Resverlogix Corp. Corporate Presentation April 2019

Forward Looking Statement

This presentation may contain certain forward-looking information as defined under applicable Canadian securities legislation, that are not based on historical fact, including without limitation statements containing the words "believes", "anticipates", "plans", "intends", "will", "should", "expects", "continue", "estimate", "forecasts" and other similar expressions. In particular, this presentation may include forward looking information relating to the Phase 3 BETonMACE clinical trial, vascular cognitive dementia, chronic kidney disease, fabry disease and pulmonary arterial hypertension clinical trials, and the potential role of apabetalone in the treatment of high-risk cardiovascular disease, diabetes mellitus, chronic kidney disease, end-stage renal disease treated with hemodialysis, neurodegenerative disease, Fabry disease, peripheral artery disease and other orphan diseases. Our actual results, events or developments could be materially different from those expressed or implied by these forward-looking statements. We can give no assurance that any of the events or expectations will occur or be realized. By their nature, forward-looking statements are subject to numerous assumptions and risk factors including those discussed in our Annual Information Form and most recent MD&A which are incorporated herein by reference and are available through SEDAR at www.sedar.com. The forward-looking statements contained in this news release are expressly qualified by this cautionary statement and are made as of the date hereof. The Company disclaims any intention and has no obligation or responsibility, except as required by law, to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Contact

Investor Relations Email: <u>ir@resverlogix.com</u> Phone: 403-254-9252 Website: <u>www.resverlogix.com</u>



Resverlogix at a Glance

- Late-stage clinical biotechnology company that has built a leadership position in epigenetics
- Lead product candidate is Apabetalone, a first-in-class small molecule selective bromodomain extra-terminal (BET) protein inhibitor with broad applicability for cardiovascular, renal and other disease indications
- Phase 3 trial for secondary prevention of MACE in patients with diabetes (type 2) and low HDL reaches targeted 250 events; top line read-out expected early H2 2019
- Attractive safety profile, with over 1,900 patients dosed and eight successful DSMB readouts in Phase 3
- Addresses critical unmet need with 12 million+ patients in top 8 markets
- Robust intellectual property position for composition, use, and manufacturing, with patent life ranging from 2027 to 2034





<u>Apabetalone</u> Indication	Pre-clinical	Phase 1	Phase 2 Ready	Phase 3	Status Est.
Acute Coronary Syndrome (ACS) - BETonMACE					Initiation: 2015 Trial completion estimate: early H2 2019
Vascular Cognitive Dementia*	19% of BETonMAC	E participants in VCD	subgroup		Initiation: H2 2019
Chronic Kidney Disease*	11% of BETonMAC	E participants in CKD) subgroup		Initiation: H2 2019
Fabry disease					Initiation: H2 2019
Pulmonary Arterial Hypertension					Initiation: H2 2019

Addressing Critical Unmet Needs



Cardiovascular Disease Diabetes Epidemic Still the number one killer of both males and females and Europe (EUR) costs the US healthcare system over \$500B per year 56 North America and Carribean 37 million (NAC) **Current CVD Therapies - 30%** million 35 • Statins are the top South East Asia North Africa (SEA) medication used to 60% Middle East and treat CVD North Africa (MENA) **Opportunity** Despite maximized 38 use, current therapies 20 Huge market 24 only manage about South and Central million potential resides America (SACA) million 30% of CVD events Western Pacific in the remaining Africa (AFR) (WP) 60% unmet need in CVD **Diabetes prevalence**; Globally **New LDL** will increase by 55% in management Modulators - 10% 382 the next 30 years, with the Middle east region Several new types of LDL Million showing an increase of modulators are in clinic. **People living with** 96%. Leading are the very diabetes expensive PCSK9's 46% Undiagnosed

Overview of Epigenetics



CHROMATIN FIBRE NUCLEOSOME CHROMOSOME Genes are turned on and off by modifications to the tails of histones, such as acetylation. WRITERS HISTONE TAIL Enzymes that add histone modifications. ERASERS Enzymes that remove READERS **EPIGENETICS** DNA Proteins that bind to istone modifications A mechanism for regulating ar gene activ gene activity independent and protein productio of DNA sequence that determines which genes are turned on or off: o in a particular cell type WRITER ERASER READER in different disease states 0 0 HISTONE MODIFICATION o in response to a physiological stimulus

- The epigenetic code refers to modifications to chromatin components that regulate its activity
- Turning genes on or off is regulated by these modifications
- BET (Bromodomain and Extraterminal Domain) proteins recognize these modifications and turn genes on

