$100,000 Joint Pilot Program
(Applications Due: August 24, 2020   Awards Made: September 14, 2020)

Objectives

The National Institute of Mental Health-funded *ETUDES Center* within the University of Pittsburgh's Department of Psychiatry seeks to identify and build long-term collaborative relationships with Carnegie Mellon University's *Human-Computer Interaction Institute* (HCII). Towards that goal, they have organized a Joint Pilot Program whose goals are to develop novel technologic solutions for identifying, triaging, and/or managing depressed and/or suicidal youth who present for routine clinical care.

Augmenting this cross-university Joint Pilot Program are the University of Pittsburgh's *Center for Behavioral Health, Media, and Technology* (CBHMT) who will provide additional expertise in clinically-oriented behavioral health solutions, and the *Center for Interventions to Enhance Community Health* (CiTECH) who will provide expertise in the community implementation of such solutions.

Eligibility

The *HCII* principal investigator (PI) must be a tenure- or research-track CMU faculty member.

The *ETUDES* PI must be a core faculty member at the University of Pittsburgh.
   (See **Appendix** for a list of the *ETUDES* investigators' interests)

Criteria

Proposals should:
   1) Pair an HCII faculty member with an ETUDES faculty member (co-PIs);

2) Include at least one faculty member from the University of Pittsburgh's *Center for Behavioral Health, Media, and Technology* ([CBHMT](#)) and/or *Center for Interventions to Enhance Community Health* ([CiTECH](#));

3) Study, design, develop or adapt an existing technologic solution that addresses one or more clinical issues for improving the care of depressed and/or suicidal youth;

4) Pilot their novel solution on youth who present for clinical care at an outpatient Pittsburgh-area UPMC facility; and

5) Generate pilot data and experiences that can inform the development of new grant applications, papers, and presentations within 12 months of funding.

Funding Details

We plan to award **$100K** to support two to four projects that can be completed within a 12 month timeframe ($50K from ETUDES and $25K each from CBHMT and CiTECH). Funds can be used for graduate and other student salaries, supplies, equipment, conference travel, and other project-related expenses, but no faculty salary support.

Although not a requirement, priority will be given to applications that leverage Joint Pilot Program funds with additional funds the PIs may have access to (e.g., faculty start-up funds, career development awards, foundations, or faculty effort).

Application Process

The application should include:

- Descriptive title of proposed research
- PI's name, address, email, and telephone number
- NIH biosketch for each key investigator
- Specific aims and hypotheses (1 page)
- Project proposal (3 pages excluding references) to include:
  - Significance
  - Innovation
  - Preliminary data, if available
  - Methods
  - Analytic plan
  - Plan for future independent funding
  - Project timeline
- References

- Budget request (1 page)
- List of roles for personnel support

Review Process
Proposals will be reviewed by two or more application-specific reviewers, and then by Drs. David Brent, Bruce Rollman, Shaun Eack, and Jodi Forlizzi, the directors of ETUDES, CBHMT, CiTECH, and HCII, respectively, who will consider these reviews and make consensus recommendations for funding.

Dates and Deadlines
Applications will be due August 24, 2020, and we anticipate making awards by September 14, 2020.

Questions
Please contact Ms. George-Milford, ETUDES Research Program Administrator, at georgeba2@upmc.edu, or visit www.etudes.pitt.edu.

Appendix

ETUDES Center Core Investigators and Interests			
Investigators	**Interests**	**Resources**	**Projects**
David Brent, MD	Adolescent/young adult depression and suicide	STAR clinic—sees 80 depressed, suicidal young adolescents and young adults daily	Brite—safety planning app
		Access to health recorders (through EASY and Beckwith.	MAPS—passive sensing and suicidality
			Predictive analytics for suicide
Ana Radovic, MD	Technology interventions that improve adolescent mental health services	Patients at Center for Adolescent and Young Adult Health Clinic and at Carlow Health Services	MoodRing (passive sensing); Screening Wizard-decision support tool for recommendations based on positive mental health screen
Tina Goldstein, PhD	Adolescent and young adult mood disorders and suicide	STAR (see above) and CABS (Child and Adolescent Bipolar Spectrum Services) clinic- sees ~300 youth with and at-risk for bipolar disorder annually.	TSC sleep pilot & SPOT-monitor sleep hygiene through actigraphy; WAVE-treatment for youth with bipolar disorder; T2C-texting intervention using motivational interviewing techniques to increase self-efficacy in managing care
Neal Ryan, MD	Anxiety and mood disorders in youth.	Access to health recorders (through EASY and Beckwith.	E-HR data mining; predictive analytics
	ML and modeling in big psychiatric data		
David Kolko, PhD	Child aggression or abuse, family conflict; personalized treatment goal monitoring	SAFE/SAFTEY clinics – youth with sexual +/or firesetting behavior	Team implementation in child advocacy centers; outcome follow-up for 2 clinics

