GREAT PLAINS IDeA | Clinical and Translational Research

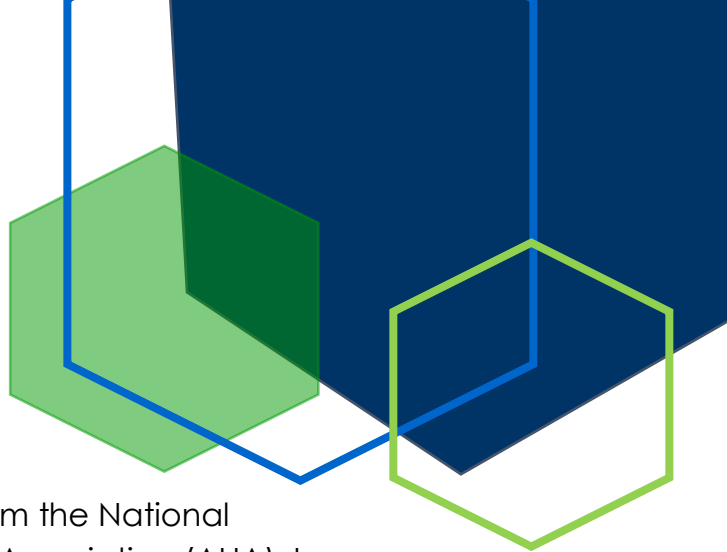# GREAT PLAINS PRIMARY CARE PRACTICE-BASED RESEARCH NETWORK NEWSLETTER

Pre-Clinical Pilot Data Show Promise for a New Anti-Hypertensive Drug

Heart disease is the leading cause of death in Nebraska. One in three Nebraskan adults has hypertension, a leading risk factor for heart disease. Although numerous anti-hypertensive therapies are currently available, about 30% of hypertensive patients taking three or more of these drugs remain hypertensive. Poor medication adherence and limitations of current anti-hypertensive drugs contribute to the uncontrolled hypertension in these patients. Therefore, there is a critical need to develop new medications and therapeutic strategies to enhance patient medication adherence for the improved treatment of hypertension.

Dr. Matt Zimmerman's research group in the Department of Cellular & Integrative Physiology at the University of Nebraska Medical Center (UNMC) is focused on meeting this critical need. With support from a pilot project funded by the GP IDeA-CTR and the UNMC's Center for Heart and Vascular Research (CHVR), his group is investigating how a small molecule drug (named BuOE) that mimics the activity of an

antioxidant protein human cells make, called superoxide dismutase (SOD), decreases elevated blood pressure. Results from his 2020 pilot project suggest that BuOE rapidly decreases hypertensive blood pressure in pre-clinical animal models of hypertension by inhibiting sympathetic nerve activity, a well-known regulator of blood pressure. These data have led to new hypotheses that Dr. Zimmerman hopes to test with additional funding from the National Institutes of Health (NIH) and/or the American Heart Association (AHA). In particular, considering unique regions in the brain are known to control sympathetic nerve activity, Dr. Zimmerman speculates that delivering BuOE to the brain will be beneficial in decreasing hypertensive blood pressure. He further hypothesizes that intranasal delivery of BuOE two-to-three times per week will improve delivery of the drug to the brain, while also enhancing patient medication adherence. These future pre-clinical studies taken together with the results of Dr. Zimmerman's current pilot project will lay the foundation for his research group's long-term goal of translating drugs that mimic SOD protein to the clinic for the improved treatment of hypertension.

PROFESSIONAL DEVELOPMENT

The Great Plains Primary Care PBRN provides links to professional development opportunities, in the form of seminars and webinars, that enhance clinical expertise, reveal best care practices, promote clinical research, and deliver cutting-edge research findings. Continuing education credits are available for in-person and distance participation. For a complete list of professional development opportunities, visit the PBRN Education and Seminars webpage.

Studying COVID-19 Using Real-World Data

Join Dr. Kenneth Gersing, Director of Informatics at the National Institutes of Health, as he discusses N3C, the largest collection of electronic health record data on COVID-19 patients in the world, lessons learned after one year of studying COVID-10, and future directions and opportunities. See the flier below for more information.