COPYRIGHT @ 2012 - RICHARD E. BALLERMANN



Our Differentiated BET Platform



- Resverlogix has discovered compounds that selectively bind the bromodomains of BET proteins
 - Bromodomain selectivity: Resverlogix's Apabetalone selectively targets BD2
 - BET (BRD2, BRD3, BRD4) protein selectivity: Our expertise in medicinal chemistry and epigenetics allows us to identify small molecules that target one or a specified subset of BET proteins
- Our Phase 2 clinical program provided us with what was the only blood bank of BET inhibitor-treated patients in the world
 - In-depth analysis of proteomics, genomics, and pathways revealed advanced knowledge of BET activities
 - The resulting knowledge from these activities provided a level of sophistication around BET that surpasses that of many others working in this area
- The properties of Resverlogix's molecules avoid side effects seen with other BETi
 - BET programs in oncology can tolerate a high degree of side effects due to the nature of the disease being treated
 - Chronic conditions such as cardiovascular disease and renal impairment require treatments with a side-effect profile acceptable for long-term treatment

Unique Mechanism of Action





Rationale for Kidney Disease Program

- RESVERLOGIX
- Apabetalone has demonstrated reductions in alkaline phosphatase (ALP; a strong marker of CKD risk) and improvements in estimated glomerular filtration rate (eGFR) in CKD patients (eGFR < 60 mL/min/1.73m²) with CVD in the phase 2 ASSURE and SUSTAIN trials



Data Presented in Keynote Address at the 2015 American Society of Nephrology Conference, San Diego

- BET inhibition by Apabetalone may have the potential to improve kidney function, as measured by eGFR, in patients suffering from various stages of kidney disease
- Resverlogix is currently investigating the potential for expansion into specific kidney indications:
 - CKD (Stages 3a and 3b) patients, with a history of CVD (Phase 3 BETonMACE subgroup)
 - High Risk CKD Patients on Dialysis (Phase 2b BETonRenal study)



A Phase I, Open-Label, Parallel Group Study to Evaluate the Safety and Pharmacokinetics of a Single Oral Dose of Apabetalone in Subjects with Severe Renal Impairment



Trial demonstrated that Apabetalone has a highly differential effect on protein levels based on disease status, healthy vs sick, reducing a variety of plasma proteins and downregulating pathways activated in the CKD cohort

SOMAscan® Analysis of Plasma Proteome in CKD Patients IPA Canonical Pathways





Wasiak et al., 2017

∆>10% p≤0.05

SOMAscan® Analysis of Plasma Proteome IPA Canonical Pathways: Top 5 Pathways Upregulated at Baseline





12

SOMAscan® Analysis of Plasma Proteome

(Neite) (Neite)

Tri Pathana Collari 1 ni 2 84033.818 sompa Tri Pathana 2017/35-16 Collari 1 126-107

IPA Canonical Pathways: Top 5 Pathways Downregulated with Apabetalone



Wasiak et al., 2017

SOMAscan® Analysis of Plasma Proteome – Phase 1 Trial Apabetalone Reduces CVD and CKD Biomarkers



	Protein Name	Gene	Subjects with CKD (stage IV) (n=8) treated with 100 mg Apabetalone		Matched Control Subjects (n=8) treated with 100 mg Apabetalone	
		Symbol	% ∆ from baseline at 12h	p-value	% ∆ from baseline at 12h	p-value
/	Interleukin-6	IL6		0.05	NS	
/	Interleukin-1 alpha	IL1A		0.01	NS	
Inflammation	Interferon gamma	IFNG		0.04	NS	
	TNF receptor superfamily member 1A	TNFRSF1A		0.05	NS	
	C-reactive protein	CRP		0.04	NS	
	Tumor necrosis factor	TNF		0.02	NS	
Cell Adhesion	P-selectin	SELP		0.04	NS	
	E-selectin	SELE		0.01		0.02
	Intercellular adhesion molecule 1	ICAM1		0.05		0.04
\	Vascular cell adhesion protein 1	VCAM1		0.01	NS	
Matrix	Fibronectin	FN1		0.02	NS	
Remodeling Calcification	Stromelysin-1	MMP3		0.02	NS	
Calcineation	Stromelysin-2	MMP10		0.02	NS	
\backslash	Osteopontin	SPP1		0.01		0.04
/	Plasminogen activator inhibitor 1	SERPINE1		0.04	NS	
T I	Tissue-type plasminogen activator	PLAT		0.01	NS	
Thrombosis	Urokinase-type plasminogen activator	PLAU		0.01	NS	
	D-dimer	FGA/B/C		0.05	NS	
	Urokinase plasminogen activator surface receptor	PLAUR		0.02	NS	

