Emotion regulation (ER) is the process of changing one’s emotions in order to maintain a preferred emotional state (Thompson, 1994).

ER is associated with:
- Interpersonal functioning (Webb et al., 2012)
- Pain and fatigue (Bruhelt et al., 2008; Van Middendorp et al., 2008)
- Depression and anxiety (Mennin et al., 2007)

Authors have recently called for the study of ER in the context of health psychology (DeSteno et al., 2013).

Patients with cancer recurrence are particularly appropriate for study:
- More emotionally intense than initial diagnosis (Thornton et al., 2014)
- Poor prognosis and high symptom burden (Yang et al., 2008)
- Likely to evoke intense emotions (Stanton & Low, 2012)

Research is needed to understand how patients regulate their emotions.

An ER model was tested using longitudinal data from patients with breast cancer recurrence (N=122).

### Measures

- Affect operationalized as composite variables, including the following:
  - Profile of Mood States (POMS)
  - Center for Epidemiologic Studies Depression Scale (CES-D)
  - Beck Hopelessness Scale (BHS)
  - Life Orientation Test – Revised (LOT-R)
- Emotion Regulation: COPE
  - Engagement: planning, reframing, seeking support
  - Disengagement: denial, alcohol use, behavioral withdrawal, avoidance
- Quality of Life (QoL): SF-36 Mental Component Summary (MCS)

### Results

**Figure 1. Engagement mediates negative affect and QoL.**

\[
\text{Mediation (AB path): } \beta = 5.96^*, SE = 4.03
\]

**Figure 2. Engagement mediates positive affect and QoL.**

\[
\text{Mediation (AB path): } \beta = 2.08^*, SE = 3.40
\]

**Figure 3. Disengagement mediates negative affect and QoL.**

\[
\text{Mediation (AB path): } \beta = 4.62^*, SE = 4.26
\]

**Figure 4. Disengagement mediates positive affect and QoL.**

\[
\text{Mediation (AB path): } \beta = 2.74^*, SE = 4.12
\]

- Positive and negative affect significantly predicted later QoL (p<0.05); this pathway remained significant in models involving negative affect.
- Significant mediating effects (p<0.05) found for both ER strategies, such that greater use of both strategies was associated with higher QoL one year later.

### Discussion & Implications

- This study is the first to examine ER in patients with recurrent cancer and highlights the important role of ER in this context.
- For this population, interventions designed to increase ER (both engagement and disengagement) may improve QoL.

Special thanks to the patients who participated in this study for their support and assistance, as well as the staff of the Stress and Immunity Cancer Projects, Divisions of Medical & Surgical Oncology at the Ohio State University, and the Comprehensive Cancer Center.

American Cancer Society (PBR-89, RSGPB-03-248-01-PPB), Longaberger Company, American Cancer Society Grant for Breast Cancer Research (PBR-89A), U.S. Army Medical Research Acquisition Activity Grants (DAMD17-94-J-4165, DAMD17-96-1-6294, DAMD17-97-1-7062), National Institutes of Mental Health (1 R01 MH51487), the National Cancer Institute (K05 CA098133, R01 CA92704), the General Clinical Research Center (M01 RR0034), and The Ohio State University Comprehensive Cancer Center (P30 CA16086).