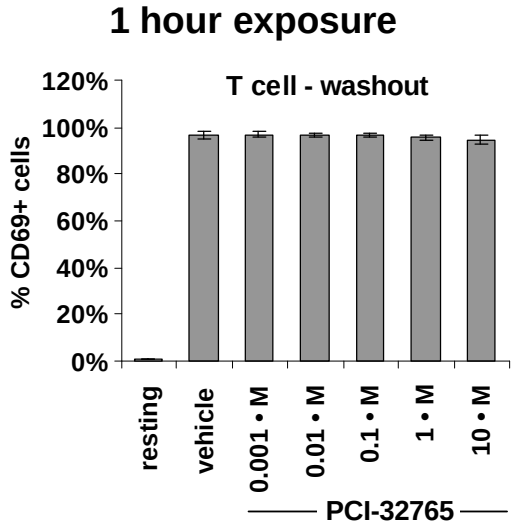
Highly Specific Small Molecule B Cell Inhibitor Without T Cell Effect







Normal human peripheral B cells



Normal human peripheral T cells

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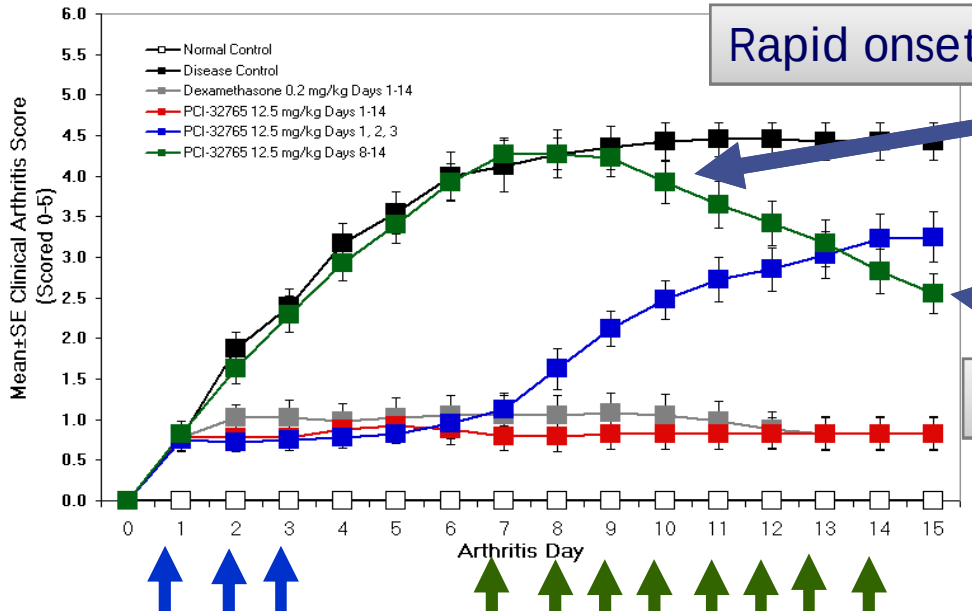
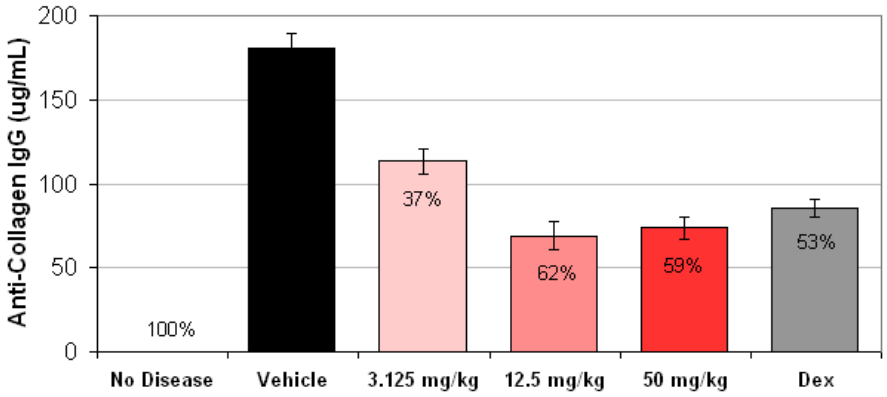
DMARD efficacy in collagen induced arthritis

