2016 - A Clear Path Forward
Advanced Epigenetics Technology Creating Therapeutics for Oncology, Autoimmune & Animal Health Diseases
Todays Agenda for Zenith Epigenetics

- 1. Corporate profile and structure review
  Slides 3-5
- 2. Epigenetic mechanism & indication potential
  Slides 7-13
- 3. Zen-3694 and Prostate Cancer
  Slides 15-17
- 4. Historic and development timelines
  Slides 19-21
- 5. Expanded opportunities
  Slides 23-25
- 6. Market cap valuation & milestones
  Slides 27-29

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Suite 300, 4820 Richard Road S.W. Calgary, AB, Canada T3E 6L1
Tel: (403) 254-9252, Fax:(403) 256-8495, http://www.zenithepigenetics.com
## Share structure profile

<table>
<thead>
<tr>
<th>Founded</th>
<th>Corporate spin out from Resverlogix in June 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>Private – Considering a US market IPO</td>
</tr>
<tr>
<td>Cash Raised 2014/15</td>
<td>Approx. $19,500,000 @ $1.00 USD per share</td>
</tr>
<tr>
<td>Enterprise Value est.</td>
<td>$110 MM</td>
</tr>
<tr>
<td>Shares Outstanding</td>
<td>99,042,045 shares outstanding</td>
</tr>
<tr>
<td></td>
<td>Approximately 111,000,000 fully diluted</td>
</tr>
<tr>
<td>Cash Burn</td>
<td>$1.6MM per quarter - Current</td>
</tr>
</tbody>
</table>
Development breakthroughs
Zenith’s biology advancements surpass competition. 2013-2014

1st FDA approved IND for human clinical
Without extensive cardio monitoring reviews faced by competitors: July 2014

# 1 Oncology unit in the USA accepts lead investigator position
Memorial Sloan Kettering. Sept 2014

Challenges
Prior to the Phase 1 launch an intellectual Property issue arose. October 2014

2014

Change of plans
Intellectual Property (IP) published allowing the advancement of our superior 2nd generation drug. Jan 2015

Strategy
Two replacement compounds have been selected ZEN-3694 & ZEN-3717. April 2015

Partnership
Zenith locks in potential $200MM plus flowthrough royalties from the RVX/Hepalink deal July 2015.

Future course
Internal development, regional licensing and co-development deals will fuel value creation. 2015 - 2016
Epigenetics Mechanism and Pre-Clinical Results

- **1. Corporate profile and structure review**
  Slides 3-5

- **2. Epigenetic mechanism & indication potential**
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- **3. Zen-3694 and Prostate Cancer**
  Slides 15-17

- **4. Historic and development timelines**
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- **5. Expanded opportunities**
  Slides 23-25

- **6. Market cap valuation & milestones**
  Slides 27-29
3. Epigenetics, the mechanism behind our approach

- Early Epigenetic Approach
- Advanced Epigenetic Approach
Zenith’s 3rd generation BETi - unique clinical strategy, larger markets, novel combinations, & regional deals

1. 1st Gen BETi Clinical Targets
   First level clinical programs are hampered by extensive CV safety monitoring and/or suboptimal drug properties

2. 2nd Gen Cleaner Safety Profiles
   Both non-benzodiazapine approach has already proven acceptance by FDA regulators

3. Expanded Opportunities
   Zenith’s advanced has enabled expansion to Solid Tumors, Autoimmune, 3rd gen Heme malignancies and animal health

Current clinical programs

Mainly Heme malignancies
Merck (Oncoethix), Constellation, GSK, Tensha

2nd generation - All comers, Heme and solid (Bayer, Gilead, BMS, Incyte, Abbvie)

3rd generation Zenith program
Zenith’s BRD4 target, is directly involved in the resistance mechanisms of several types of anti-cancer therapies.

Resistance to several standard of care treatments does not impede sensitivity to BETi.
BET inhibitors have the potential to be important combination agents with existing therapies

Lymphoma
- Rituximab (CD20)
- Ibrutinib (BTK)
- CHOP
- Bortezomib
- Everolimus (mTOR)

AML
- Cytarabine
- Idarubicin
- Panobinostat (HDAC)
- Quizartinib (FLT3)

Melanoma
- Dabrafenib (BRAF)
- Trametinib (MEK)

Lung cancer
- Trametinib (MEK)
- Crizotinib (ALK)
- Everolimus (mTOR)

Breast cancer
- Tamoxifen (ER)
- Everolimus (mTOR)
- Cisplatin
- Olaparib (PARP)
- Trametinib (MEK)
- Lapatinib (EGFR)
- Olaparib (PARP)

