To: All Alliance members

RE: Global COVID-19 Data Repository Efforts

Dear Alliance Members,

Over the past year the Alliance for Digital Pathology has worked in the pre-competitive space to align the efforts of scientists, physicians, professional societies, patient advocacy groups, industry and public institutions, to define technical and ethical standards in the practice of digital pathology. Currently, there is significant enthusiasm and support for creating a public, global international data repository of COVID-19 cases that will include Whole Slide Images (WSI) and relevant clinical metadata. The recently issued WHO Global Research Roadmap prioritizes research projects elucidating the pathophysiology of the COVID-19-related disease, through histopathologic studies*. A major bottleneck for achieving this goal is the current lack of tissue samples of patients infected with the SARS-CoV-2 virus. Recognizing this WHO initiative as an important application of Alliance-developed standards, we encourage pathologists and institutions who are positioned in areas of the world affected by Covid-19 to use our expertise to further understanding of COVID-19 related mortality by performing autopsies, sharing digital images of these specimens with the global repository.

This is an unprecedented international initiative. A community of people, representing over 12 countries, came together this week to demonstrate their commitment to make this happen. We have support from two well-known companies from the Tech-Against-COVID movement who have already stepped forward with offers of computational resources and funding. As the first step, we ask for institutions and individual pathologists from around the world to contribute anonymized WSI of COVID-19 lung (and if possible, liver and kidney, heart and more) tissue samples. The Alliance for Digital Pathology created a COVID-19 Data Repository committee to streamline and coordinate this effort and ensure we collectively succeed in creating a valuable resource for this pandemic and beyond.

The leadership team of this committee includes Matt Levitt¹, Markus Herrmann² and Amanda Lowe³. It is further supported by a review committee of key participants including Roberto Salgado⁴, Jochen Lennerz⁵, Stephen Hewitt⁶, Ian Cree⁷, Alain Borczuk⁸, Brandon Gallas⁹, Sarah Dudgeon¹⁰ Rajendra Singh¹¹, and Matthew Hanna¹².

¹ Matt Leavitt, Pathologist and Chief Medical Officer, Lumea, USA

² Markus Hermann, Computational Pathology, Department of Pathology, Massachusetts General Hospital/Harvard Medical School, Boston, MA, USA.

³ Amanda Lowe, Visiopharm Corporation, Westminster, CO, USA.

⁴ Roberto Salgado, Department of Pathology, Antwerp, Belgium; Division of Research, Peter Mac Callum Cancer Center, Melbourne, Australia.

⁵ Jochen Lennerz, Center for Integrated Diagnostics, Department of Pathology, Massachusetts General Hospital/Harvard Medical School, Boston, MA, USA.

⁶ Stephen Hewitt, CAPT, USPHS, Head, Experimental Pathology Laboratory, Laboratory of Pathology, Center for Cancer Research, National Cancer Institute, National Institute of Health, USA.

⁷ Ian Cree, International Agency for Research on Cancer, World Health Organization, Lyon, France.

⁸Alain Borczuk, Department of Pathology, Weill Cornell Medicine-Cornell University, NY, USA

⁹ Brandon Gallas, Division of Imaging, Diagnostics, and Software Reliability, Office of Science and Engineering Laboratories, Center for Devices and Radiological Health, Food and Drug Administration, Silver Spring, MD, USA.

¹⁰ Sarah Dudgeon, Division of Imaging, Diagnostics, and Software Reliability, Office of Science and Engineering Laboratories, Center for Devices and Radiological Health, Food and Drug Administration, Silver Spring, MD, USA

¹¹ Rajendra Singh, Icahn School Of Medicine at Mt. Sinai, New York, NY, USA.

¹² Matthew G. Hanna, Department of Pathology, Memorial Sloan Kettering Cancer Center, New York, NY, USA

This entire committee is then supported by you – our collaborators. All collaborators and committee members are governed by the Alliance for Digital Pathology's <u>Code of Conduct</u>, which creates an environment for effective communication that is built on a foundation of respect for each other, our views and our contributions to this effort.

I WANT TO HELP. WHAT CAN I DO RIGHT NOW?

Thank you! This is a rapidly evolving environment and your patience and support as a collaborator are greatly appreciated. To get started please,

- 1. Answer this short Questionnaire >> <u>CLICK HERE.</u> It will take less than 2-minutes.
- 2. If you have access to COVID-19 tissue samples, and the ability to digitize samples in form of WSI, please contact us immediately at data-repository@digitalpathologyalliance.org.
- 3. **Spread the word!** Forward this email, engage others on social media, and let your colleagues around the world know about this effort.

While you and other Alliance members are helping to spread the word by sharing the questionnaire, the Alliance will be working on ways to advocate for the safe and ethical collection of necropsy tissue specimens from SARS-CoV-2 positive patients. We will support these efforts by developing standard operating procedure (SOP) documents and summarizing existing guidelines for performing autopsies on COVID-19 affected patients. In addition, we will work with organizations (such as WHO, NIH and NHS) who can act as trusted stewards of this data, to establish the technical and ethical organizational framework to comply with international standards as well as local rules and regulations. These standard practices include resources for specimen collection, image acquisition, data protocols as well as critical material and/or data transfer agreements. Harnessing our shared interest to overcome the current pandemic, we hope to establish a useful framework that will aid in advancing our understanding of all types of disease and thereby benefit all humanity for generations to come.

On behalf of the Alliance for Digital Pathology and pathologists everywhere – thank you! If you have any other feedback or ideas of how to help the COVID-19 Data Repository committee, please reach out to us at feedback@digitalpathologyalliance.org

References:

* A Coordinated Global Research Roadmap: 2019 Novel Coronavirus, March 2020 R&D Blueprint, pp27-40. https://www.who.int/blueprint/priority-diseases/key-action/Coronavirus Roadmap V9.pdf