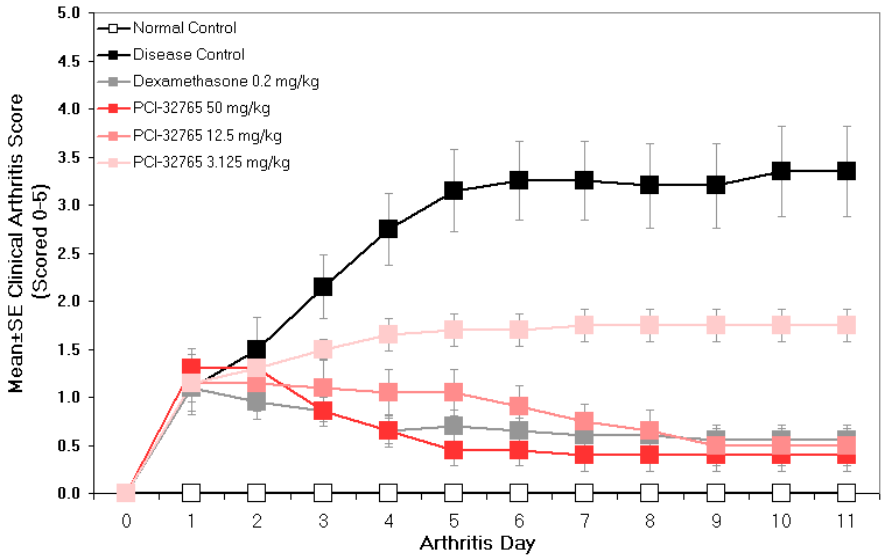


Rapid onset of effect in fully established disease

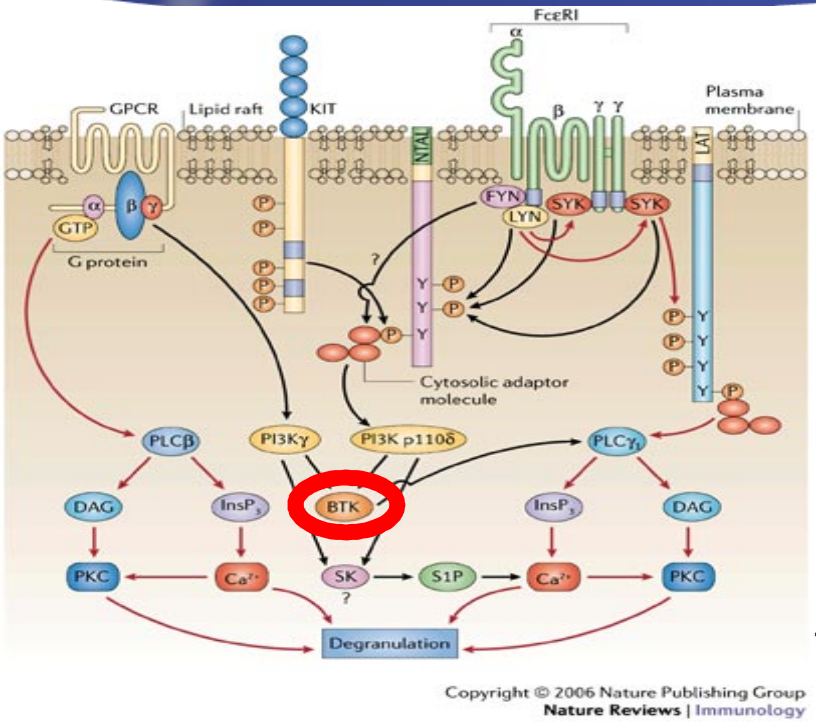
Reversal of fully established disease

ED_{50} = 4.5 mg/kg/day

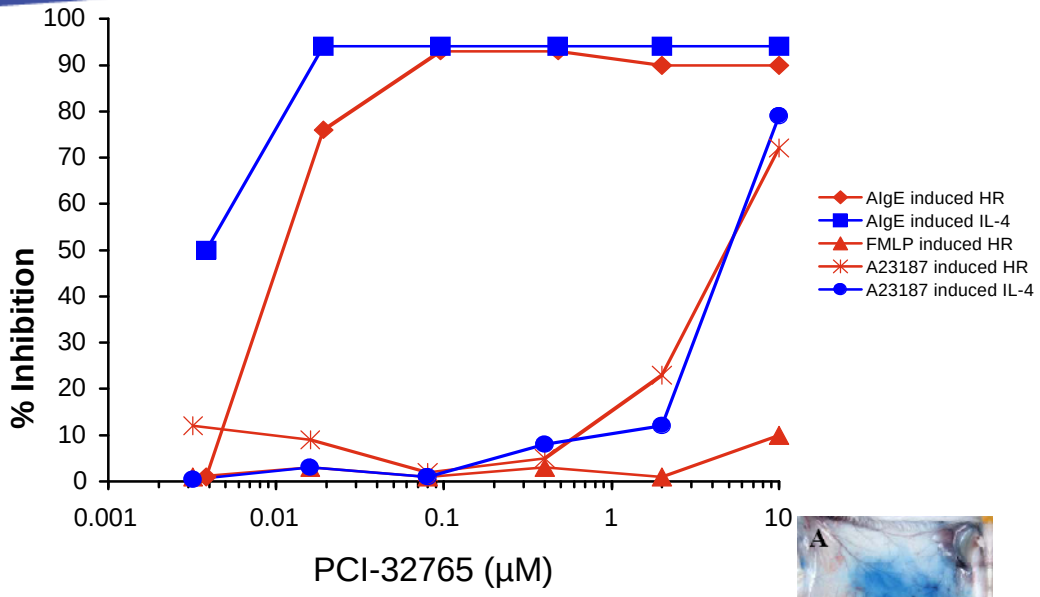


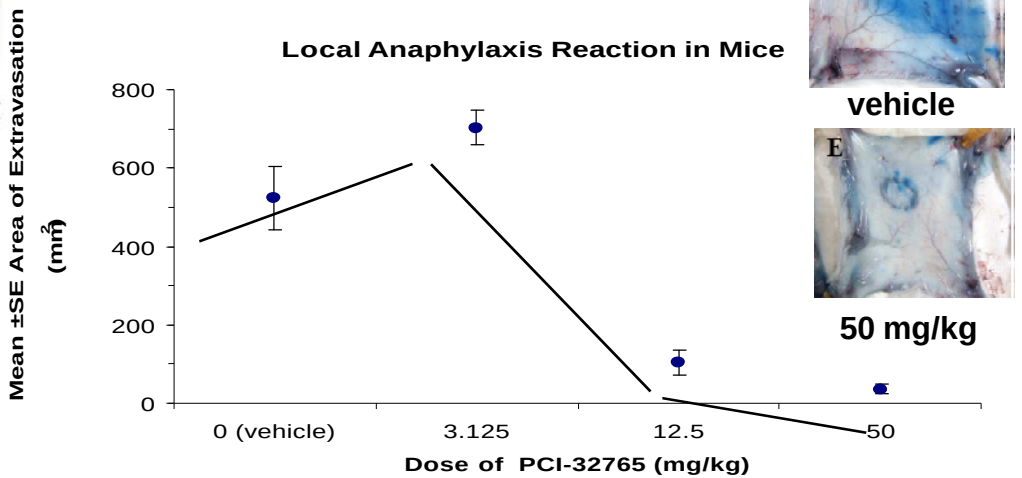


BTK is critically involved in Mast Cell Degranulation an important contributor in Asthma and Allergy



- Human CD34+ derived mast cells
- Fc•RI cross-linking: IgE+•IgE
- Assay: hexosaminidase release
- Confirmed in RBL-2H3 rat cell line
- No effect with FMLP (shows specificity)
- IgE histamine and IL-4 blocked at IC-50 2-5 nM (very potent)





vehicle

50 mg/kg

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Summary of BTK Oncology Program

- Validation for safety and efficacy of a BTK inhibition exists with the human genetic disease (XLA)
- Two distinct chemical development programs optimized from structure based design (32765 for oncology and 4-Series for autoimmune and allergy & asthma diseases)
- Highly specific nanomolar potency with no effect on T cells
- Potent activity in collagen induced arthritis (reversal of pre-existing disease) and mast cell inhibition
- Potent activity in murine transgenic lymphoma (representative for DLBCL, follicular, Burkitt's) and spontaneous canine lymphoma
- Early Phase I clinical activity shows initial pharmacodynamic inhibition of BTK in all patients and ex vivo assays

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BTK Inhibitors vs. Rituximab

	PCI-32765/PCI-4 Series	Rituximab
Target	BTK	CD20
Cellular selectivity	Inhibition of B and mast cell activation; genetic target in oncology in part identified to be ABC DLBCL phenotype	Nonspecific B cell killing
Duration of effect	24 to 48 hours; no immunodepletion	24 -150 weeks; severe depletion
Route	Oral	IV infusion (5 hr)
Rapid Disease Modification in RA	Yes	No
Cost of Goods/Treatment	Low	High

