Regenacy Pharmaceuticals

CORPORATE OVERVIEW

Restoring Nerve Function to Treat Diabetic and Other Peripheral Neuropathies

Regenacy Pharmaceuticals, Inc is positioned to deliver a superior, first-in-class treatment for peripheral neuropathies, which affect many millions of people, including over 50% of diabetic patients. Our lead compound ricolinostat (ACY-1215) is an oral, selective inhibitor of the microtubule modifying enzyme HDAC6 that will be entering a proof-of-concept (PoC) Phase 2 clinical trial in diabetic peripheral neuropathy.

Our focus on ricolinostat for diabetic, chemotherapy-induced, and inherited peripheral neuropathies is based on compelling proof-of-concept preclinical studies demonstrating restoration of normal nerve function.

Ricolinostat has previously completed Phase 1 and 2 clinical trials in multiple myeloma, comprising experience in 250+ patients including use as a single agent and in combination with various anticancer agents. **Ricolinostat has demonstrated an excellent safety and tolerability profile in clinical trials, including healthy volunteers, compared to the high toxicity of currently marketed pan-HDAC inhibitors (e.g. vorinostat, panobinostat).**

Ricolinostat is protected by issued US and foreign composition of matter patents through 2034 with additional method-of-use patents positioned to issue for diabetic, chemotherapeutic and inherited neuropathies, as well as polycystic kidney disease.

Regenacy was founded in December 2016 following the acquisition of Acetylon Pharmaceuticals by Celgene. Regenacy received exclusive rights to ricolinostat for a range of non-cancer disease indications.

- **Unique disease-modifying capability to restore nerve function in peripheral neuropathy**
- **Phase 2-ready lead program (ricolinostat) in diabetic peripheral neuropathy to treat pain and numbness**
- **Potential breakthrough treatment in chemotherapy induced neuropathy and Charcot-Marie-Tooth Disease Type 2**
- **Validated HDAC1,2 inhibitor program aimed at hematolgic cancers, hemoglobinopathies and cognitive dysfunction**

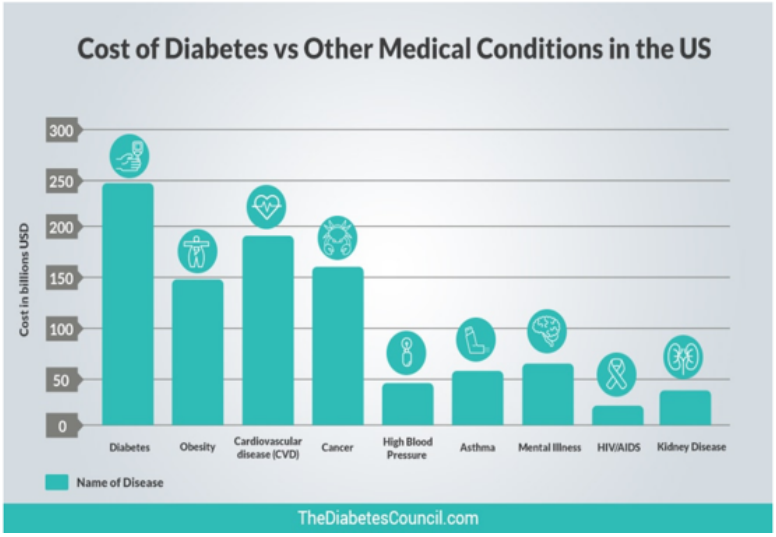
Regenacy has an unparalleled portfolio of isoform selective HDAC1/2 inhibitors, with potential application in oncology (AML), cognitive dysfunction (Alzheimer's Disease, depression and schizophrenia), and hemoglobinopathies (sickle cell and beta thalassemia).

Regenacy's isoform selective HDAC1/2 inhibitors are differentiated from pan-Class I (i.e. HDAC1/2/3) inhibitors by superior preclinical safety and tolerability profiles, and they include both blood-brain barrier penetrant and non-penetrant preclinical candidates formulated for oral administration as tablets, with excellent pharmacokinetic properties.

