Artificial Intelligence Enhanced Discovery Pathology

AIRA Matrix and Pharmaseed Announced a Strategic Collaboration for Artificial Intelligence Application on *In- Vivo* Disease Models

Mumbai, India & Ness Ziona, Israel, June 29, 2020 – AIRAMatrix Pvt. Ltd. ("AIRA Matrix"), the premier provider of Artificial Intelligence (AI) products and services for the Life Sciences industries and Pharmaseed Ltd ("Pharmaseed"), Israel's largest GLP-certified pre-clinical CRO specializing in translational and regenerative studies announced a strategic collaboration for developing AI applications for quantification of histological parameters derived from in-vivo disease models in animal studies.

Pharmaseed offers a selection of *in-vivo* models to suit different research needs including models, for applications in Infectious Disease, Stem Cells/Regeneration, Cell Therapy, Cancer, CNS disorders, Sexual Dysfunction, Inflammation, Nutraceuticals, and Dermatology.
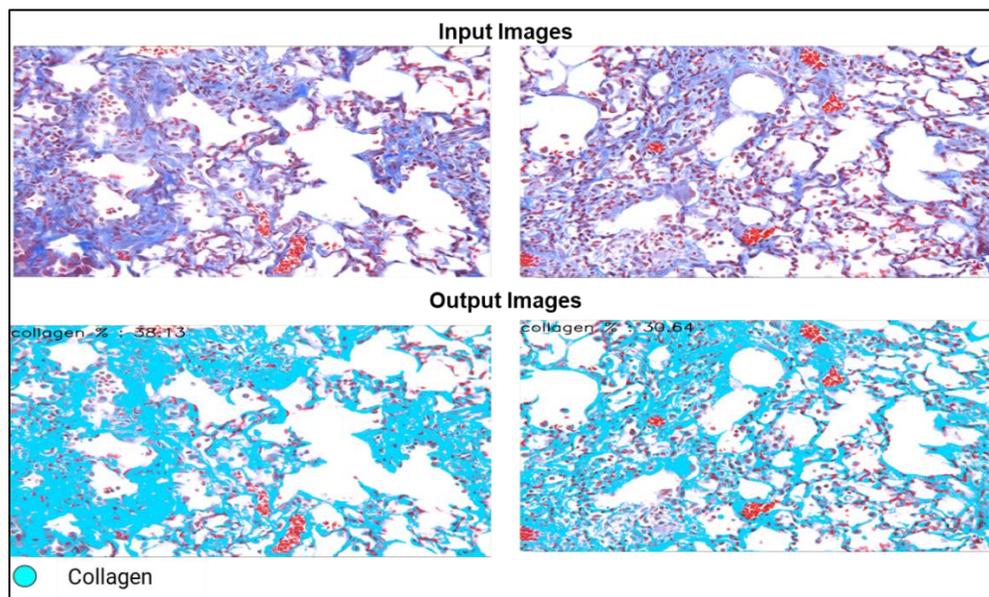
AIRA Matrix has extensive capabilities in the development of AI based quantification of histological parameters in disease models, including a library of existing ones and the ability to rapidly develop custom algorithms to assess new models.

As part of the collaboration, AIRA Matrix will provide AI based image analysis solutions for quantification of disease-related histological attributes and help extend Pharmaseed's capabilities with in-vivo models. This collaboration will ensure pharmaceutical and biotech companies a faster turnaround on results with enhanced accuracy and precision and reduced drug development times and costs.