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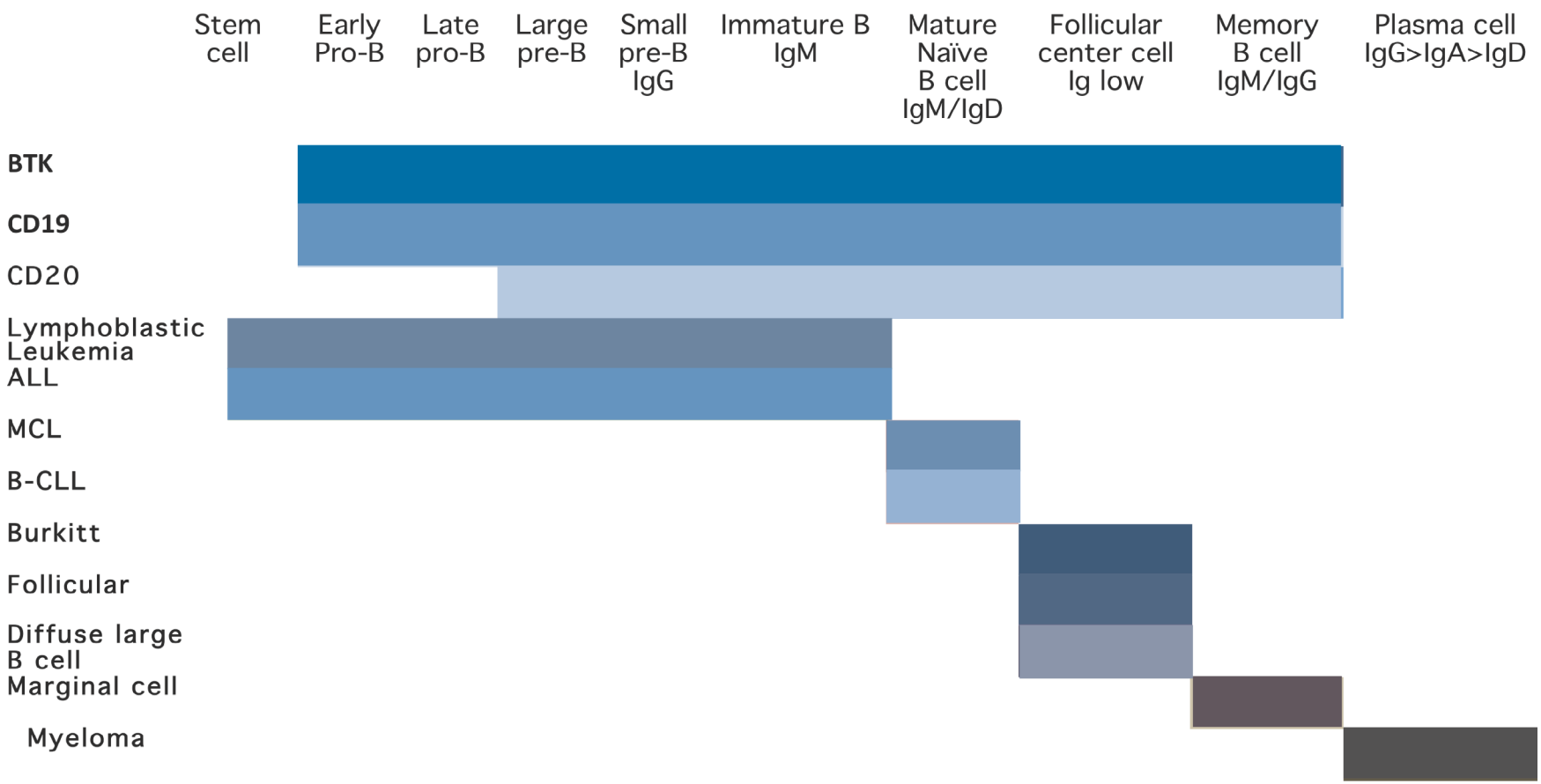
BTK has a wider expression than Rituxan (CD20)



[1] *Annu. Rev. Immunol. 1996. 14:131–54*

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Emerging Recognition and Interest in this new Therapeutic Class

‘”PCYC’s BTK Inhibitors have the potential of becoming a very real alternative to Rituxan® and have great potential in autoimmune disorders”

Mark C. Genovese, MD
Professor and Co-Chair Immunology and Rheumatology Dept. Stanford University, Pharmacyclics’ Advisory Board Member

“The specificity of Pharmacyclic’s BTK Inhibitors for B cells is really remarkable and unique. This drug class has exciting potential as a clinical alternative to Rituxan® in the treatment of a number of B cell malignancies such as ABC DLBCL”

Barton A. Kamen, MD, PhD
Chief Medical Officer Leukemia and Lymphoma Society, Pharmacyclics’ Advisory Board Member

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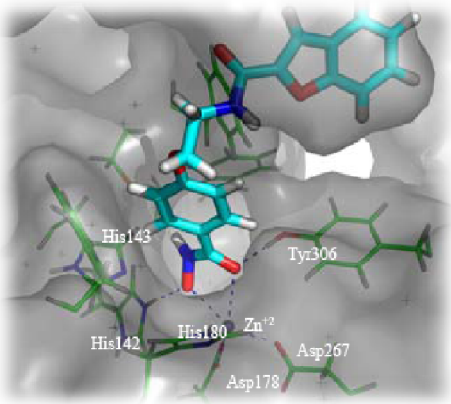
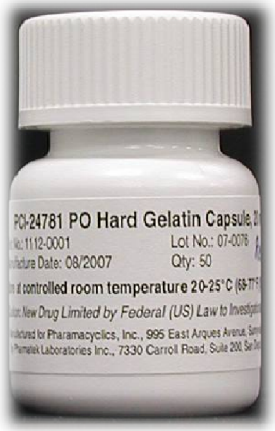
HDAC Inhibitor: PCI-24781

Currently entering Phase II trials



Primary Indications

- Solid Tumors
- Hematological Malignancies



- Potent oral inhibitor - 4-5 hour half-life to optimize the duration of acetylation
- Pharmacodynamic assays used to assess drug exposure (acetylation) and response (Rad51)
- Synergistic effects in combination with a number of cancer therapies– doxorubicin, platinum agents, alkylating agents, PARPi, radiation
- Also developing an additional class of HDAC 8 specific inhibitors for cancer and autoimmune use
- Leveraging Servier's clinical plan and substantial investments

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Phase I Safety Comparison
PCI-24781 is class leading

Grade III or greater reported Phase I toxicities (as of June 1, 2009)

PCI-24781:	1 case of fatigue in 70 patients; thrombocytopenia (reversible, asymptomatic)

LBH-589:	Cardiac QT prolongation, nausea (40%), diarrhea (33%), vomiting (33%), hpokalemia (27%), appetite loss (13%), thrombocytopenia(13%)
PXD101:	Fatigue, diarrhea, atrial fibrillation, nausea
Depsipeptide:	Cardiac ST/T changes, cardiac arrhythmia, fatigue, nausea, vomiting, thrombocytopenia
MS-275:	Hypophosphatemia, hyponatremia, hypoalbuminemia, myelosuppression
SAHA:	Fatigue, diarrhea, anorexia, nausea, dehydration, thrombocytopenia, anemia
MGCD0103:	Pericarditis (clinical hold), nausea, fatigue, vomiting, anorexia, dehydration