Thursday, May 13th, 2020 | 12:00 PM-1:00 PM
Click here for the Zoom link
Webinar ID: 93087267460   Webinar Password: 140321

Great Plains Interoperability Conference 2021: Technology Advancing Health Care in the Great Plains

The Great Plains Interoperability Conference brings together regional providers, researchers, and technologists to improve healthcare by accelerating advanced healthcare data interoperability. This first gathering of regional stakeholders leading the process and technology of regional health information exchange will explore opportunities, technologies, and obstacles involved in the rapidly expanding interconnectedness of health data. CyncHealth (formerly known as NEHII) leads the way as Nebraska's health information exchange. CyncHealth, and its research arm, the Nebraska Healthcare Collaborative, builds on the technology provided by InterSystems to deploy the regional infrastructure for healthcare data sharing. The event is co-sponsored by the Great Plains IDeA Clinical and Translational Research Network (GP IDeA-CTR), the University of Nebraska Biomedical Informatics Graduate Program, and Logica; the international consortium focused on developing standards to support interoperability.

There is no cost to attend. Register here: Webinar Registration - Zoom

See the flier below for more information or contact alfred.anzalone@unmc.edu

RESEARCH

The following studies are recruiting participants. Please share these opportunities with your patients and healthcare community. A complete list of ongoing research can be found on the PBRN Research webpage.

New Study Aimed at the Detection and Diagnosis of Alzheimer's Disease

The Mind & Brain Health Labs at the University of Nebraska Medical Center has recently launched a new National Institutes of Health study aimed at detecting and treating Alzheimer's disease (AD). The Mind & Brain Health Labs is asking for your help and support by recruiting patients, specifically those with mild cognitive impairment (MCI) or Alzheimer's disease (AD). We simply ask that if you identify a potential participant, that you please mention our study and hand out a flier attached at the end of the newsletter. If interested, the patient may then contact us directly at 402-559-6870 or mbhl@unmc.edu

The Mind & Brain Health Labs just started enrolling participants and will enroll participants for 3 years. Generally, people must meet the below criteria. The Mind & Brain Health Labs will do further screening for eligibility if a person indicates interest.

- Aged between 65-90 years old
- Legally licensed and active driver
- Capacity for informed consent

The goal of this study is to improve our ability to detect and diagnose the earliest clinical manifestations of AD using people's own driving, sleep, and mobility patterns to index early warning signs of disease. We will monitor participants for 3 months and then follow-up approximately 1 year and 2 years later to monitor/predict disease progression and development. IRB #522-20-FB

Great Plains Cognitive Network, "GP CogNET"

Symptoms of Alzheimer's disease may lag decades behind brain changes. We invite all adults 50 years of age and older to enroll in the Great Plains Cognitive Network, GP CogNET, a research registry linking community members to Alzheimer's disease and brain health-focused clinical research. Enroll online at https://gp.cognet.unmc.edu. For more information, contact gp.cognet@unmc.edu. IRB #214-19-EP

Updates

The PBRN Board of Directors has been meeting monthly to provide oversight of activities to achieve the PBRN vision and mission. All PBRN Board of Directors meeting documents can be found here. If you are interested in serving on the PBRN Board of Directors, contact Emily Frankel at emily.frankel@unmc.edu

We are planning a virtual network meeting this summer. Watch your email for more information on a date and meeting topics. Have an idea to discuss? Let us know!

Do you have a clinical research question? Are you interested in collaborating with other clinical investigators? Is there an evidence-based practice you would like to implement in your clinic for quality improvement? Fill out the Great Plains Primary Care PBRN Request here.

To ensure you are included on all PBRN correspondences, please complete the Membership Survey.

Have information, news, or an event to include in the next newsletter? Contact Emily Frankel at emily.frankel@unmc.edu

The Great Plains IDeA-CTR is a collaborative effort between nine biomedical research institutes across the Great Plains.

To learn more about the Great Plains Primary Care PBRN, visit:

https://gpctr.unmc.edu/ctr-resources/pbrn/

@GPIDeACTR

Studying COVID-19 Using Real-World Data: Lessons Learned and Steps Forward After One Year of the National COVID Cohort Collaborative (N3C)

Kenneth Gersing, MD
Director of Informatics
Division of Clinical Innovation
National Center for Advancing Translational Sciences
National Institutes of Health

Since 2020, Dr. Gersing has co-led the National COVID Cohort Collaborative (N3C). N3C is a partnership among the NCATS-supported Clinical and Translational Science Awards (CTSA) Program hubs, the National Center for Data to Health (CD2H), and NIGMS-supported Institutional Development Award Networks for Clinical and Translational Research (IDeA-CTR), with overall stewardship by NCATS. N3C is largest, most secure clinical data resources for COVID-19 research.

