NEWS RELEASE

Coya Therapeutics Expands Pipeline and Intellectual Property Portfolio with Filing of New U.S. Patents for COYA 301 in Combination with Glucagon-Like Peptide-1 (GLP-1) Receptor Agonists

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Combination of COYA 301 + GLP-1 receptor agonists (GLP-1 RA) may present a promising multi-pathway targeted approach for additive and/or synergistic anti-inflammatory functions for the potential treatment of inflammatory diseases, including neurodegenerative, autoimmune, and metabolic conditions;

Data supporting these patents indicate that COYA 301 and GLP-1 RA combinations may have an additive and/or synergistic anti-inflammatory effect on multiple cell types, including enhancement of regulatory T cell function, suppression of pro-inflammatory myeloid and T cells, and repolarization of these cells to anti-inflammatory phenotypes;

Proposed proprietary combinations will expand Coya's pipeline and has potential to expand the GLP-1 market beyond the approved indications of diabetes and obesity, while opening the door to strategic partnerships and scientific collaborations

HOUSTON--(BUSINESS WIRE)-- Coya Therapeutics, Inc. (NASDAQ: COYA) ("Coya" or the "Company"), a clinical-stage biotechnology company developing biologics intended to enhance regulatory T cell (Treg) function, announces the filing of intellectual property protection for the combination of COYA 301, or recombinant human low dose interleukin-2 (LD IL-2), and Glucagon-Like Peptide-1 receptor agonists (GLP-1 RAs).

Dr. Arun Swaminathan, Coya's Chief Business Officer, stated, "There has been an upswing in interest from major

pharma companies looking to expand their GLP-1 RA pipeline including testing combination mechanistic approaches. The combination of low-dose IL-2 with GLP-1 RAs could offer a differentiated approach to addressing multiple conditions, including in neurodegenerative conditions such as Alzheimer's Disease, in which GLP-1 RAs have recently shown promise. We believe the potential of this proprietary combination could lead to value-creating business development partnerships."

There has been extensive commercial success using the GLP-1 RA class for the treatment of diabetes and obesity. GLP-1 RAs have anti-inflammatory and anti-oxidant effects that may contribute to their overall glucose-lowering benefits. The influence of GLP-1 RAs on inflammatory pathways provides an opportunity to optimize these effects by combining with LD IL-2 mediated Treg enhancement.

GLP-1 RAs and LD IL-2 act through distinct mechanisms of action to exert anti-inflammatory and Treg-enhancing effects and may make this multi-targeted therapeutic approach an appealing combination to potentially address the unmet needs of patients with severe systemic and neuro-inflammatory, autoimmune, and metabolic conditions. Such dynamic and complex conditions may benefit from the combination treatments that address multiple pathophysiological pathways simultaneously. Specifically, LD IL-2 is a cytokine essential for the enhancement of Treg function and numbers suppressing inflammatory responses, while GLP-1 RAs possess neuroprotective and anti-inflammatory properties via modulation of microglial activity, reduction of oxidative stress, and promotion of neuronal survival. Coya is currently investigating these combinations to potentially bring forward an optimized novel therapeutic approach towards several diseases.

Dr. Howard Berman, Coya's Chief Executive Officer, added, "We believe that combination immunotherapy approaches will evolve to play a meaningful role in treating complex immune-based diseases, that are driven by a host of pathophysiologic mechanisms. A COYA 301/GLP-1 RA combination targets multiple, independent, and non-overlapping immune pathways simultaneously and aligns with our combination R&D strategy as seen with COYA 302, which is the combination of COYA 301 and CTLA-4 Ig (commercially known as Abatacept) and which is being evaluated in numerous neurodegenerative disease models, such as Amyotrophic Lateral Sclerosis, Alzheimer's and Parkinson's diseases. We will continue to expand our portfolio with additional synergistic drug combinations with COYA 301."

About COYA 301

COYA 301 is the company's proprietary investigational low-dose interleukin-2 (IL-2) intended to enhance the anti-inflammatory function regulatory T cells (Tregs) and is designed for subcutaneous administration.

About COYA 302

COYA 302 is an investigational and proprietary biologic combination therapy with a dual immunomodulatory mechanism of action intended to enhance the anti-inflammatory function of regulatory T cells (Tregs) and suppress the inflammation produced by activated monocytes and macrophages. COYA 302 is comprised of proprietary low dose interleukin-2 (LD IL-2) and CTLA-4 Ig and is being developed for subcutaneous administration for the treatment of patients with ALS, FTD, and PD. These mechanisms may have additive or synergistic effects.

In February of 2023, Coya announced results from a proof-of-concept, open-label clinical study evaluating commercially available LD IL-2 and CTLA-4 Ig in a small cohort of patients with ALS conducted at the Houston Methodist Research Institute (Houston, Texas) by Stanley Appel, M.D., Jason Thonhoff, M.D., Ph.D., and David Beers, Ph.D. This study was the first-of-its-kind evaluating this dual-mechanism immunotherapy for the treatment of ALS. Patients in the study received investigational treatment for 48 consecutive weeks and were evaluated for safety and tolerability, Treg function, serum biomarkers of oxidative stress and inflammation, and clinical functioning as measured by the ALSFRS-R scale.

During the 48-week treatment period, the therapy was well tolerated. The most common adverse event was mild injection-site reactions. No patient discontinued the study, and no deaths or other serious adverse events were reported.