**Source:
-Giles et al, Clin Cancer Res 12, 4628-4635 (2006)
-Steele et al, Clin Cancer Res 14, 804-810 (2008)
-Sandor et al, Clin Cancer Res 8, 718-728 (2002)
-Kummar et al, Clin Cancer Res 13, 5411-5417 (2007)
-Kelly et al, J. Clin Oncol 23, 3923-3931 (2005)
-Siu et al, J. Clin Oncol 12, 1940-1947 (2008)

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Comparison of Phase I Responses

PCI-24781 versus the competition in Phase I

Observed responses in ongoing clinical trials as of June 1, 2009

PCYC-0401 (solid tumors): 5/15 SD (33%)
PCYC-0402 (solid tumors): 4/19 SD (21%)
PCYC-0403 (lymphomas): 6/11 SD and 2 PR (72%)

38% combined response

Two PR (Follicular NHL), 6 SD (SLL, CTCL, Follicular Lymphoma, Hodgkin's); also PTCL major response

LBH-589: No PR or SD reported
PXD101: 18/46 SD (39%), No CR/PR
Depsipeptide: 8/37 SD, and 1 PR (24%), 2.7% CR/PR
MS-275: 1/22 SD (4%), No CR/PR
SAHA: 22/73 SD, and 3 PR and 1 CR (36%), 5.5% CR/PR
MGCD0103: 5/32 SD (16%), No CR/PR

**Source:
-Giles et al, Clin Cancer Res 12, 4628-4635 (2006)
-Steele et al, Clin Cancer Res 14, 804-810 (2008)
-Sandor et al, Clin Cancer Res 8, 718-728 (2002)
-Kummar et al, Clin Cancer Res 13, 5411-5417 (2007)
-Kelly et al, J. Clin Oncol 23, 3923-3931 (2005)
-Siu et al, J. Clin Oncol 12, 1940-1947 (2008)

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PCYC has leading research in HDAC

CRA-024781: a novel synthetic inhibitor of histone deacetylase enzymes with antitumor activity *in vitro* and *in vivo*

Dr. Edward A. Sausville, M.D. Ph.D., former Associate Director NCI and Professor of Medicine University of Maryland Greenebaum Cancer Center, Pharmacyclics' Advisory Board Member

"PCI-24781 is an important HDAC inhibitor which is differentiating itself by virtue of lack of common side effects such as QTc prolongation and severe fatigue observed with the other HDAC inhibitors. I am impressed with its therapeutic window and the quality of this overall drug development program to date"

For further explanations and definitions of technical terms regarding HDAC please go to www.pharmacyclics.com/wt/page/hdac

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Servier Partnership - HDAC

Ex-US Development

- $10.45 Million Upfront Payment
- $4 Million in Guaranteed Research Payments over 24 Months
- ~$39 Million in Total Milestones
- High single digit royalties in EU and Japan
- Servier responsible for all clinical trials in ex-US with substantial clinical investments
- PCYC retains ALL US development & commercialization rights

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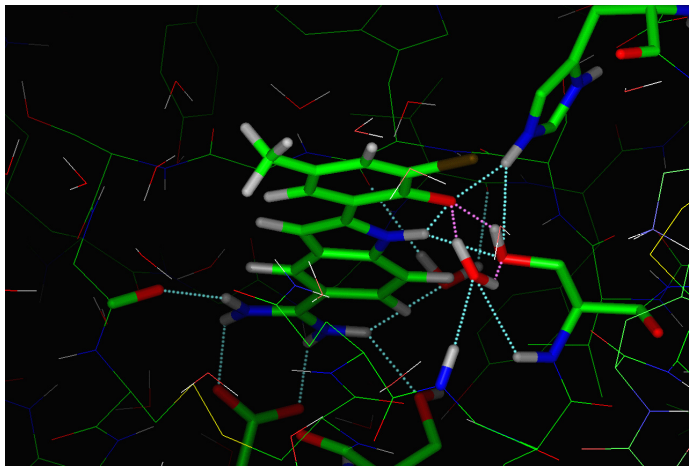
Factor VIIa Inhibitor: PCI-27483



Primary Indications

- Tumors over expressing Tissue Factor (TF)
- Pancreatic Cancer
- Stomach/Colon
- Lung
- Breast
- Melanoma

§ Structure-based drug design using crystallography, purified human FVIIa, and enzymatic assays

§ Molecule optimized for potency, selectivity, PK and solubility

§ Inhibition of enzyme activity of TF:FVIIa complex, Ki = 1.6 nM

§ First small-molecule FVII-specific inhibitor in clinic

§ Healthy volunteer Phase I study completed

§ Entering Phase II study in pancreatic cancer patients

For further explanations and definitions of technical terms regarding Factor VIIa please go to www.pharmacyclics.com/wt/page/pci_27483

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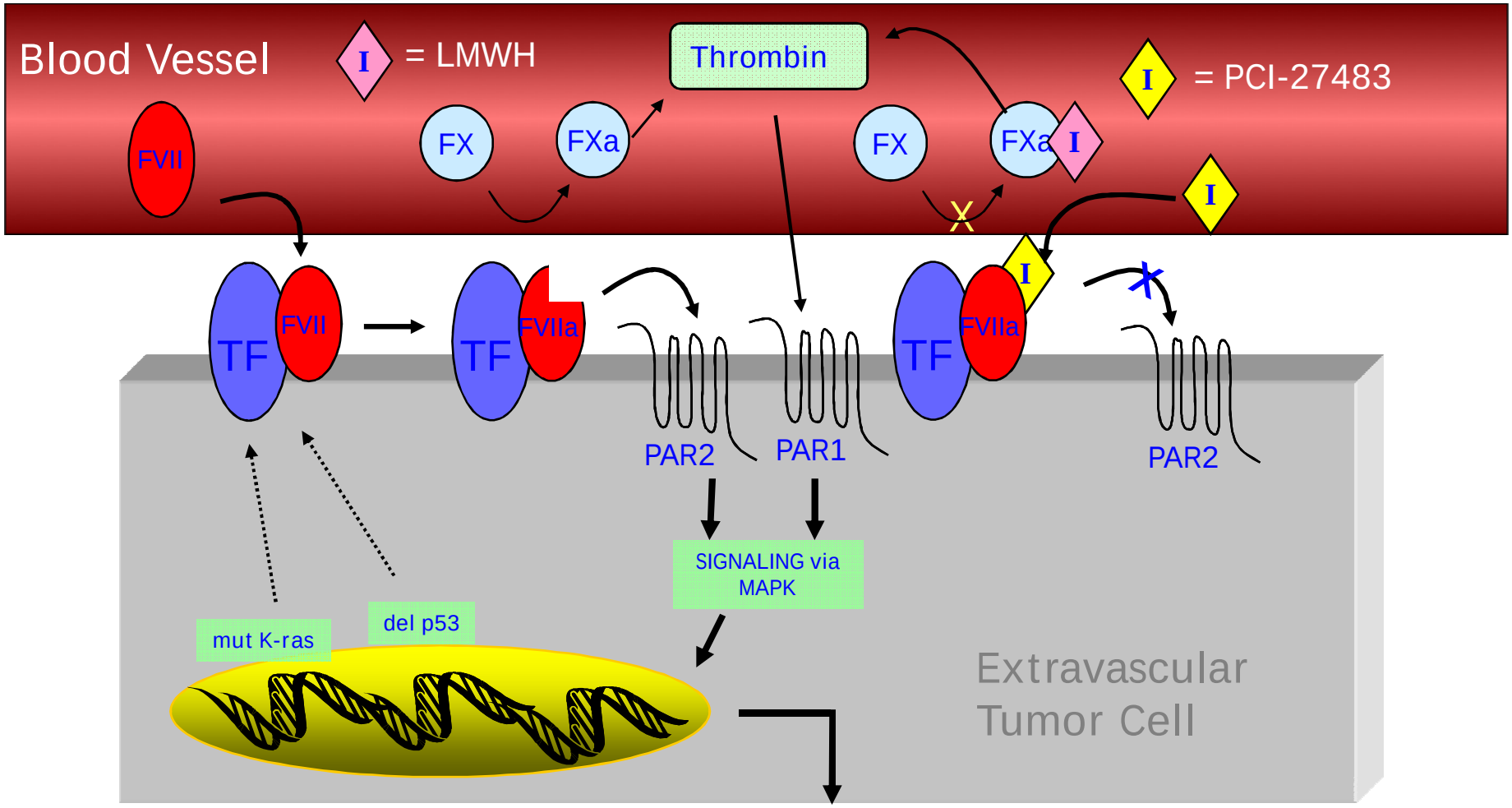
Factor VIIa Pathway's Dual Role