"NS": not significant

Apabetalone reduces markers of inflammation, cell adhesion, matrix remodeling, calcification and thrombosis in the CKD cohort after one dose and 12 hours

Wasiak et al., 2017

14

BET Inhibition Impacts the Pathways that Drive Cardiovascular Disease and Kidney Diseases



Apabetalone, a bromodomain extra-terminal (BET) protein inhibitor, regulates the expression of genes and restores the function of pathways underlying the pathogenesis of CVD and kidney disease



Critical Conclusions from our Phase 2 CVD Trials (ASSERT, ASSURE and SUSTAIN) Nicholls et al. 2018 Am J Cardiovasc Drugs



Days Since Randomization

16

RESVERLOGIX

220

BETonMACE Phase 3 Trial

Trial completion expected early H2 2019





The study is an event-based trial and continues until 250+ narrowly defined MACE events have occurred

Key inclusion criteria

- Type II Diabetes Mellitus
 - HbA1c > 6.5% or history of diabetes medications
- CAD event 7 days 90 days prior to screening
 - Myocardial infarction (MI) or unstable angina with or without percutaneous coronary intervention to manage acute coronary syndrome
- HDL < 1.04 for males and < 1.17 for females



	High Risl	Acute Coronary Syndrome (ACS) Patients with a Type II Diabetes Mellitus (DM) Comorbidity and Low High-Density Lipoprotein Cholesterol (HDL-C)					
Phase 3 BETonMACE	Efficacy Endpoints	 Primary endpoint: Time to the first occurrence of Major Adverse Cardiovascular Events (MACE) defined as CVD death; non-fatal myocardial infarction (MI); non-fatal ischemic stroke Secondary endpoints include: hospitalization for unstable angina, emergency revascularization procedures, and all-cause mortality 					
	Subgroup Analysis	 Assess potential improvement in kidney function, MACE, and renal serious adverse events (SAEs) (one time 40% or greater reduction in eGFR or doubling of serum creatinine) in population with baseline estimated GFR<60mL/min (stage 3+ CKD) Assess potential cognitive improvement based on a MoCA (Montreal Cognitive Assessment) in patients older than 70 years of age 					
	Expected Efficacy Outcomes	 30% relative risk reduction of MACE with statistical significance vs placebo with average treatment duration of 22- 24 months of treatment on top of current standard of care Significant or trending results in defined subgroups such as CKD and cognition 					
Unique Selling Points		 Novel mechanism of action with multi-factorial approach for the reduction of MACE in high risk ACS patients Orally available small molecule with low projected COGS and price compared to monoclonal antibodies and peptides Potential for alternate indications and increased accretive value based on subgroup analysis of BETonMACE, proteomic analyses of serum data from past Phase 2 trials and early pre-clinical work 					

BETonMACE Commenced November 2015





Apabetalone has already been tested in over 1,900 patients in 18 countries around the world, 14 countries have already approved Phase 3 usage

BETonMACE Clinical Trial Analysis Points and Time Lines

- Last Study Visits (LSV) have commenced (<u>April 18 NR</u>); sites with the most patients enrolled will commence first, followed by the others
 - Allows for additional time to build MACE events to ~260 or greater while not slowing down the trial's move towards final database lock
- Three to four weeks after the LSV, a post-treatment follow-up visit will take place to ensure that any safety issues continue to be monitored
- In parallel, DSMB will continue to adjudicate remaining and ongoing potential MACE events. Current adjudicated events exceed 90% of the 250
- All patients who have discontinued the study will also be contacted for an unscheduled follow-up visit or call to determine medical status
- Database Lock (DBL) will occur after the last patient's final visit and the last query is resolved
- Approximately two weeks after DBL, the primary endpoint and additional secondary and exploratory endpoints are expected to be announced
- H2 2019 and beyond full outcomes, pre-specified endpoint data, safety results, and clinical implications will be reported and published



Committee Members for BETonMACE



Clinical Advisory Board

Prof. Kausik K. Ray, BSc (hons), MBChB, MD, MPhil (Cantab), FACC, FAHA, FESC, FRCP; Chairman Imperial College

Dr. Gregory G. Schwartz, MD, PhD University of Colorado Denver

Dr. Stephen Nicholls, MBBS, PhD South Australian Health and Medical Research Institute