Patients' disease progression was measured using the ALSFRS-R scale, a validated rating tool for monitoring the progression of disability in patients with ALS. The mean (±SD) ALSFRS-R scores at week 24 (33.75 ±3.3) and week 48 (32 ±7.8) after initiation of treatment were not statistically different compared to the ALSFRS-R score at baseline (33.5 ±5.9), suggesting significant amelioration in the progression of the disease over the 48-week treatment period.

Treg suppressive function, expressed as percentage of inhibition of proinflammatory T cell proliferation, showed a statistically significant increase over the course of the treatment period and was significantly reduced at the end of the 8-week washout post-treatment period. Treg suppressive function at 24 weeks (79.9 ±9.6) and 48 weeks (89.5 ±4.1) were significantly higher compared to baseline (62.1 ±8.1) ($p<0.01$), suggesting enhanced and durable Treg suppressive function over the course of treatment. In contrast, Treg suppressive function (mean ±SD) was significantly decreased at the end of the 8-week washout period compared to end-of-treatment at week 48 (70.3 ±8.1 vs. 89.5 ±4.1, $p <0.05$).

The study also evaluated serum biomarkers of inflammation, oxidative stress, and lipid peroxides. The available data up to 16 weeks after initiation of treatment suggest a decrease in these biomarker levels, which is consistent with the observed enhancement of Treg function. The evaluation of the full biomarker data is ongoing.

COYA 302 is an investigational product not yet approved by the FDA or any other regulatory agency.

About Coya Therapeutics, Inc.

Headquartered in Houston, TX, Coya Therapeutics, Inc. (Nasdaq: COYA) is a clinical-stage biotechnology company developing proprietary treatments focused on the biology and potential therapeutic advantages of regulatory T cells ("Tregs") to target systemic inflammation and neuroinflammation. Dysfunctional Tregs underlie numerous conditions, including neurodegenerative, metabolic, and autoimmune diseases, and this cellular dysfunction may lead to sustained inflammation and oxidative stress resulting in lack of homeostasis of the immune system.

Coya's investigational product candidate pipeline leverages multiple therapeutic modalities aimed at restoring the anti-inflammatory and immunomodulatory functions of Tregs. Coya's therapeutic platforms include Treg-enhancing biologics, Treg-derived exosomes, and autologous Treg cell therapy.

COYA 302 – the Company's lead biologic investigational product or "Pipeline in a Product"– is a proprietary combination of COYA 301 (Coya's proprietary LD IL-2) and CTLA4-Ig for subcutaneous administration with a unique dual mechanism of action that is now being developed for the treatment of Amyotrophic Lateral Sclerosis, Frontotemporal Dementia, Parkinson's Disease, and Alzheimer's Disease. Its multi-targeted approach enhances the number and anti-inflammatory function of Tregs and simultaneously lowers the expression of activated microglia and the secretion of pro-inflammatory mediators. This synergistic mechanism may lead to the re-establishment of immune balance and amelioration of inflammation in a sustained and durable manner that may not be achieved by either low-dose IL-2 or CTLA4-Ig alone.

For more information about Coya, please visit **www.coyatherapeutics.com**

Forward-Looking Statements

This press release contains "forward-looking" statements that are based on our management's beliefs and assumptions and on information currently available to management. Forward-looking statements include all statements other than statements of historical fact contained in this presentation, including information concerning our current and future financial performance, business plans and objectives, current and future clinical and preclinical development activities, timing and success of our ongoing and planned clinical trials and related data, the timing of announcements, updates and results of our clinical trials and related data, our ability to obtain and maintain regulatory approval, the potential therapeutic benefits and economic value of our product candidates, competitive position, industry environment and potential market opportunities. The words "believe," "may," "will," "estimate," "continue," "anticipate," "intend," "expect," and similar expressions are intended to identify forward-looking statements.

Forward-looking statements are subject to known and unknown risks, uncertainties, assumptions and other factors

including, but not limited to, those related to risks associated with the impact of COVID-19; the success, cost and timing of our product candidate development activities and ongoing and planned clinical trials; our plans to develop and commercialize targeted therapeutics; the progress of patient enrollment and dosing in our preclinical or clinical trials; the ability of our product candidates to achieve applicable endpoints in the clinical trials; the safety profile of our product candidates; the potential for data from our clinical trials to support a marketing application, as well as the timing of these events; our ability to obtain funding for our operations; development and commercialization of our product candidates; the timing of and our ability to obtain and maintain regulatory approvals; the rate and degree of market acceptance and clinical utility of our product candidates; the size and growth potential of the markets for our product candidates, and our ability to serve those markets; our commercialization, marketing and manufacturing capabilities and strategy; future agreements with third parties in connection with the commercialization of our product candidates; our expectations regarding our ability to obtain and maintain intellectual property protection; our dependence on third party manufacturers; the success of competing therapies or products that are or may become available; our ability to attract and retain key scientific or management personnel; our ability to identify additional product candidates with significant commercial potential consistent with our commercial objectives; ; and our estimates regarding expenses, future revenue, capital requirements and needs for additional financing.

We have based these forward-looking statements largely on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, business strategy, short-term and long-term business operations and objectives, and financial needs. Moreover, we operate in a very competitive and rapidly changing environment, and new risks may emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed herein may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements. Although our management believes that the expectations reflected in our forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances described in the forward-looking statements will be achieved or occur. We undertake no obligation to publicly update any forward-looking statements, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise.

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