

Ossianix is developing therapeutic single domain VNAR antibodies to the COVID-19 spike protein

Philadelphia, Apr 7, 2020 ([Issuewire.com](https://www.issuewire.com)) - Ossianix is responding to the COVID-19 pandemic by developing therapeutic single domain VNAR antibodies to the COVID-19 spike protein.

The current COVID-19 pandemic is a healthcare catastrophe of global proportions. There are no treatments for the disease and a vaccine will take time to develop and may be unsuitable for older patients with a weakened immune response. Therefore, alternative immunological approaches are being considered for therapeutic development. Passive immunization via antibodies that target and neutralize the virus is an attractive option since off-the-shelf antibodies offer immediate protection to at-risk populations including health care workers. There are already early reports of antibodies cloned from B cells of infected individuals, as well as monoclonal antibodies developed from humanized mice, but it is likely that cocktails of antibodies will be required to provide maximum coverage.

Single domain VNAR antibodies have large CDR3 binding domains that preferentially bind cavities and buried epitopes in proteins. These are often the sites of protein-protein interactions. It is thus highly likely that screening of our highly complex, multi-isoform VNAR libraries built on a non-immunogenic scaffold will identify hits that will be different from those isolated from human B cells or other immunization approaches. Once identified, VNAR single domain antibodies that block the viral entry can then be developed using the well-established pathway for conventional antibodies.

In addition, Ossianix has identified and patented VNAR antibodies that bind to the human transferrin receptor and have the capability to specifically target the lung in rodents and non-human primates. These VNARs can be fused to antibodies or other therapeutics creating bispecific biologics for targeted delivery to the lung which is a major site of infectivity.

The screening campaign against the COVID-19 spike protein at Ossianix is advancing rapidly and we hope to announce the results to the scientific community over the coming weeks. Ossianix wishes to partner after this screening stage with interested parties in government, academia or biotech and pharma companies to develop the COVID-19 blocking VNAR antibodies and move the project to a therapeutic reality in the shortest possible time.

About Ossianix

Ossianix is a privately held research company based in Philadelphia, PA with research laboratories in Stevenage, UK. It develops novel biopharmaceuticals for a number of therapeutic areas including CNS. The company utilizes the versatile single domain shark VNAR scaffold to engineer unique differentiated products in a variety of formats including monospecific and bispecific antibodies. The company was founded by former senior executives from Wyeth and Pfizer, Drs. Frank S. Walsh, Corey S. Goodman and J Lynn Rutkowski.

For more information please visit www.ossianix.com

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