DHR Health
Institute for Research and Development
To Discover | To Innovate | To Excel

February 2022

THE RESEARCH SPECTATOR

First UTRGV-DHR Health Cancer Research Summit

To continue to enhance its ongoing academic affiliation with the University of Texas Rio Grande Valley (UTRGV), the DHR Health Institute for Research and Development (DHR-IRD) has signed a Master Research Affiliation Agreement. Articulation of this agreement would allow the two institutions to continue to work together to augment basic, translational, and clinical research collaborations in areas such as cancer, liver disease, infectious disease, cardiovascular disease, diabetes, stroke, trauma, etc.

On February 12, 2022, UTRGV and DHR-IRD held its 1st Health Cancer Research Summit at the UTRGV Biomedical Research Facility in Edinburg, TX.

- Attendees of the summit have identified the following areas of collaboration:
- Jointly submit grants to NIH, CPRIT, and other funding agencies
- Enhance translational research infrastructure
- Jointly recruit cancer research faculty/physician investigator
- Create opportunities for students, residents, and fellows to participate in collaborative research
- Produce joint publications

Both UTRGV and DHR-IRD are committed to initiate innovative research studies in cancer that would benefit our community.

COVID-19 UPDATES

Fourth Dose of Pfizer/BioNTech or Moderna COVID-19 Vaccine

DHR Health Institute for Research and Development is currently offering a second booster (a fourth dose) of either Pfizer/BioNTech or Moderna COVID-19 vaccine to eligible individuals. This is being offered through a research study conducted by DHR Health Institute for Research and Development.

To qualify for the research trial, individuals should be:

- Healthcare workers employed or affiliated with DHR Health, Renaissance Medical Foundation, DHR Partners, or Starr County Memorial
- Immunocompromised adults 18 years and over that have been fully vaccinated (2 doses) with the Pfizer BioNTech COVID-19 vaccine and with the 1st booster at least 90 days prior to the 2nd booster
- Any adult age 65 years and older

Once the participants have consented to participate in the study, they will be given an appointment to appear at the DHR Health Institute for Research & Development at 5323 S. McColl Road, Edinburg or Starr County Memorial Hospital, 128 N FM 3167, Rio Grande City, TX 78582 or Brownsville ISD, 708 Palm View, Suite 214, Brownsville, TX 78520 or CSID School Based Health Center, 1601 E. Sprague Street, Edinburg, TX, 78542.

Upon arrival each participant will register with DHR staff. In order to assess the presence of antibodies against SARS-CoV-2, participants will be asked to provide a baseline blood sample on the day of administration of the fourth dose of Pfizer/BioNTech (BNT162b2) and/or Moderna Vaccine. There will be 2 tubes of blood collected, one of which will be sent for semi-quantitative anti-SARS-CoV-2 IgG titers. Subsequently, every study participant will receive 30ug in 0.3 ml of Pfizer/BioNTech or 0.25 ml of Moderna vaccine administered intramuscularly. Participants will be monitored for 15 minutes post vaccination at which time the visit will end.

Participants will be asked to return at Day 21, Week 12, and Week 24 for blood collections to determine anti-SARS-CoV-2 antibody titers and to analyze T-cell immune responses.

COVID-19 TREATMENT UPDATE*

MONOCLONAL ANTIBODIES	PATIENTS SCREENED	DOSES DISPENSED	CURRENT INVENTORY
Bamlanivimab	3735	260	32 (Ceased Monotherapy as of 03/24/2021 as per FDA notification)
REGN-COV2			11 (292 doses transferred to TDEM on 12-30-2021 and 20 doses on 01-07-2022)
Therapeutic		328**	
Post-Exposure Prophylaxis		54***	
Bamlanivimab + Etesevimab		08	0 (112 doses transferred to TDEM on 12-30-21)
EVUSHELD™		100	240
Sotrovimab		08	04
Fourth Dose of Pfizer/BioNTech COVID-19 Vaccine		186	
TOTAL:	3735	944	244

*as of February 21, 2022 **paused as of 01/24/2022 ***paused as of 12/06/2021

DHR Health Institute for Research and Development

COVID-19 UPDATES CONTINUED

SOTROVIMAB

DHR Health Institute for Research and Development is currently offering monoclonal antibody treatment for mild-to-moderate COVID-19 positive patients who are high risk for progression to severe COVID-19.