Oncogene Activation / Loss of Tumor Suppressor Genes



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Validation Studies on Target

Overexpression, Prevalence, VTE incidence

Tissue factor expression is prevalent in numerous tumor types by IHC

Breast	Colon	Lung, NSC	Prostate	Ovary	Pancreas
1	1	0	0	0	3
1	1	1	2	0	0
1	2	1	0	2	2
0	3	0	2	0	3
0	0	2	0	0	1
0	0	0	0	0	1
0	0	1	1	0	0
0	2	2	3	2	2
1	0	2	4	0	3
2	0	1	4	0	3

Normal epithelium	0	0	0	1	0	0
Overexpression Δ+1 (% tumors)	50	30	70	50	20	80
Overexpression Δ+2 (% tumors)	10	10	30	30	20	60

N=10

0 1 2 3 4

Venous Thromboembolism in Cancer is a Significant Clinical Event

Cancer site	Prevalence (%)
All malignancies	10 - 15
- Pancreas	28
- Lung	27
- Stomach	13
- Breast (post menopausal)	3 - 8
- Prostate	2

From: Hillen HF. Ann oncology 2000;11 Suppl 3:273-6

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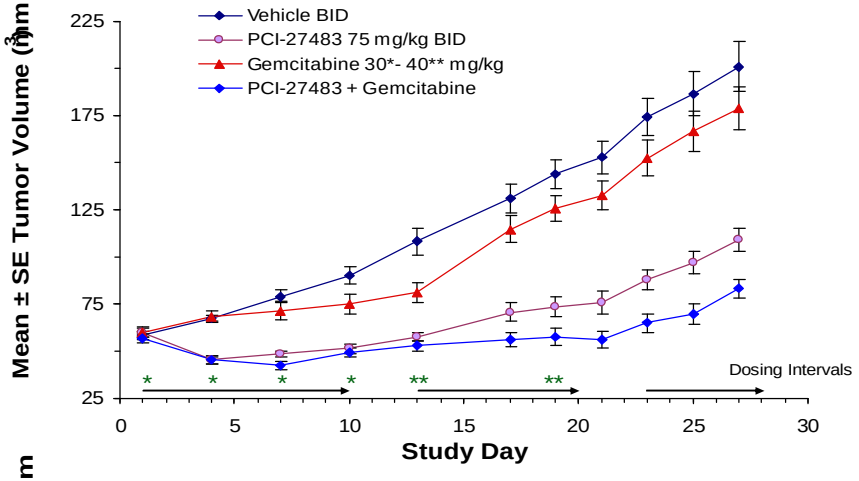
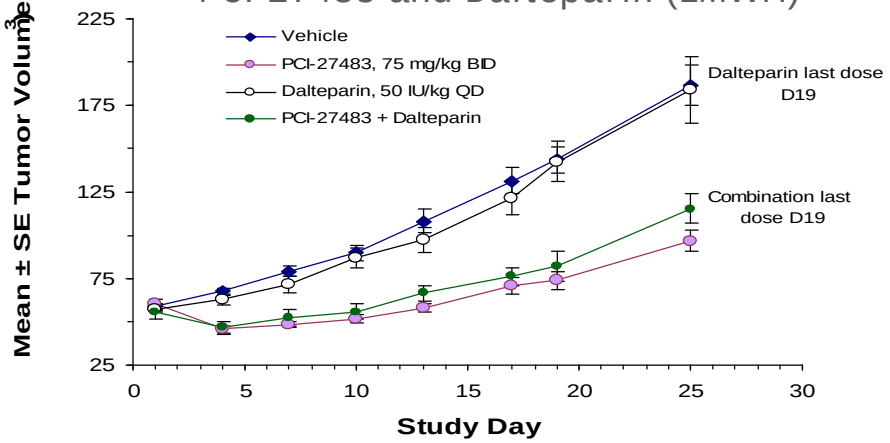
Strong preclinical activity in animal models

BxPC3 Pancreatic Tumor Xenografts
PCI-27483 and Gemcitabine



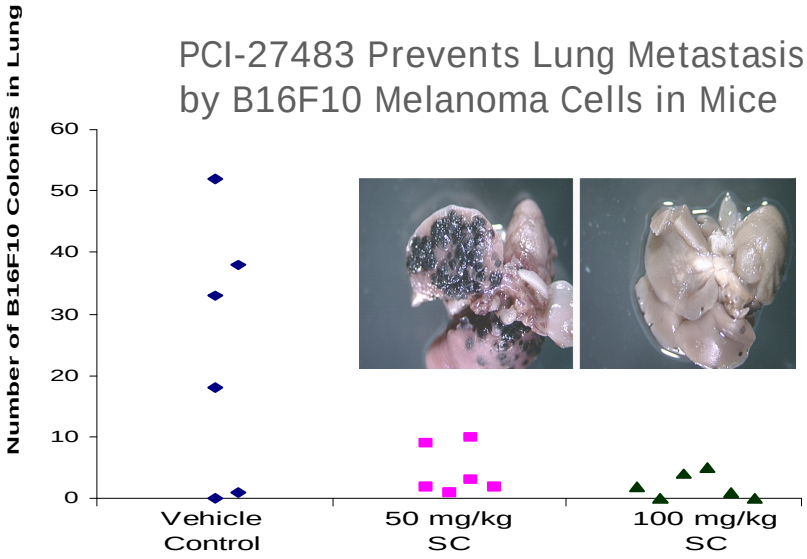
PCI-27483 and Dalteparin (LMWH)



