Aytu BioPharma Announces Publication of Data Demonstrating Ultraviolet-A Light Reduces Cellular Cytokine Release from Human Endotracheal Cells Infected with Coronavirus

ENGLEWOOD, CO / July 27, 2021 / Aytu BioPharma, Inc. (NASDAQ:AYTU), a specialty pharmaceutical company focused on commercializing novel therapeutics and consumer healthcare products, announced today that data from a laboratory study evaluating the ultraviolet A light used in the Healight™ endotracheal catheter technology was published in the peer reviewed journal *Photodiagnosis and Photodynamics Therapy*.

"These latest *in vitro* findings continue to build upon the body of scientific evidence supporting the potential of this UVA platform technology and may help to explain the observed effects of Healight in SARS-CoV-2. These findings point to the fact that UVA light demonstrated a statistically significant effect on several key secreted cytokines and chemokines that are upregulated during CoV-229E induced cytokine secretion, which may translate to a clinical benefit in SARS-CoV-2. This *in vitro* finding supports the further pursuit of Healight as a prospective treatment for severely ill intubated patients with difficult to treat respiratory infections, including SARS-CoV-2," commented Josh Disbrow, Chief Executive Officer of Aytu BioPharma. "We continue to believe in the potential clinical utility of this treatment and look forward to initiating a larger, sham-controlled Phase 2 clinical study in Europe in the second half of 2021."

The manuscript titled "*Ultraviolet-A light reduces cellular cytokine release from human endotracheal cells infected with Coronavirus*" concluded that that repeated narrow band UVA (NB-UVA) therapy may mitigate excessive immune system signaling by cells infected with human coronavirus. The study demonstrated that NB-UVA therapy decreases the level of several pro-inflammatory secreted cytokines/chemokines in an *in vitro* model studying CoV-229E that partially mimics the cytokine storm commonly caused by coronavirus.

Data from this study show that transfection with CoV-229E (which is related to the SARS-CoV-2 virus implicated in COVID-19) results in excessive cytokine production in human ciliated tracheal epithelial cells *in vitro*, and that these cytokines are significantly ameliorated following repeated treatment with specific and monitored UVA light therapy. Levels of secreted pro- and anti-inflammatory cytokines/chemokines were analyzed in supernatants harvested from coronavirus-infected/UVA-exposed cells 24 hours after the last UVA treatment, and from matched non-infected/UVA-exposed controls, coronavirus-infected/non-exposed controls, and non-infected/non-exposed (naïve) controls.

Pro-inflammatory cytokines interleukin (IL)-6 and tumor necrosis factor (TNF), and chemokines IL-8, monocyte chemoattractant protein-1 (MCP1), and interferon gamma-induced protein 10 (IP-10), were significantly increased in CoV-229E-infected cells, but significantly decreased following NB-UVA treatment. Specifically, NB-UVA treatment

significantly reduced secreted levels of IL-6 and TNF-α by at least 50%. These are two major cytokines associated with the activation of the systemic immune system and inflammatory responses and are highly correlated with COVID-19 severity and patient survival.

Aside from coronavirus, utilization of internal UVA light may have numerous other clinical applications. Aytu BioPharma will continue to engage with researchers in various therapeutic areas to continue to build on this technology platform.

About Aytu BioPharma, Inc.

Aytu BioPharma is a specialty pharmaceutical company with a growing commercial portfolio of prescription therapeutics and consumer health products. The company's primary prescription products treat attention deficit hyperactivity disorder (ADHD) and other common pediatric conditions. Aytu markets ADHD products Adzenys XR-ODT® (amphetamine) extended-release orally disintegrating tablets (see Full Prescribing Information, including Boxed WARNING), Cotempla XR-ODT® (methylphenidate) extended-release orally disintegrating tablets (see Full Prescribing Information, including Boxed WARNING), and Adzenys-ER® (amphetamine) extended-release oral suspension (see Full Prescribing Information, including Boxed WARNING). The company's other pediatric products include Karbinal® ER (carbinoxamine maleate), an extended-release carbinoxamine (antihistamine) suspension indicated to treat numerous allergic conditions, and Poly-Vi-Flor® and Tri-Vi-Flor®, two complementary fluoride-based prescription vitamin product lines containing combinations of fluoride and vitamins in various formulations for infants and children with fluoride deficiency. The company's evolution has been driven by strategic in-licensing, acquisition-based transactions and organic product growth. Aytu is building a complimentary therapeutic development pipeline including a prospective treatment (AR101/enzastaurin) for vascular Ehlers-Danlos Syndrome (vEDS), a rare genetic disease resulting in high morbidity and a significantly shortened lifespan. There are no currently approved treatments for vEDS. To learn more, please visit aytubio.com.

Forward-Looking Statements

This press release includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, or the Exchange Act. All statements other than statements of historical facts contained in this press release, are forward-looking statements. Forward-looking statements are generally written in the future tense and/or are preceded by words such as 'may,' 'will,' 'should,' 'forecast,' 'could,' 'expect,' 'suggest,' 'believe,' 'estimate,' 'continue,' 'anticipate,' 'intend,' 'plan,' or similar words, or the negatives of such terms or other variations on such terms or comparable terminology. All statements other than statements of historical facts contained in this presentation, are forward-looking statements, including but not limited to any statements regarding the scientific or clinical results from the Healight pre-clinical or clinical studies, the potential regulatory authorizations or approvals that may be enabled by such studies, the market potential of Healight, and any factors that could influence any future

commercialization plans for Healight. We also refer you to (i) the risks described in 'Risk Factors' in Part I, Item 1A of Aytu's Annual Report on Form 10-K and in the other reports and documents it files with the Securities and Exchange Commission and (ii) the Risk Factors set forth in Aytu's Annual Report on Form 10-K and Quarterly Reports on Form 10-Q filed with the SEC.

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