Bruce Rollman, MD	Treatment of depression and anxiety in non-psychiatric settings (emphasis primary care and cardiovascular settings); mHealth; behavioral health; all phases of the conduct of effectiveness trials	UPMC adult primary care practices; Center for Behavioral Health, Media, and Technology (director); local, national, and international network of collaborators (e.g., co-chair, 11th International Society for Research on Internet Interventions conference (Pittsburgh; Sept. 2021)	NIH-funded: Online Treatment Trial for Mood and Anxiety Disorders in Primary Care and Hopeful Heart Trial to treat depression and co-morbid heart failure.
César Escobar-Viera, MD	Digital health, social media, mental health disparities, sexual and gender minorities (SGM).		-Social media use and depression among SGM youth and young adults -Social media-delivered intervention for reducing social isolation among rural SGM youth
Candice Biernesser, PhD	Digital mental health interventions, cyberbullying, adolescent suicide		cyberbullying prevention project; social media assessment of suicidal risk in teens
Oliver Lindhiem, PhD	Digital therapeutics, parenting; child behavior disorders; ADHD; Measurement	Nationally representative dataset (N = 1,570) of parent and child psychopathology and parenting variables	Screening Wizard; LemurDx (Passive sensing-ADHD); UseIt! apps (behavioral parent training apps)
Stephanie Stepp, PhD	Children, youth, and families with borderline personality disorder (BPD) and suicide	Archival registry and data of adolescents, adults, and mothers with BPD;	BRITEPath-safety planning app and electronic treatment manual for onboarding plan to patient phones
		Pittsburgh Girls Study – 20-year longitudinal study of 2,450 girls/women assessed annually	STEADY – DBT to test effects of maternal BPD and emotion regulation on preschooler development

Potential ETUDES-HCII Projects

1. Using predictive analytics to identify youth with depression and suicidality, identify subgroup who should be monitored more closely with MoodRing.
   ETUDES Investigator: Neal Ryan, David Brent, Ana Radovic

2. Identify correlates of passively collected cellphone data with sleep, mood, and suicidality parameters and then pair with Brite or another interventions.
   ETUDES investigators: David Brent, Ana Radovic, Stephanie Stepp

3. Predictive analytics for suicide in primary care/Eds/psych ed.
   ETUDES Investigator: Neal Ryan, David Brent, Cesar Escobar-Viera

4. Neural feedback to identify suicidality based on PRISM research study data with Marcel Just (CMU): https://www.cmu.edu/dietrich/news/news-stories/2018/august/marcel-just-nimh-suicide-grant.html
   ETUDES investigator: David Brent

5. Facial expression and mood/suicidality linked to telemedicine.
   ETUDES investigator: David Brent, Stephanie Stepp, Tina Goldstein

6. Online clinical trials and social media interventions; conversational agents to be deployed on social media platforms.
   ETUDES Investigators: Candice Biernesser, Cesar Escobar-Viera, David Kolko

7. Development of a complementary intervention to Brite for parents.
   ETUDES Investigators: David Brent, Candice Biernesser, Jamie Zelazny, Stephanie Stepp, David Kolko

8. Adapt Text2Connect for adolescents making the transition to adult services—mental health care, chronic physical illness, reminder for taking meds and making appts.
   ETUDES investigators: Tina Goldstein, Brian Suffoletto (Stanford), Dawn Gotkiewicz

9. Sleep interventions for clinicians dealing with suicidal patients.
   ETUDES investigators: Tina Goldstein, Peter Franzen, David Brent

10. Screening Wizard and BRITEPath combo in the pediatric emergency department (ED).
    ETUDES investigators: Oliver Lindhiem, Ana Radovic, Stephanie Stepp, David Brent, Betsy Kennard (UTSW-Dallas), Cheryl King

11. Develop a game to enhance caregivers' ability to parent and learn self-control strategies to reduce family conflict.
    ETUDES Investigators: Oliver Lindhiem, Dmitriy Babichenko, David Kolko