Prostate cancer
- Abiraterone (CYP17)
- Enzalutamide (AR)

BRD4 target, is directly involved in the resistance mechanisms of several types of anti-cancer therapies
ZEN-3694 synergizes with several standard of care and targeted therapy drugs in different cancers.
ZEN-3694 Promotes Anti-tumor immune responses
BETi modulate multiple immuno-oncology targets
PanBETi inhibits PD-L1 expression in cancer cells in vitro and works well in combination with anti-PD-1 Mab.
Effecting the Cancer Resistance Mechanism

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General info regarding the unmet need in metastatic Prostate Cancer (mCRPC)

Current Market and Unmet Need
• ~135,000 annual mCRPC patients in the US/EU alone – Majority receive enzalutamide or abiraterone as first line treatment
• **Over $3 billion in sales in 2014** for first line enzalutamide and abiraterone
• Patients are becoming resistant to these therapies, no effective second line therapy yet
• Continuing high mortality rate in resistant mCRPC (50% 1 year survival)

Opportunity for ZEN-3694
• 2\(^{nd}\) line single agent treatment, KOLs agree that there is no effective 2\(^{nd}\) line treatment
  • ~60,000 2\(^{nd}\) line treatment eligible patients in US/EU alone
• Expand into 1\(^{st}\) line treatment in combination with enzalutamide or abiraterone
ZEN-3694 has proven significant potential to work in patients developing mCRPC resistance to enzalutamide.

ZEN-3694 works down stream of current therapies.

ZEN-3694 works where resistance to existing lead drugs, like Enzalutamide, has evolved.

The combination of ZEN-3694 & today's top medications show strong synergizes and expected reduction to resistance.

The diagram illustrates the interaction of ZEN-3694 with current therapies such as Enzalutamide, showing the potential of ZEN-3694 to work downstream of current therapies.

Graph showing cell viability in VCAP P3 + 0.1 nM R1881 treated with various concentrations of ZEN003694 with Enzalutamide (3 Day).

Graph presentation highlights % proliferation compared to DMSO-treated control with concentration (uM) on the x-axis and % proliferation compared to DMISO-treated control on the y-axis.
VCAP curve shift: Enzalutamide and ARN-509 sensitive, ZEN003694 highly synergistic.

<table>
<thead>
<tr>
<th>uM ZEN3694</th>
<th>IC50 uM of Enzalutamide in VCAP + 0.1 nM R1881</th>
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<tbody>
<tr>
<td>0</td>
<td>4.98</td>
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<tr>
<td>0.1</td>
<td>0.58</td>
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<td>1</td>
<td>0.09</td>
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<tr>
<td>10</td>
<td>&lt;0.09</td>
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</table>

<table>
<thead>
<tr>
<th>uM ZEN3694</th>
<th>IC50 uM of ARN-509 in VCAP + 0.1 nM R1881</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>2.24</td>
</tr>
<tr>
<td>0.1</td>
<td>0.36</td>
</tr>
<tr>
<td>1</td>
<td>0.02</td>
</tr>
<tr>
<td>10</td>
<td>&lt;0.02</td>
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</tbody>
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Combination Therapy Potential and Design

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### ZEN-3694 IND timeline: IND targeted for 11/2015

<table>
<thead>
<tr>
<th>1Q 2015</th>
<th>2Q 2015</th>
<th>3Q 2015</th>
<th>4Q 2015</th>
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<tbody>
<tr>
<td><strong>In vitro and vivo pharmacology</strong></td>
<td><strong>DMPK</strong></td>
<td><strong>Translational Biology</strong></td>
<td><strong>ZEN-3694 selected as DC</strong></td>
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<tr>
<td><strong>Translational Biology</strong></td>
<td><strong>5d rat PK/Tolerability</strong></td>
<td><strong>API Process and Analytical Dev. Tox Lot</strong></td>
<td><strong>14d DRF Tox &amp; Report</strong></td>
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<tr>
<td><strong>API Process and Analytical Dev. Tox Lot</strong></td>
<td><strong>14d DRF Tox &amp; Report</strong></td>
<td><strong>Safety Pharm</strong></td>
<td><strong>GLP Tox &amp; Report</strong></td>
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<td><strong>GMP API &amp; DP</strong></td>
<td><strong>GLP Tox &amp; Report</strong></td>
<td><strong>Clinical Ops and Clinical Dev. Planning</strong></td>
<td><strong>GMP API &amp; DP</strong></td>
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<tr>
<td><strong>Translational Medicine</strong></td>
<td><strong>Clinical Ops and Clinical Dev. Planning</strong></td>
<td><strong>ZEN-3694 selected as DC</strong></td>
<td><strong>Clinical Ops and Clinical Dev. Planning</strong></td>
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Zenith’s List of Publications – Growing Awareness

**PUBLICATIONS**


**ORAL PRESENTATIONS**

1. Campeau, E. Pre-clinical characterization of ZEN-3694, a novel BET bromodomain inhibitor. *Presentation to be given at Discovery on target: targeting epigenetic readers and chromatin remodelers, September 21-23, 2015*.