Tumor Growth Inhibition:

- 16.7% with gemcitabine only
- 71.3% with PCI-27483
- 89.7% with PCI-27483 plus gemcitabine

PCI-27483 Prevents Lung Metastasis by B16F10 Melanoma Cells in Mice



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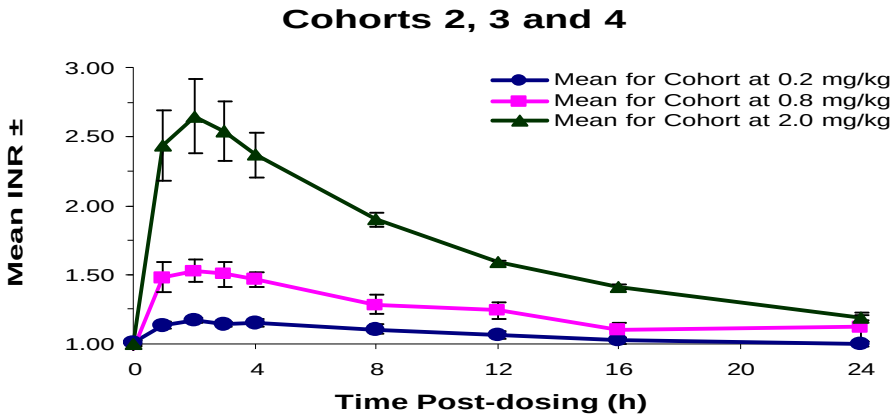
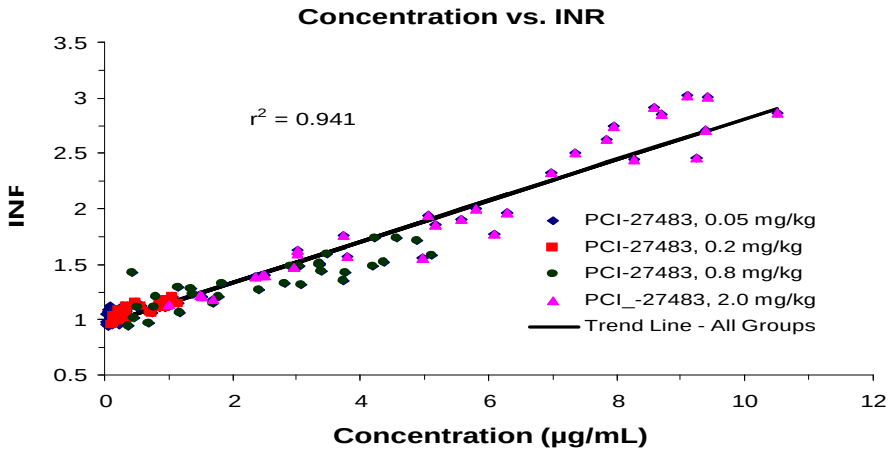
Phase I Study with FVIIa Inhibitor PCI-27483

- Phase I complete
- Single subcutaneous doses: 0.05, 0.20, 0.80 and 2.0 mg/kg
- No adverse effects at any dose level
- No pain at injection site
- Mean peak INR of 2.7 obtained at 2.0 mg/kg
- INR response correlates with drug's plasma concentrations
- Phase II to begin Q2 '09

Precise control of coagulation in Phase I



Predictable scaling of anti-coagulation



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Patent Estate

Strong patent estate with:

148 patents issued or pending with global coverage in major markets

- BTK- 37
- HDAC- 42
- Factor VII 19
- MGd- 50

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Financial Overview Pre Rights Offering

Snapshot:

- Cash at the end of March 2009, including the Servier payment, approximately $22M
- $4M of guaranteed R&D payment from Servier in the next 2 years, with an additional $24.5M upon the achievements of certain milestones
- $24M expected proceeds from the Offering
- Quarterly cash burn about $5M - $6M
- Shares Outstanding prior to the Offering: 27,500,000
- Ownership of Insiders over 30%

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The Rights Offering

- Equity raise of up to $24 Million in the Offering. Up to 18,750,000 newly issued shares. Each subscription right entitles record holders, as of July 15, 2009 to purchase 0.6808 shares at a price of $1.28 / share.
- Example: A Record Holder owns 10,000 shares. Offering enables a purchase of 6,808 shares at $1.28/share, for an aggregate price of $8,714.24
- Subscription Period ends July 31, 2009. Funds need to be received by the Transfer Agent at that time.
- The Company has filed a Registration Statement (including a Prospectus) with the SEC for the Offering. Before you invest you should read the Prospectus in the Registration Statement (File No. 333-159618) and other documents the Company filed with the SEC about the Company and the Offering.
- Please contact Georgeson Inc., the Information Agent, for information relating to the Offering or to receive a copy of the Prospectus. Phone: 800-279-5722. You can also get a copy on the SEC's website under www.sec.gov.