On May 26, 2021 the U.S. Food and Drug Administration issued an Emergency Use Authorization (EUA) to use Sotrovimab for the treatment of mild-to-moderate coronavirus disease 2019 (COVID -19) in adults and pediatric patients (12 years of age and older weighing at least 40 kg) with positive results of direct SARS-CoV-2 viral testing, and who are at high risk for progression to severe COVID-19, including hospitalization or death.

Sotrovimab is a recombinant human IgG1-kappa mAb that binds to a conserved epitope on the spike protein receptor binding domain of SARS-CoV-2 with a dissociation constant (KD = 0.21 nM), but does not compete with human ACE2 receptor binding. It inhibits an undefined step that occurs after virus attachment and prior to fusion of the viral and cell membranes.

Patients with medical conditions such as obesity, pregnancy, older age, chronic kidney disease, diabetes, sickle cell disease, etc. are at a higher risk for progression to severe COVID-19 and could qualify to receive Sotrovimab. However, Sotrovimab must be diluted and administered as a single IV infusion over 30 minutes and should be given as soon as possible after positive results of direct SARS-CoV-2 viral testing and within 10 days of symptom onset.

EVUSHELD

DHR Health Institute for Research and Development is currently offering long-acting monoclonal antibody treatment to PREVENT COVID-19 in high-risk patients. This is the only treatment currently available to prevent infection by the Omicron variant of SARS-CoV-2…the virus that causes COVID-19.

On December 8, 2021, the U.S. Food and Drug Administration issued an Emergency Use Authorization allowing the use of AstraZeneca's long-acting antibody EVUSHELDTM to be used for prevention of COVID-19 in subjects 12 years and older with moderate to severe immunocompromised status before exposure to the virus.

EVUSHELD is an investigational medicine used in adults and adolescents (12 years of age and older who weigh at least 88 pounds [40 kg]) for the prevention of COVID-19 in individuals who are:

- not currently infected with SARS-CoV-2 and who have not had recent known close contact with someone who is infected with SARS-CoV-2 and
- Who are moderately to severely immunocompromised due to a medical condition or have received immunosuppressive medicines or treatments and may not mount an adequate immune response to COVID-19 vaccination or
- For whom vaccination with any available COVID-19 vaccine, according to the approved or authorized schedule, is not recommended due to a history of severe adverse reaction (such as severe allergic reaction) to a COVID-19 vaccine (s) or COVID-19 vaccine ingredient(s).

EVUSHELD consists of 2 investigational medicines, tixagevimab and cilgavimab given through intramuscular injection. There is a 1 hour post monitoring provided for every patient after doses have been administered.

DHR Health currently has 250 doses of EVUSHELD for administration to immunocompromised individuals and has administered over 90 doses to residents of the Rio Grande Valley.

Research Opportunities

Cardiometabolic Genome Study

Baylor College of Medicine Human Genome Sequencing Center Clinical Laboratory and DHR Health have collaborated to develop a custom test targeting genes that influence risk for cardiovascular disease, diabetes, and related conditions. This can help identify genetic risks that can lead to personalized treatment and better health outcomes. With only one blood collection, the results can help the patient and their family identify underlying conditions for proactive care. This study tests for unusual types of diabetes, aortic aneurysms, cardiomyopathies, arrhythmias, high cholesterol, and medication sensitivity. All results will be returned to the patients and their care providers, and there's no cost to them or their insurance.