Dr. Henry N. Ginsberg, MD, FAHA Columbia University

Dr. Peter P. Toth, *MD*, *PhD*, *FAAFP*, *FICA*, *FAHA*, *FNLA*, *FCCP*, *FACC CGH Medical Center*

Dr. Kamyar Kalantar-Zadeh, MD, MPH, PhD, FAAP, FACP, FASN, FAHA, FNKF University of California Irvine

Recent High Profile Publications

Apabetalone downregulates factors and pathways associated with vascular calcification – **Atherosclerosis 2018**

The Effect of Bromodomain and Extra-Terminal Inhibitor Apabetalone on Attenuated Coronary Atherosclerotic Plaque: Insights from the ASSURE Trial – **American Journal of Cardiovascular Drugs 2018**

Apabetalone Mediated Epigenetic Modulation is Associated with Favorable Kidney Function and Alkaline Phosphatase Profile in Patients with Chronic Kidney Disease – **Kidney and Blood Pressure Research 2018**

Benefit of Apabetalone on Plasma Proteins in Renal Disease-**KI Reports 2018**

Selective BET Protein Inhibition with Apabetalone and Cardiovascular Events: A Pooled Analysis of Trials in Patients with Coronary Artery Disease- **American Journal of Cardiovascular Drugs 2017**

Downregulation of the Complement Cascade In Vitro, in Mice and in Patients with Cardiovascular Disease by the BET Protein Inhibitor Apabetalone (RVX-208)- **Journal of Cardiovascular Translational Research 2017**

RVX-208, a BET-inhibitor for treating atherosclerotic cardiovascular disease, raises ApoA-I/HDL and represses pathways that contribute to cardiovascular disease-Atherosclerosis 2016

Our First Three Initial Opportunities Top 8 Markets (U.S., Top 5 EU, Japan & Canada)



Apabetalone is a first-in-class, small molecule that is a selective BET inhibitor that produces a specific set of biological effects with important benefits while maintaining a well described safety profile. It is currently being evaluated for the following indications:



High Risk Acute Coronary Syndrome (ACS) Patients with a Type II Diabetes Mellitus (DM) Comorbidity and Low High-Density Lipoprotein Cholesterol (HDL-C)



1.9 M Patients by 2032



High Risk Chronic Kidney Disease (CKD) Patients (Stages 3-5, Pre-Dialysis) with a Diabetes Mellitus Comorbidity and a History of Cardiovascular Disease (CVD)



6.6 M Patients by 2032



Dementia and Vascular Cognitive Dementia (MoCA score < 26) in Elderly (>65 years) Patients with Diabetes Mellitus Comorbidity and a History of CVD



3.2 M Patients by 2032

Additional Indications

- Complement Mediated Disease: orphan indication
- Neurofibromatosis Malignant Peripheral Nerve Sheath Tumors (MPNST): orphan indication
- Pulmonary Arterial Hypertension: orphan indication
- Muscular Dystrophy/Facio Scapulo Humeral Dystrophy: orphan indication
- Fabry Disease: orphan indication
- Vascular Cognitive Dementia
- HIV eradication



Business Development Strategy

- Partnered Apabetalone in Greater China (China, Hong Kong, Taiwan and Macau) with Shenzhen Hepalink Pharmaceutical, a ~US\$4 billion market cap company listed in China
 - US\$35M initial equity investments in Resverlogix (total now exceeds US\$100M)
 - >US\$400M in projected future sales milestones and licensing royalties
 - Hepalink responsible for all development costs in Greater China
- Exclusive licensing agreement with Medison Pharma Ltd. for Apabetalone in Israel
 - >US\$100M in projected licensing royalties
- Discussing licensing opportunities in the Middle East / North Africa
- Exploring global licensing options (ex-Greater China and Middle East) for Apabetalone post Phase 3 readout





Highlights



- Global leader in epigenetic research and drug development
- Apabetalone is a first-in-class BET inhibitor with potentially broad applicability across multiple disease indications
- Addresses critical unmet need with 12 million+ patients in top 8 markets
- Phase 3 trial for high risk CVD patient population reaches targeted 250 MACE events; top line read-out expected early H2 2019
- Well established safety profile to date, over 1,900 patients treated with Apabetalone with no significant safety issues
- Proven track record of funding development while minimizing shareholder dilution
- Robust intellectual property position for composition, use, and manufacturing, with patent life ranging from 2027 to 2034

Appendix

Management Team





Donald McCaffrey **President & Chief Executive Officer**

- Co-founded Resverlogix in 2001 with Dr. Norman Wong
- Has over 40 years of corporate management experience, including over 18 years in drug discovery & development