Diabetic Peripheral Neuropathy is a Huge and Growing Health Issue World Wide

Diabetes and related health issues are the leading medical cost in the United States. Diabetic peripheral neuropathy (DPN) is one of the most common complications of type 1/type 2 diabetes and can impact over 50% of diabetics. DPN causes burning pain, tingling and numbness in the hands and feet leading to increased morbidity and mortality as a consequence of limb amputation. Current treatments are (a) only effective in < 30% of patients with pain symptoms, (b) provide limited pain relief, (c) do not address numbness, (d) are not well tolerated, (e) can lead to addiction (opioid use), and (f) do not reverse the loss of nerve function.

There are an estimated 200M+ people worldwide impacted by DPN and this estimate is expected to dramatically increase in the next 10+ years. Total current market size is estimated to be over $10B for drugs that provide symptomatic relief of pain only, and greater potential for a **first-in-class disease-modifying therapy**. A further estimated 500,000 patients suffer from chemotherapy induced peripheral neuropathy (CIPN) and approximately 100,000 from Charcot-Marie-Tooth (CMT) disease and related inherited neuropathies.



Broad, Maturing Portfolio of Selective HDAC Inhibitors

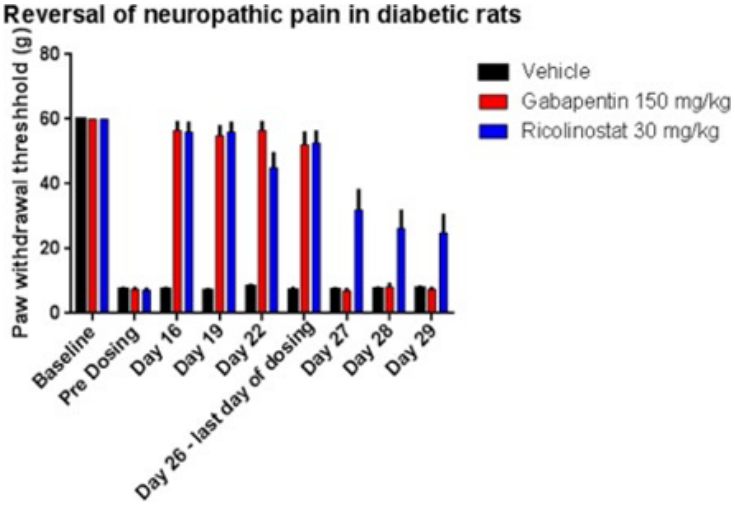
PRODUCT CANDIDATE	LEAD OPTIMIZATION	PRE-CLINICAL	PHASE 1	PHASE 2	PHASE 3
Peripheral Neuropathy - HDAC6 Inhibitors					
Ricolinostat	Diabetic Neuropathic Pain				
Ricolinostat	CIPN & Charcot-Marie-Tooth Disease (Type 2)				
Ricolinostat	Polycystic Kidney Disease				
HDAC1/2 Inhibitors - Therapeutic Opportunities					
Lead RCY-1410	Hematologic Cancers				
Discovery Program	Neurodegeneration / Psychiatric / Other				
Discovery Program	Hemoglobinopathies				

Robust Preclinical Proof-of-Concept with Selective Histone Deacetylase Inhibitors

Ricolinostat can restore fast axonal transport in multiple animal models of peripheral neuropathy, both genetic and induced forms. Injury and loss of axons (axonopathy) is a common clinical feature found in these animal models, and in patients with distal (hands and feet) symmetric polyneuropathy due to diabetes, chemotherapy and genetic mutations (CMT).

Ricolinostat is effective in preclinical models of diabetic neuropathy as well as taxane and cisplatin chemotherapy-induced peripheral neuropathy. Unlike the effects of standard analgesics, improvement persists even after drug administration has ended, and the effects are associated with regrowth of damaged epidermal nerve fibers, suggesting the potential for disease modification in humans. Further, genetic knockout of HDAC6 protects mice from developing CIPN (Krukowski et al, Pain, 2017, Ma et al, Pain 2019. Ricolinostat also restores motor function and nerve conductance velocity in mouse models of Type 2 Charcot Marie Tooth disease (Mo et al, Nature Communications, 2018; Benoy et al, Brain, 2018; Benoy et al, Neurotherapeutics, 2016; d'Ydewalle et al, Nature Medicine, 2011).