For additional information please contact the Clinical Research Coordinator Kayllie Lomeli at k.lomeli@dhr-rgv.com or 956-362-2393.

Liver Institute and Research

Researchers at DHR Health Institute for Research and Development are involved in numerous innovative clinical studies designed to treat patients with liver diseases such as NASH, NAFLD and liver cirrhosis. The clinical trials are carried out the DHR Health Liver Specialty Center and the DHRH—IRD by a dedicated team of trained physicians and clinical research coordinators.

To screen for liver diseases the Research Liver Team hosts Fibroscan® events to scan patients and provide them with information abut non-alcoholic fatty liver diseases. Fibroscan® is a non-invasive, diagnostic-ultrasound-based device used to measure liver scarring (fibrosis), caused by different liver diseases. Similar to a conventional ultrasound exam, outpatient Fibroscan® testing is quick, painless, and easy and provides a non-surgical alternative to the traditional liver biopsy to assess liver damage.

After the Fibroscan® event is completed, the results are reviewed by our board certified hepatologist. Along with an interpretation, a recommendation for the primary care provider is included; which can include no follow-up, follow-up with the primary care provider, a recommendation of referral to a hepatologist, or recommendation of referral to research. A Clinical Research Coordinator will then fax the results, interpretation, and recommendation to the patient's primary care provider and contact the patient with information.

For additional information please contact the Research Liver Team:

Guillermo Duran	Frank Cimino	John Rodriguez
956-362-8047	956-362-2356	956-362-2378

Research Team Spotlight: Kayllie A. Lomeli

Kayllie Lomeli currently serves as a Clinical Research Study Coordinator at the DHR Health Institute for Research and Development. She recently graduated with a Bachelor of Science in Biomedical Engineering with a focus in bio-instrumentation from Texas A&M University in College Station, Texas where she achieved Texas A&M University Century Scholar. Before joining DHR, she gained research experience with the Grunlan Research Group where she conducted and directed experiments on cross linked hydrogels to implement self-cleaning membranes for glucose biosensors. Kayllie also has a background in bio-instrumentation, information technology, and coding. In the future, she plans on becoming a research and development engineer. She is currently the Clinical Research Coordinator on the Cardiometabolic Genome Study. In her free time, she enjoys crafting, cooking, and spending time with loved ones.

Email: k.lomeli@dhr-rgv.com

Investigator Spotlight: Praveen Vijhani, MD

Dr. Praveen Vijhani studied at the University College of Medical Sciences in Delhi, India where he received his medical degree. He then completed his residency at Cleveland Clinic Foundation in Cleveland, Ohio. Dr. Vijhani continued his training with a Clinical Fellowship in Pulmonary and Critical Care at the University of Texas Health Science Center at Houston, Texas.

During his career Dr. Vijhani has held many academic and professional positions at University of Kentucky, Baptist Health Hospital, Lincoln Memorial University the University of Texas Rio Grande Valley and the Doctor's Hospital at Renaissance Health System. He is also currently the principal investigator for the ISPY COVID-19 trial.

Dr. Vijhani is a Critical Care Physician at DHR Health System and an Assistant Professor for the Department of Internal Medicine at the UTRGV. Dr. Vijhani is board certified by the American Board of Internal Medicine in the area of Pulmonary Medicine.

New Additions to the DHR Health Institute for Research and Development Team

Amelia Carranco LVN
LVN Lay Health Educator
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DHR Proceedings

DHR Proceedings is one of the premier peer-reviewed health sciences journals in general and specialty medicine. It is the first such scientific journal to be published in the Rio Grande Valley. DHR Proceedings is sponsored by DHR Health Institute for Research & Development and invites submission from authors in the region and worldwide.

DHR Proceedings can be accessed at: https://dhrproceedings.org/index.php/DHRP/index

DHR Proceedings is currently welcoming submissions for a projected publication date in the spring of 2022.

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