Dr. Norman C.W. Wong, M.D., FRCP, Chief Scientific Officer & Co Founder Co-founded Resverlogix in 2001 with

- Donald McCaffrey Researches molecular actions of
- hormones related to the regulation of gene expression and pathogenesis of diabetes mellitus

A. Brad Cann, CA, Chief Financial Officer

- Has over 20 years of experience in a variety of financial and business roles
- Leads the Company's expanding financial activities supporting advancing scientific and clinical development



Dr. Ewelina Kulikowski, PH.D., SVP, Research & Development • Joined in 2005 as Director of Research

and Development • Has been Involved in the development of lead drug RVX-208 from its discovery through to Phase 3 clinical



- Dr. Michael Sweeney, M.D., SVP, **Clinical Development**
- Cardiologist with extensive experience in pharmaceutical product development and marketing
- Has over 30 years in the pharmaceutical industry, including 11 vears at Pfizer



Kenneth Lebioda, BA, SVP, Business & Corporate Development

 Has over 30 years of experience in the innovative pharmaceutical industry with leading global companies such as Bristol-Myers Squibb, Hoechst Marion Roussel and Marion Merrell Dow



Dr. Jan O. Johansson, M.D., PH.D., SVP, Medical Affairs

development

• Has had a distinguished 35 year career in academia and in the pharmaceutical industry of which including various companies with expertise in the cardiometabolic and neurological disease therapeutic area



Dr. Henrik C. Hansen, PH.D., VP, Intellectual Property

- Has 20 years in drug discovery & development experience.
- Areas of expertise also include medicinal chemistry, process development and manufacturing of drug substances and products for clinical use



Paul Moon. CPIR VP. Investor Relations and Communications

• Has over 25 years of public company experience working in multiple industries, including: technology, financial services, real estate. international mining, and oil and gas



Apabetalone Clinical Trials to Date





BET Literature Impact Growing CVD and Renal Risk



OPEN@ACCESS Freely available online RVX-208, an Inducer of ApoA-I in Humans, Is			i a BET	Kidney International Reports Articles & Issues ~ For Authors ~ For Readers ~ For Advertisers ~ Companion Journals ~				
Kidney	Kidney Blood Press Res 2018;43:449-	© 2018 The Author(s)	 h Attwell¹, t K. Suto², 	< Previous Article	All Content	Search Press	Advanced Search Next Article >	
Blood Pressure Research	Published online: March 22, 2018 Published by S. Karger AG, Basel www.karger.com/kbr Accepted: March 13, 2018 www.karger.com/kbr This article is licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International license (CC BV-NC-ND) (http://www.karger.com/Services/OpenAccessLicense). Usage and distribution for commercial purposes as well as any distribution of modified material requires written permission.		aryland, United States of An	Article in Press Benefit of Apabetalone on Plasma Proteins in Renal Disease				
				<u>Sylwia Wasiak⁵, Laura M. Tsu Jahagirdar, Kamyar Kalantar- Wong, Ewelina Kulikowsk</u>	Zadeh, Richard Robson ⁶ , Mic			
Apabetalone Mediated Epigenetic Modulation is Associated with Favorable Kidney Function and Alkaline Phosphatase			ELSEVIER		Atherosclerosis		atheroscler EAS O mm	

Modulation is Associated with Favorable Kidney Function and Alkaline Phosphatase Profile in Patients with Chronic Kidney Disease

Ewelina Kulikowski^a Christopher Halliday^a Jan Johansson^b Mike Sweeney^b Kenneth Lebioda^a Norman Wong^a Mathias Haarhaus^c Vincent Brandenburg^d Srinivasan Beddhu^e Marcello Tonelli^f Carmine Zoccali^g Kamyar Kalantar-Zadeh^{h,i,j} Apabetalone downregulates factors and pathways associated with vascular calcification



Dean Gilham^a, Laura M. Tsujikawa^a, Christopher D. Sarsons^a, Christopher Halliday^a, Sylwia Wasiak^a, Stephanie C. Stotz^a, Ravi Jahagirdar^a, Michael Sweeney^b, Jan O. Johansson^b, Norman C.W. Wong^a, Kamyar Kalantar-Zadeh^c, Ewelina Kulikowski^{a,*}

Recent High Profile Publications

- Recent high profile publications illustrate apabetalone-induced activation of latent HIV-1 in vitro and ex vivo
- Suggest that Apabetalone synergistically reactivated latent HIV-1 and could combine with cART drugs to inhibit viral infection



BET Technology Goes Mainstream Zenith Epigenetics







ACS Publications

www.acs.org