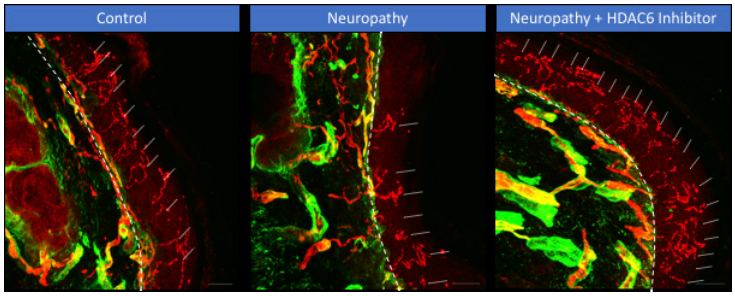
Reversal of neuropathic pain in diabetic rats



Selective HDAC1/2 inhibition shows impressive efficacy in cell based and animal models of hematologic cancers. These compounds have similar efficacy as pan-selective HDAC inhibitors with significantly reduced toxicity. HDAC1,2 inhibitors work well in combination with standard of care treatments such as azacytidine for AML, (bottom right) (as shown in Min et al, PLOS One, 2017) and emerging cancer treatments like EZH2 inhibitors (as shown in Johnson et al, Oncotarget, 2015). In addition, brain penetrant HDAC1,2 inhibitors improve cognitive function in mouse models of Alzheimer's disease. Several lead drug candidates have been identified (ACY-1410 and others) for additional preclinical validation and entry into IND enabling studies.

HDAC6 inhibition restores nerve fibers in CIPN mice leading to reversal of both pain and numbness.

KEY
Green: Collagen (epidermal layer of skin)
Red: Nerve fibers (PGP9.5)
White arrows: Indicate intraepidermal nerve fibers



Leadership Team With Extensive Neurology, Hematology & Small Molecule Expertise

MANAGEMENT TEAM

Marc A. Cohen Executive Chairman Acetylon Co-Founder	OPNET, Bublup, COBRO Ventures, Dana-Farber Cancer Institute, OncoPep, C4 Therapeutics, Acetylon, and Frequency Therapeutics
Simon S. Jones, Ph.D. President & CEO	Genetics Institute (Wyeth), Creative Biomolecules / Curis, ArQule, EPIX and Acetylon
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David Michelson, MD Chief Medical Officer	Proclara Biosciences, Merck, and Eli Lilly
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Greg Phelps, MBA Acting Head of Corporate Development	Baxter, ZymoGenetics, Viagene, Genzyme, Dyax, RenaMed, EPIX, Proteon, and Red Sky Partners

SCIENTIFIC ADVISORS

William W. Chin, MD Member of Board of Directors and Scientific Advisory Board	• Bertarelli Professor of Translational Medical Science and Professor of Medicine of Emeritus at Havard Medical School • Expert in endocrinology
Roy L. Freeman, MD Member of Scientific Advisory Board	• Professor, Harvard Medical School / Beth Israel Deaconess Medical Center • Expert in diabetic / other peripheral neuropathy, and autonomic dysfunction
Robert H. Dworkin, Ph.D. Member of Scientific Advisory Board	• Professor, University of Rochester School of Medicine / Medical Center • Expert in peripheral neuropathy, chronic pain, and osteoarthritis
David N. Herrmann, M.B.B.Ch Member of Scientific Advisory Board	• Professor, University of Rochester • Expert in inherited neuropathies
Ralph Mazitschek, Ph.D. Member of Scientific Advisory Board, Acetylon Co-Founder	• Asst. Professor, Harvard Medical School / Massachusetts General Hospital • Expert in medicinal chemistry and chemical biology and HDAC inhibitors
Rodica Pop-Busui, MD Ph.D. Member of Scientific Advisory Board	• Professor in the Department of Internal Medicine, Division of Metabolism, Endocrinology and Diabetes (MEND) and co-Director of the Neuropathy Center at the University of Michigan • Expert translational and clinical researcher focused in understanding the mechanisms of diabetic complications, particularly of diabetic peripheral neuropathy and cardiovascular autonomic neuropathy

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