Discussion:

- N3C is the largest collection of electronic health record (EHR) data on COVID-19 patients in the world
- Lessons learned after one year of studying COVID-19 using real-world data
- Future direction and opportunities
- Team Science and working across borders to study COVID-19

Presented by:

Advance Clinical Translational Research
Cite: U54GM115677

DaCCoTA
DAKOTA CANCER COLLABORATIVE ON TRANSLATIONAL ACTIVITY

GREAT PLAINS
IDeA | Clinical and Translational Research

LA CaTS
LOUISIANA CLINICAL & TRANSLATIONAL SCIENCE CENTER

NORTHERN NEW ENGLAND CLINICAL & TRANSLATIONAL RESEARCH NETWORK

SCTR
Oklahoma Shared Clinical & Translational Resources

MCCT MISSISSIPPI CENTER FOR CLINICAL AND TRANSLATIONAL RESEARCH

WVCTSI

Zoom: https://unmc.zoom.us/j/93087267460
Passcode: 140321

Great Plains Interoperability Conference 2021

Technology Advancing Health Care in the Great Plains.

May 11-12, 2021

Presented by

Tuesday, May 11, 2021 | 8:30 AM – 12:30 PM CST

8:30 AM   **Introduction to Conference and Topics**
James McClay, MD, MS, Director, GP IDeA-CTR Biomedical Informatics Core

9:00 AM   **The Vision of Regional Health Information Interoperability: CyncHealth and the Nebraska Healthcare Collaborative**

Jamie Bland, DNP, RN, President and Chief Executive Officer, CyncHealth
Joy Doll, OTD, OTR/L, Chief Academic Program Officer, Nebraska Healthcare Collaborative

9:45 AM   **Improving Social Health through Unite Nebraska**

Melanie Surber, MSN, RN, Chief Clinical Officer, CyncHealth

10:30 AM   **InterSystems HealthShare Unified Care Record**

Jack Vargas, MD, Physician Executive, InterSystems

11:15 AM   **Advancing Rural Health Research: The Great Plains Practice Based Research Network**

Jeffrey Harrison, MD, Chair, GP Primary Care PBRN

11:30 AM   **The Technology of Interoperability - What are the 21st Century Cures Regulations Talking About?**

James McClay, MD, MS, Director, Biomedical Informatics Graduate Program, UNMC

Wednesday, May 12, 2021 | 8:30 AM – 12:30 PM CST

8:30 AM   **FHIR Tutorial. A hands-on overview of the Fast Healthcare Interoperability Resources (FHIR) specification and implementation. Demonstration of successful integration.**

Laura Heermann Langford PhD, RN, Chief Operating Officer, Logica Health

Russell Leftwich, MD, Senior Clinical Advisor, Interoperability, InterSystems

James McClay, MD, MS, Professor, Emergency Medicine, UNMC

Mission Statement: The Great Plains Interoperability Conference brings together regional providers, researchers, and technologists to improve healthcare by accelerating advanced healthcare data interoperability. This first gathering of regional stakeholders leading the process and technology of regional health information exchange will explore opportunities, technologies, and obstacles involved in the rapidly expanding interconnectedness of health data. CyncHealth (formerly known as NEHII) leads the way as Nebraska's health information exchange. CyncHealth, and their research arm, the Nebraska Healthcare Collaborative, build on the technology provided by InterSystems to deploy the regional infrastructure for healthcare data sharing. The event is co-sponsored by the Great Plains IDeA Clinical and Translational Research Network (GP IDeA-CTR), the University of Nebraska Biomedical Informatics Graduate Program, and Logica; the international consortium focused on developing standards to support interoperability.

TO LEARN MORE, PLEASE VISIT: https://gpctr.unmc.edu/training-education/2021-great-plains-interoperability-conference/
TO REGISTER, PLEASE VISIT: https://unmc.zoom.us/webinar/register/WN_hWcanUCITIG_gsgWNOPgBg
COST: FREE

Researchers are looking for seniors diagnosed with Mild Cognitive Impairment or Alzheimer's Disease for a driving study

Our goal is to improve the ability to diagnose Alzheimer's disease by understanding how it affects driving safety.

What does this research study involve?

- You will participate for 3 months, which includes:
  - Installing a camera in your personal vehicle to record your driving
  - Wearing a Fitbit-like device to record your sleep and activity
  - Attending 3 study visits (3 - 4.5 hours long)
- After the 3 months, you will have follow-up visits 1 year and 2 years later.

You can participate if:

- Have been diagnosed with Mild Cognitive Impairment (MCI) or Alzheimer's
- Between the ages of 65-90 years old
- Legally licensed and active driver

Compensation is provided.

Interested? Contact the Mind & Brain Health Labs

402-559-6870 | mbhl@unmc.edu | bit.ly/3dpMeAn   IRB #522-20-FB