This collaboration comes at an important juncture when the world unites in fighting the current, unprecedented healthcare crisis. To help aid faster drug development on the CoViD-19 front, this collaboration will initially focus on the deployment of solutions for quantification of acute and chronic lung damage in animal models.
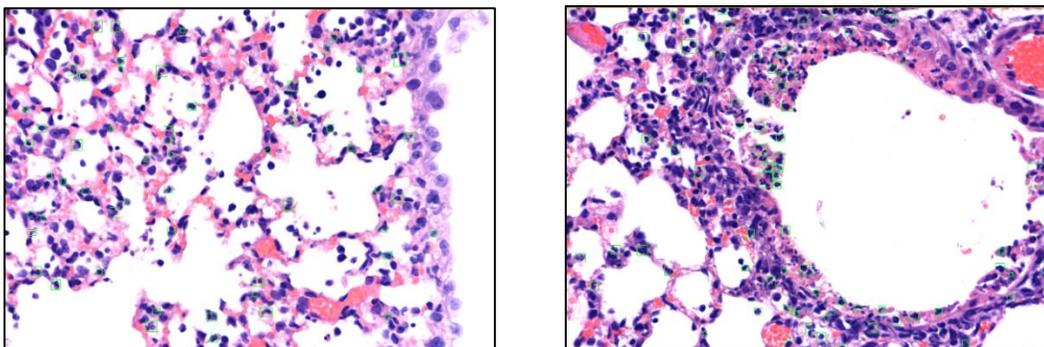
Fibrosis percentage quantification in pulmonary fibrosis using the AIRA Matrix solution

(Rodent Lung, Masson Trichrome Staining at 10X magnification)

Neutrophil quantification in acute lung injury using the AIRA Matrix solution

(Rodent Lung, H&E Staining at 10X magnification)

Output Images

Prof. Abraham Nyska (DVM, Dipl. ECVP, Fellow IATP), a renowned expert in toxicologic pathology, will guide this collaboration and apply AIRA Matrix's deep learning based solution integrated with the Augmentiqs digital pathology platform. Prof. Nyska stated that "Histological findings observed in the animal models resemble those seen in respiratory tract infections in humans. * This rationale will be applied in the development of models to expedite discovery models applicable to CoViD 19."

"We continue to invest in research approaches that support the development of innovative therapies. We are excited to work with AIRA Matrix on its AI applications. This research collaboration adds an additional new platform to our current capabilities in research and deepens our commitment to support our Pharma and Biotech customers in the process of drug development." said Yulie Shirer Rom, Pharmaseed's CEO.

"Our innovative products and services help advance AI applications in Life Sciences and benefit the drug researcher, the manufacturer, the treatment provider and importantly, the individual. We are excited to work with Pharmaseed to provide AI-solutions for the in vivo disease model workflow, with initial emphasis on quantification of acute and chronic lung damage" said Chaith Kondragunta, CEO, AIRA Matrix.

About AIRA Matrix:

AIRA Matrix's artificial intelligence solutions help improve efficiency, accuracy and objectivity of image analysis in the pharmaceutical, bio-research and healthcare industries. Our services help optimize preclinical toxicology and discovery pathology studies thus reducing drug development times and costs.

The company's AI platform AIRAVAT provides for easy design and deployment of customized automation solutions including:

- o Feature quantification
- o Image screening and triaging
- o Disease diagnosis and stratification
- o Risk prediction and monitoring

For more information on AIRA Matrix, please visit www.airamatrix.com or contact Dr. Uttara Joshi at info@airamatrix.com.

About Pharmaseed:

Pharmaseed is a boutique, GLP-certified, company offering pre-clinical R&D trial management and consulting services in the Life Sciences. Pharmaseed´s core competence lies in the area of translational and regenerative medicine projects with expertise in: Infectious diseases, Stem Cell, CNS, Pain, Cancer, Angiogenesis, Inflammation, Dermatology, Metabolic disorders, and Cannabis. For additional information about us, please visit our website: www.pharmaseedltd.com or contact Dr Ilan Winkler at ilan@pharmaseedltd.com

*References:

1) 'https://www.sciencemag.org/news/2020/04/mice-hamsters-ferrets-monkeys-which-lab-animals-can-help-defeat-new-coronavirus.

2) Nagata et al, (2010). Studies of Severe Acute Respiratory Syndrome Coronavirus Pathology in Human Cases and Animal Models Vet Pathol, 47(5):881-92