**POSTERS**


Early clinical development plan for ZEN-3694

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
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<tbody>
<tr>
<td></td>
<td>2H</td>
<td>1H</td>
<td>2H</td>
</tr>
<tr>
<td></td>
<td>1H</td>
<td>2H</td>
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</tr>
</tbody>
</table>

**IND**
- On track file late 2015
- Top investigators already lined up

**Single Agent Dose Escalation**
- CRPC

**Combination Dose Escalation**
- (+ enzalutamide)
- CRPC

**Expansion cohorts (CRPC)**

**Expansion cohorts (ER+ breast, TNBC, H&N)**

**Expansion cohort (AML, DLBCL)**

**Solid Tumors Phase 1**

**Hematological Malignancies Phase 1**

- UCSF selected as lead Phase 1 site (Eric Small and Rahul Aggarwal)
- Confirmed Prostate Cancer Clinical Trial Consortium (PCCTC)
- MSKCC (Howard Scher) to lead translational

Proof of Concept
Competitive Landscape

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Parallel development programs to expand and speed up revenue streams

Early revenue opportunities include regional licensing deals, orphan indications and animal health.

**Expediting Orphan Clinical Trials**
BRD4 research has indicated numerous orphan drug opportunities.
*Pathway 2-3 years*

**Animal Health**
BRD4 research has indicated numerous opportunities for both companion and food animals.
*Pathway 1-2 years*

**Regional deals**
Co-development and Licensing Opportunities
Working with regional or global pharma’s in countries with regional issues such as China’s expanding cancer rates.
*Pathway 1-4 years*
Continued Growth Through Mergers and Acquisitions

- **Zoetis**: $4,561 (5.2%)
- **Merck**: $3,362 (-1.1%)
- **Merial**: $2,636 (-5.9%)
- **Elanco**: $2,152 (5.6%)
- **Bayer**: $1,735 (3.6%)
- **Boehringer**: $1,421 (4.1%)
- **Novartis**: $1,171 (7.4%)
- **Virbac**: $978 (9.4%)
- **Ceva**: $827 (6.0%)
- **Vetoquinol**: $398 (3.8%)

Elanco moves into 2nd with Novartis acquisition.
Private Placement & Corporate Details

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Market Cap Valuation Rationale

1. **Oncoethix was acquired by Merck in January 2015 - $375MM**
   - Oncoethix only has a single BETi drug, OTX-015
   - Limited efficacy in Phase 1 Trials
   - It is a Benzodiazepine program which have been hampered by extensive cardiovascular safety in clinical monitoring
   - $110MM payment upfront

2. **Epizyme’s 2012 pre-clinical licensing deal nets $90MM**
   - Epizyme’s 2013 IPO market cap was approximately $400MM
   - Current market cap is $677MM
   - Two Phase 1 programs in hematology indications
   - Both programs are based on older “writer” Epigenetics
   - Clinical trial results have disappointed

3. **Constellation received $95MM upfront in a 2012 deal**
   - The Genentech development deal involved non-Bromodomain epigenetics with a option to buy the Bromodomain program
   - A phase 1 program with no published data
   - A Benzodiazepine program hampered by extensive cardiovascular safety in clinical monitoring

4. **Market Validation showed a $90MM value in 2013**
   - On June 3rd, 2013 upon the spin out of Zenith Epigenetics from Resverlogix Corp the RVX stock adjusted by $90MM

**Zenith Epigenetics – $100MM**

- Zenith has priced its current financing very competively compared to existing markets for less effective technologies
- Based on recent deal history and advanced biology Zenith management expect a rapid value increase for investors
Zenith Milestone Targets

**Development targets**
- ✔ Publish new Intellectual Property
- ✔ Select a new lead molecule ZEN-3694
- ✔ Select a new backup molecule – ZEN-3717
- ✔ File a 2nd IND with the FDA

**Clinical targets**
- ✔ Top investigators recruited as leads for the program
- ✔ Initiate a clinical trial for solid tumors
- ✔ Reach proof of concept by 2H 2016
- ✔ Expand to include combination therapies

**Corporate development**
- IPO on the Nasdaq
- Regional licensing in China and other countries
- Co-development partnering
- New BET Bromodomain opportunities