Executive Summary

PanSurg was created in recognition of the unparalleled challenges currently facing healthcare systems around the world from the COVID-19 pandemic. This global COVID 19 response, www.pansurg.org, is being led by a consortium led out of London by the Institute of Global Health Innovation with industry sponsorship by Medtronic, Johnson & Johnson with cloud data and analytics powered by Amazon and Amorphic.

The AWS response is being led by Dr. Matthew Howard, International Lead Healthcare Data Sciences & AI/ML at Amazon Web Services (AWS) partnering with Harshdeep Singh, Cloudwick's Director of Operations in EMEA for Amorphic.

Project Details

PanSurg (www.pansurg.org) approached AWS to address the following global pandemic challenges:

1) Aggregate the world's healthcare data on COVID19
2) Use AWS cloud for data and analytics
3) Securely ingest, transform, search, store and analyze patient record data and other structured and unstructured data using artificial intelligence, machine learning and business intelligence.
4) Provide a portal that private and public sector healthcare organizations and physicians can access and analyze pandemic data to develop better treatment plans and accelerated R&D.

AWS & Amorphic

Amorphic is providing Pansurg.org with a fully managed AWS unified data and analytic platform using Redshift, Athena, Glue, SageMaker, Elastic Search and more than 30 AWS services to ingest, analyze and securely share these pandemic data sets in a race to improve treatment success and develop a vaccination:

- **Structured data:** PanSurg has developed a structured patient data collection template and is looking to roll this out as widely as possible.
- **Clinical unstructured data**: e.g. literature, case reports, letters.
- **Non-clinical unstructured**: e.g. news feeds, social feeds.
- **Non-traditional sources**: e.g. significant amount of clinical data sharing is going on in WhatsApp groups, etc.
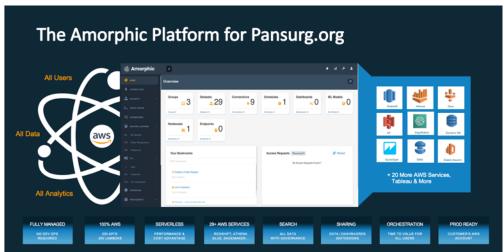
About Amorphic

Amorphic, the Unified Data and Analytic Platform for AWS, is a fully-managed production-ready platform that provides governed data sharing, orchestration and automation for all users across these AWS Focus 40 services:

- **Redshift**
- **Athena**
- **Glue**
- **SageMaker ML**
- **SageMaker AI**
- **SageMaker Notebooks**
- **Elastic Search**
- **Dynamo DB**
- **EC2**
- **QuickSight**
- **Cognito**
- **Lambda**
- **+ 20 more**

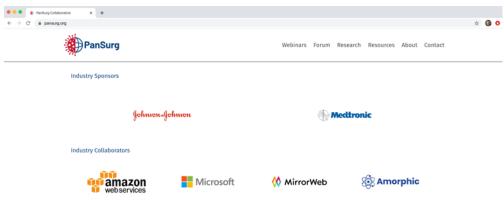The Amorphic Platform for Pansurg.org

AWS & Amorphic COVID 19 Response Goal

The AWS & Amorphic unified data and analytic platform enables 'live systematic review' i.e. the continuous prospective evidence assimilation, mining and synthesis from a wide range of sources to support guidance development. In the longer term it will also support predictive modelling and development of clinical decision support tools/decision trees, etc.

COVID 19 Industry Consortium

To Learn More Contact:

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