

# Two collaborative teams awarded first round of Collaborative and Stakeholder Engaged Pilot Grants

October 11, 2019 -- The Community and Collaboration Component (C&C) of the CTSC has selected two collaborative teams to receive the first round of Collaborative and Stakeholder Engaged Pilot Awards. Recipients needed to demonstrate they were a multidisciplinary research team with a special focus on the integration of community, clinical and/or industry stakeholders as part of the research endeavor, working together on translational research projects to improve population health.

Translation, as defined by the National Center for Advancing Translational Sciences, is described as “the process of turning observations in the laboratory, clinic, and community into interventions that improve the health of individuals and populations – from diagnostics and therapeutics to medical procedures and behavioral interventions.”

The two inaugural CTSC C&C pilot recipients are:

**CTSC COMMUNITY AND COLLABORATION  
PILOT GRANT RECIPIENT**

**"VIRTUAL ASSISTANT SYSTEM TO ENHANCE  
PATIENT SELF-MEDICATION OUTCOMES"**

An interdisciplinary approach, in direct collaboration with a community care facility, to identify medication management challenges and develop a new interactive "virtual assistant" decision-support technology platform that can be tested to see how well it improves medication adherence, patient quality of life and outcomes.

**TEAM:**  
PI: **Colin Drummond, PhD** (Biomedical Engineering)  
**Shanina Knighton, PhD, RN, Celeste Alfes, DNP, RN** and  
**Elizabeth Zimmermann, DNP, RN** (School of Nursing)  
**Scott Frank, MD, MS** (School of Medicine)  
**Miriam L. Pekarek, BS & Eve E. Davis, RN** (Ohio Living Breckenridge Village)  
**Patients and their Caregivers** at Ohio Living Breckenridge Village

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## “Virtual Assistant System to Enhance Patient Self-Medication Outcomes”

An interdisciplinary approach, in direct collaboration with a community care facility, to identify medication management challenges and develop a new

interactive “virtual assistant” decision-support technology platform that can be tested to see how well it improves medication adherence, patient quality of life and outcomes.

## TEAM

Principal Investigator: Colin Drummond, PhD (CWRU Biomedical Engineering)

Shanina Knighton, PhD, RN, Celeste Alfes, DNP, RN, and Elizabeth Zimmermann, DNP, RN (CWRU School of Nursing)

Scott Frank, MD, MS (CWRU Population and Quantitative Health Sciences/Family Medicine/Public Health)

Miriam L. Pekarek, BS (Outpatient Therapy, and Ohio Living Home Health and Hospice at Breckenridge Village) (Stakeholders)

Patients and their Caregivers at Breckenridge Village (Stakeholders)

## **“Translating A Product That Prevents Surgical Adhesions into a Large Animal Model”**

This multidisciplinary team identified a low-cost, biocompatible device coating that can prevent or reduce post-surgical complications including fibrosis, scarring, and unwanted adhesions. The successful findings of this work in rodent models proved the need to provide key data in a clinically relevant pig model to continue the translation of these findings eventually into the patient population, where the burden of post-surgical complications could be greatly reduced, especially among those with greater risks for complications. The findings from this pilot effort will be crucial in forming commercial partnerships with major mesh manufacturers in biomedical engineering.

## TEAM

Principal Investigator: Horst von Recum, PhD (CWRU Biomedical Engineering)

Co-Investigator: Michael Rosen, MD , Professor, Surgery (Cleveland Clinic) (Stakeholder)

Julius Korley, PhD, MBA , CEO of Affinity Therapeutics, Cleveland, OH (Stakeholder)

Community of local surgeons (Stakeholders)