Avidity Biosciences Announces Updates on the Pipeline and Platform at Virtual Investor and Analyst Event

AOC 1001 demonstrated favorable safety profile in GLP toxicology studies - remains on track to initiate clinical studies in 2H 2021
AOC 1044 named as the clinical development candidate for DMD
Avidity to live video webcast investor and analyst event today at 8:00 am PT / 11:00 am ET

LA JOLLA, Calif., May 19, 2021 /PRNewswire/ -- Avidity Biosciences, Inc. (Nasdaq: RNA), a biopharmaceutical company pioneering a new class of oligonucleotide-based therapies called Antibody Oligonucleotide Conjugates (AOCs™), announced that new preclinical data on its lead AOC program, AOC 1001, and key programmatic updates will be shared at a virtual investor and analyst event today. The event at 8:00am PT is titled "Engineering AOCs" and is the first in a series of investor and analyst events that the company plans to host in 2021.

Avidity Pipeline Updates

- **AOC 1001 for Myotonic Dystrophy Type 1 (DM1) demonstrates safety profile that supports advancement to clinic.** During today's virtual investor and analyst event, Avidity will share comprehensive results from its non-human primate (NHP) toxicology studies (both Good Laboratory Practice, or GLP, and non-GLP) that support the clinical evaluation of AOC 1001. Results from the AOC 1001 GLP toxicology study show a favorable safety profile that supports advancement into the clinic.
- **AOC 1044 named as clinical development candidate for Duchenne Muscular Dystrophy (DMD) program targeting Exon 44.** AOC 1044 is the first of three programs for DMD and is now entering IND-enabling studies. Avidity remains on track with plans to commence clinical trials for AOC 1044 and its AOC FSHD program for facioscapulohumeral muscular dystrophy (FSHD) in 2022, following additional preparatory preclinical studies and regulatory clearance.

"This event is the first in a series highlighting the great work being done by the team at Avidity. Our AOC platform is built upon years of engineering and rigorously following the data. It has the potential to revolutionize the delivery of oligonucleotide therapeutics to multiple cell and tissue types to profoundly impact the lives of people suffering from serious diseases. We look forward to sharing data today from our first AOC candidate, AOC 1001, which remains on track to enter the clinic in the second half of this year," said Sarah Boyce, president and CEO of Avidity. "We are also grateful to have Dr. Zamore and Dr. Dowdy joining us for a panel discussion on the important role for RNA therapeutics in treating diseases that are currently underserved."

Today's Video Webcast Information

A live video webcast of the event will be available today, May 19, 2021 beginning at 8:00 am PT / 11:00am ET on the "Events and Presentations" page in the "Investors" section of Avidity's website at https://aviditybiosciences.investorroom.com/events-and-presentations. A replay of the webcast will be archived on Avidity's website following the event.

About Avidity Biosciences

Avidity Biosciences, Inc. is driven to change lives with a new class of therapies called Antibody Oligonucleotide Conjugates (AOCs) that are designed to overcome current limitations of oligonucleotide therapies in order to treat a wide range of serious diseases. Avidity's proprietary AOC platform combines the tissue selectivity of monoclonal antibodies and the precision of oligonucleotide therapies to access previously undruggable tissue and cell types and more effectively target underlying genetic drivers of diseases. Avidity's lead product candidate, AOC 1001, is designed to treat myotonic dystrophy type 1, and its other muscle programs are focused on the treatment of Duchenne muscular dystrophy, facioscapulohumeral muscular dystrophy, Pompe disease and muscle atrophy. In addition to its muscle franchise, Avidity has research efforts focused on immune cells, cardiac tissue and other cell types.

Avidity is headquartered in La Jolla, CA. For more information about Avidity's science, pipeline and people, please visit www.aviditybiosciences.com and engage with Avidity on LinkedIn and on Twitter.

Forward-Looking Statements

Avidity cautions readers that statements contained in this press release regarding matters that are not historical facts are forward-looking statements. These statements are based on the company's current beliefs and expectations. Such forward-looking statements include, but are not limited to, statements regarding: the

potential to develop a meaningful pipeline of novel AOC therapeutics; the initiation of a clinical trial of AOC 1001 in patients with myotonic dystrophy type 1, the initiation of a clinical trial of AOC 1044 in patients with Duchenne Muscular Dystrophy (DMD), the initiation of a clinical trial of AOC FSHD in patients with facioscapulohumeral muscular dystrophy (FSHD), and other planned clinical trials, and the timing thereof; the potential to identify new targets beyond skeletal muscle that can be targeted with Avidity's AOC approach; and the broad potential of AOCs to treat rare and serious diseases. The inclusion of forward-looking statements should not be regarded as a representation by Avidity that any of these plans will be achieved. Actual results may differ from those set forth in this press release due to the risks and uncertainties inherent in the business, including, without limitation: Avidity is early in its development efforts and all of its development programs are in the preclinical or discovery stage; Avidity's approach to the discovery and development of product candidates based on its AOC platform is unproven, and the company does not know whether it will be able to develop any products of commercial value; potential delays in the commencement, enrollment and completion of clinical trials; disruption to its operations from the COVID-19 pandemic; the success of its preclinical studies and clinical trials for the company's product candidates; the results of preclinical studies and early clinical trials are not necessarily predictive of future results; Avidity's dependence on third parties in connection with preclinical testing and product manufacturing; unexpected adverse side effects or inadequate efficacy of its product candidates that may limit their development, regulatory approval and/or commercialization, or may result in recalls or product liability claims; regulatory developments in the United States and foreign countries, including acceptance of INDs and similar foreign regulatory filings and the proposed design of future clinical trials; risks related to integration of new management personnel; and other risks described in prior press releases and in filings with the Securities and Exchange Commission (SEC). Avidity cautions readers not to place undue reliance on these forward-looking statements, which speak only as of the date hereof, and the company undertakes no obligation to update such statements to reflect events that occur or circumstances that exist after the date hereof. All forward-looking statements are qualified in their entirety by this cautionary statement, which is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995.

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