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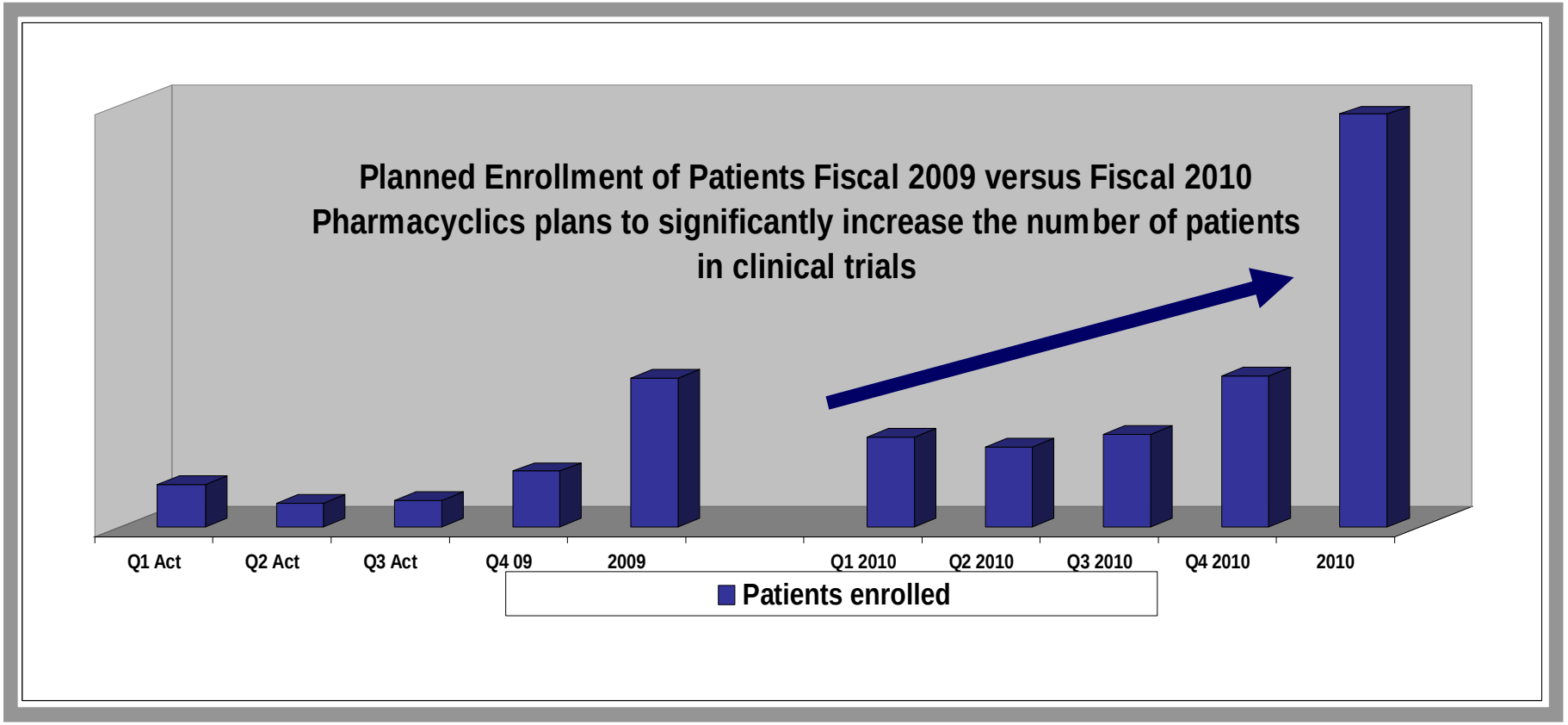
Fiscal 2009 vs 2010 Patient Enrollment



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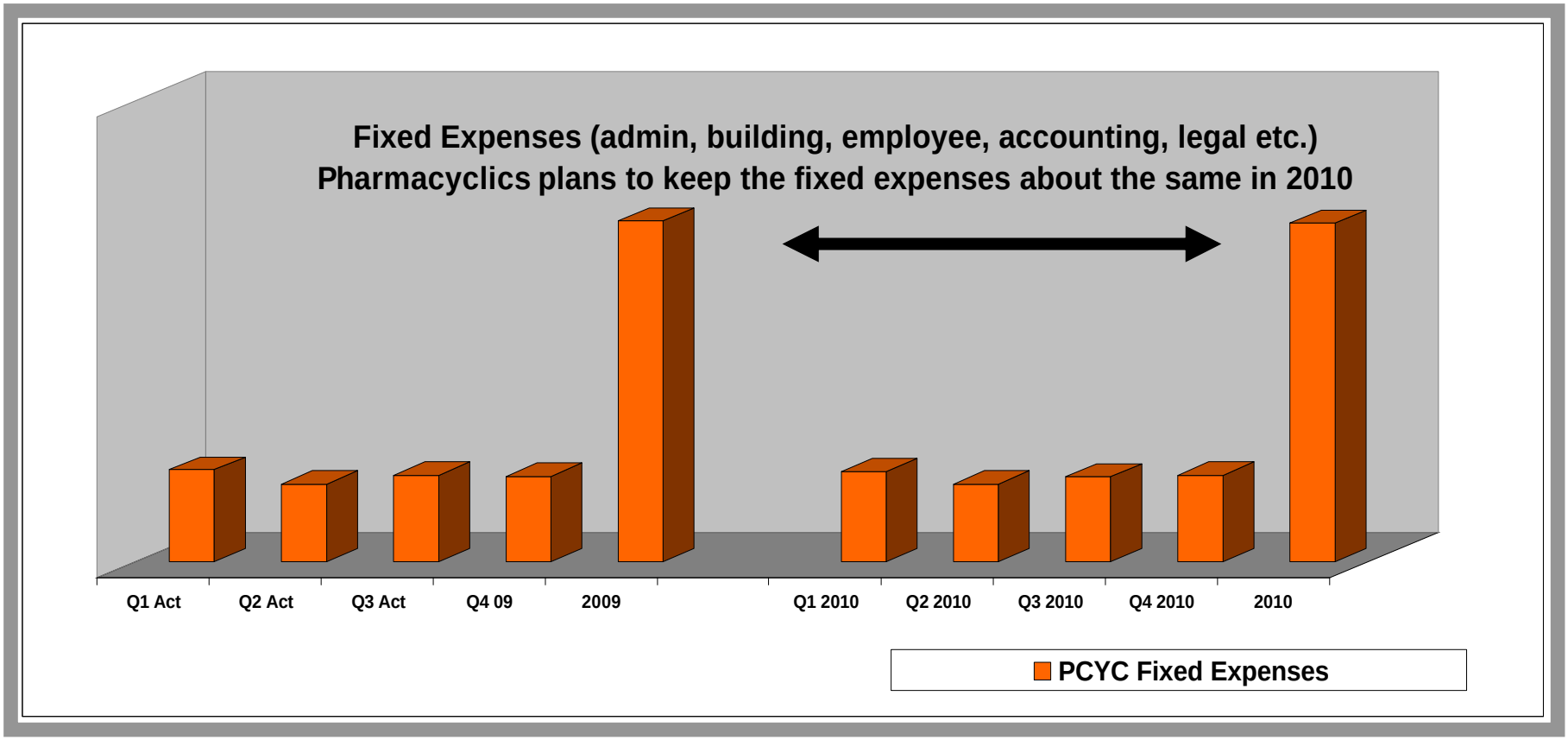
Fiscal 2009 vs 2010 Fixed Expenses



