



PRESS RELEASE
January 29, 2024

ARMGO Pharma Publishes Positive Phase 1b Trial Results of Rycal[®] ARM210 for the Treatment of Ryanodine Receptor 1 Related Myopathies

- Phase 1b open label trial confirms safety and tolerability of 120 mg and 200 mg dosing of ARM210 daily in patients with Ryanodine Receptor 1 Related Myopathies
- Provides first signs of clinical efficacy improving fatigue and proximal muscle strength in patients at 200 mg daily
- Corroborates allosteric mechanism of action of Rycal[®] ARM210 to restore muscle function by repairing mutated 'leaky' Ryanodine Receptor 1 channels

ARDSLEY, N.Y., January 29, 2024 – ARMGO Pharma, Inc. (ARMGO), a clinical stage biopharmaceutical company advancing a novel class of small molecule drugs known as Rycals[®], announced today the publication of the results from a Phase 1b study of its Rycal ARM210 (also known as S48168), for the treatment of Ryanodine Receptor 1 Related Myopathies (RYR1-RM), an orphan muscle disease.

The data was published in a paper entitled 'Rycal S48168 (ARM210) for RYR1-related myopathies: A phase one, open-label, dose-escalation trial' authored by Dr Joshua Todd *et al* in the peer reviewed Journal *eClinicalMedicine*, part of the Lancet family of publications. The paper reviews data from the Phase 1b study of ARM210 and its novel allosteric mechanism of action (MoA) targeting the root cause of RYR1-RM: mutated Ryanodine Receptor 1 (RYR1).

The RYR1 gene encodes RyR1, an intracellular calcium-release channel that becomes leaky in muscle diseases. Intracellular calcium leaks caused by mutant RyR1 channels impair

muscle contraction leading to muscle weakness and loss of function, and activate toxic pathways that damage muscle, causing the symptoms in RYR1-RM.

The Phase 1b, open-label, dose-escalation trial confirmed safety, tolerability and pharmacokinetics of 120 and 200 mg dosing of ARM210 daily over for 29 days in adult men and women affected with RYR1-RM.

Importantly, it also demonstrated preliminary efficacy in the higher dose group in two hallmark symptoms of RYR1-RM: 1) significant alleviation of fatigue assessed by PROMIS-fatigue t-scores and 2) improved proximal muscle strength assessed by physical shoulder abduction exam (Medical Research Council grading). These results warrant further development of ARM210 as a potential disease modifying treatment for RYR1-RM in a randomized, placebo-controlled Phase 2 trial.

The completed Phase 1b trial was conducted in collaboration with the National Institute of Neurological Disorders and Stroke (NINDS) and the National Institutes of Health (NIH) under a Cooperative Research and Development Agreement (CRADA), with the support of the RYR-1 Foundation, Pittsburgh, PA, USA.

“We are very pleased with the results of the RYR1-RM trial conducted together with the NIH, as the study has confirmed the safety and tolerability of ARM210, but most importantly, it has demonstrated for the first time that our Rycal[®], ARM210, can reverse symptoms of this devastating, chronic muscle disease in a short treatment period. That is very promising”, **said Gene Marcantonio, M.D., Ph.D., Chief Executive Officer of ARMGO Pharma.** “We look forward, therefore, to rapidly continuing the development of ARM210 to bring this potential first treatment to RYR1-RM patients with the support of the RYR-1 Foundation and the patient community.”

Michael F. Goldberg, M.D., M.P.H., Co-Chair of Research of the RYR-1 Foundation **added**, “We are elated by the publication of this important study, as it represents a beacon of hope for the many individuals and families from around the world who are affected by RYR1-RM. We look forward to the next stages in the development of this important drug.”

Further information about this Phase 1b trial can be found online at: <https://clinicaltrials.gov/study/NCT04141670>. The trial was supported by Intramural Research Programs of the NIH/NINDS, NIH/NINR, a NIH Clinical Center Bench to Bedside Award (2017-551673) and ARMGO's previous collaboration partner Les Laboratoires Servier. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Publication reference:

Rycal S48168 (ARM210) for RYR1-related myopathies: a phase one, open-label, dose-escalation trial, Todd et al, eClinicalMedicine

[https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370\(24\)00012-9/fulltext](https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(24)00012-9/fulltext)

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About ARM210

ARM210 (S48168) is a small molecule of the Rycal class, owned and developed by ARMGO for the treatment of Ryanodine Receptor mediated diseases such as RYR1-RM. It is an allosteric modulator that binds preferentially to leaky RyR channels and repairs the leak, as previously demonstrated in vitro in muscle biopsies from RYR1-RM patients.

ARM210 (S48168) is currently undergoing Phase 2 clinical development for a second orphan indication, Catecholaminergic Polymorphic Ventricular Tachycardia (CPVT), a genetic arrhythmia caused by mutations in RYR2, the cardiac calcium channel gene.

ARM210 (S48168) was awarded orphan drug designation for RYR1-RM in 2018 by the FDA and for CPVT in 2020. ARMGO also has a rare pediatric disease designation for CPVT.

About ARMGO Pharma

ARMGO Pharma, Inc., is a privately held biopharmaceutical company dedicated to developing novel small-molecule therapeutics to treat cardiac, and musculoskeletal disorders

characterized by leaky Ryanodine Receptor (RyR) calcium channels. The Company's proprietary drugs, known as Rycals[®], are a new class of oral agents that repair these leaky calcium channels. ARM210, ARMGO's most advanced Rycal, is currently in clinical development for two rare and orphan diseases, Catecholaminergic Polymorphic Ventricular Tachycardia (CPVT), a life-threatening cardiac disease and RYR1-Related Myopathy (RYR1-RM) a severe muscle disease. ARMGO Pharma has an exclusive, worldwide license from Columbia University for its RyR technology based on the research of founding scientist Andrew R. Marks, M.D.

For more information, please visit <http://www.armgo.com>

About RYR-1 Foundation

The Pittsburgh, Pennsylvania-based 501(c)(3) public charity was launched in October 2014. It is currently the *only* organization that exists *solely* to advocate for and serve the needs of individuals affected by RYR-1-related diseases (RYR-1-RD), the most common cause of congenital myopathy. The RYR-1 Foundation supports research leading to an effective treatment or a cure for RYR-1-RD. To achieve this mission, The RYR-1 Foundation has several goals:

- 1) Support Research: The RYR-1 Foundation makes grants to researchers interested in RYR-1-RD. Developing a patient registry is also key to promoting clinical trials of potential therapies.
- 2) Medical Professional Education: The vast majority of medical professionals have never heard of RYR-1-RD. The RYR-1 Foundation raises awareness through resources on our website, including the latest medical literature, as well as direct meetings with medical professionals around the world.
- 3) Patient/Family Support and Advocacy: Due to the rarity of RYR-1-RD, receiving this diagnosis can be an anxiety-provoking and isolating experience for an affected patient and their families. The RYR-1 Foundation serves as a resource for patients and their families through our website, other forms of social media, and family conferences.

For more information, please visit <http://www.ryr1.org>