

## Team Science Spotlight

### Colin Drummond, PhD

Professor, Department of Biomedical Engineering

“If you don’t get the patients’ needs right, you are bound to fail,” notes Professor and Assistant Chair of the Department of Biomedical Engineering, Dr. Colin Drummond, whose interdisciplinary team was recently awarded a pilot grant from the Clinical & Translational Science Collaborative’s Community and Collaboration core. These grants fund interdisciplinary research teams with engaged stakeholders conducting translational research. Dr. Drummond’s team, which also includes colleagues from the School of Nursing and the School of Medicine along with caregiver professionals from a community care facility, will identify medication self-management challenges and develop a new interactive “virtual assistant” decision-support technology platform to improve patient quality of life and outcomes.

Drawing on a long history of working with colleagues from other fields, Dr. Drummond and his team truly understand the value of working across disciplines and most importantly involving patients and other stakeholders in the process from the beginning. Dr. Drummond credits this approach to his experience with the Stanford Biodesign program which focuses on starting design with a patient need. Including caregivers as integral members of the research team is essential for these investigators as they believe it allows them to genuinely understand patient need and design something which addresses these needs.

Another key to team science for Dr. Drummond is putting together members of an interdisciplinary research team based on their competencies which ensures that everyone has a meaningful role, and that there are a diversity of problem-solving perspectives at the table. After that, it is all about building relationships, which requires time and trust. Dr. Drummond’s self-proclaimed mantra is “(You) have to have congruence - what you think, say and do have to align. If you don’t have congruence you won’t build trust. If you don’t build trust, you won’t build a team. If you don’t build a team you won’t get anything done.”



**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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