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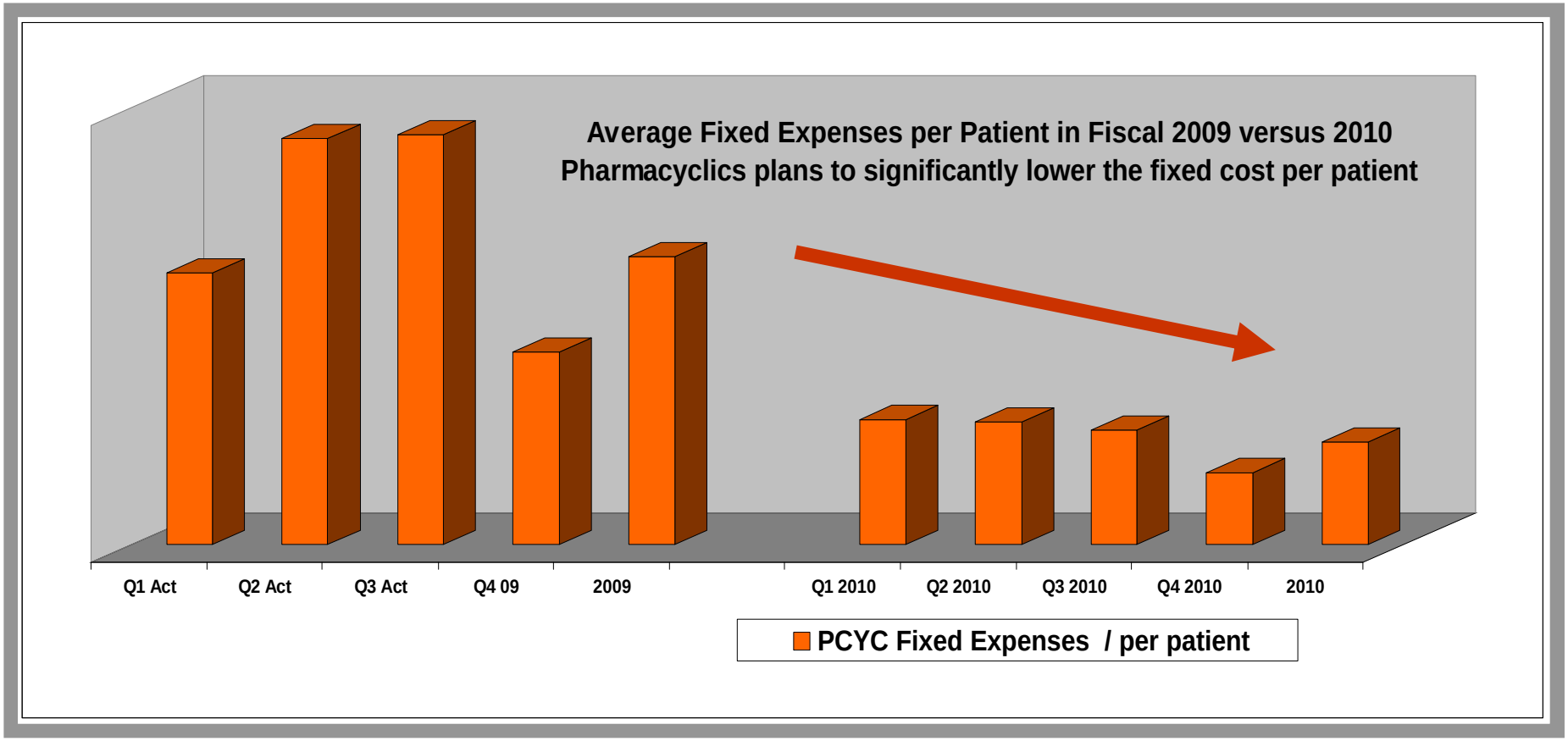
Fiscal 2009 vs 2010
Fixed Expenses per Patient



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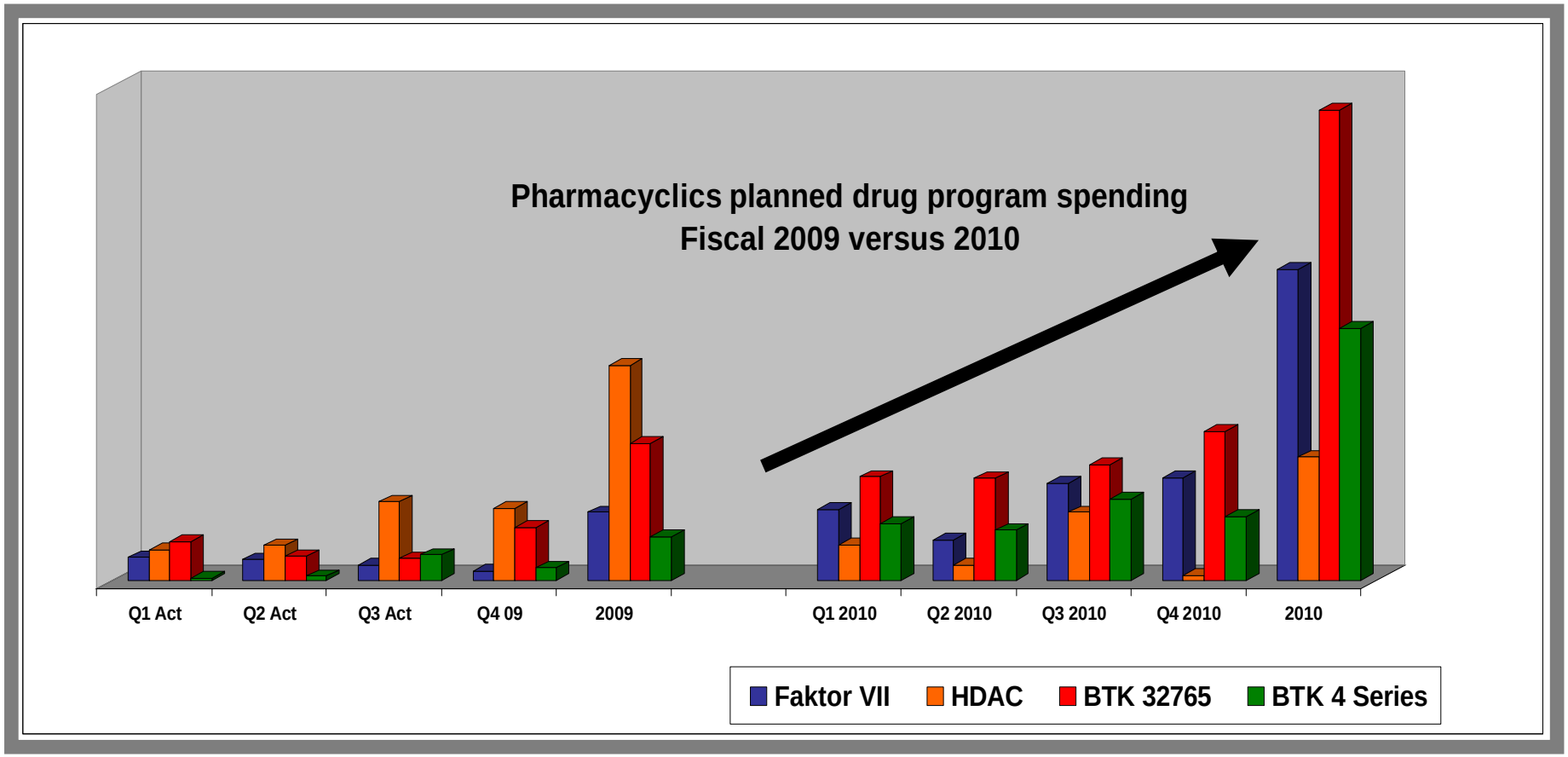
Fiscal 2009 vs 2010
Program related Expenses



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What we discover today……

creates a wave of change for

a better tomorrow

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