

## *Special Thanks To:*

The Klingenstein Third Generation Foundation

American Academy of Child & Adolescent  
Psychiatry

Harvard Medical School

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The Klingenstein Third Generation Foundation

Cultivating the next generation  
of child and adolescent mental health professionals



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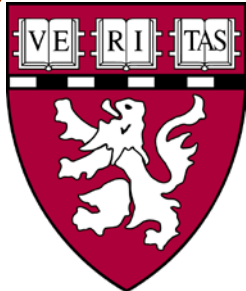


# Klingenstein Games 2013



*Harvard Medical School  
February 2<sup>nd</sup>, 2013*

Welcome



## WELCOME TO THE 2013 KLINGENSTEIN GAMES

### 2013 KTGF Sites:

Brown Alpert Medical School  
David Geffen School of Medicine at UCLA  
Harvard Medical School  
Mayo Medical School  
Mount Sinai School of Medicine  
Stanford University School of Medicine  
University of California Davis School of Medicine  
University of Illinois College of Medicine  
University of Maryland School of Medicine  
University of North Carolina at Chapel Hill School of Medicine  
University of Vermont College of Medicine  
Yale University School of Medicine

### Friday Evening

7:00 PM - Informal Reception, with food, beverages and games

Joseph B. Martin Student Lounge  
Vanderbilt Hall  
107 Louis Pasteur  
Boston, MA 02115

### Saturday Morning

All activities located in:  
Tosteson Medical Education Center (TMEC)  
260 Longwood Ave.  
Boston, MA 02115

*Individual Rooms listed separately*

8:30 A.M. Breakfast (TMEC Atrium)  
9:00 A.M. Welcome and introductions (TMEC Atrium)  
9:15 A.M. Team building activities (TMEC Atrium)  
10:15 A.M. Team building debriefing (TMEC 227)

### Saturday Morning

10:30 A.M. Medical student oral presentations (TMEC 227)

1. Current perspectives on juvenile bipolar disorder  
Brooke Rosen and Keith Miller – Mayo Medical School
2. The neural circuitry of suicidality in adolescents with bipolar disorder  
Amanda Wallace – Yale School of Medicine
3. Recognizing depression and other consequences of rootlessness in third culture kids  
Quincy Nang and Jessica Saw – Mayo Medical School

11:15 A.M. Break

11:30 A.M. Keynote Speaker (TMEC 227)

#### Paula K. Rauch MD

Associate Professor of Psychiatry  
Harvard Medical School

Director – Marjorie E. Korff PACT Program  
(Parenting At a Challenging Time)  
Program Director, Family Support and Outreach  
Red Sox Foundation/MGH Home Base Program  
Massachusetts General Hospital



### Afternoon

12:00 P.M. Career panel and lunch (TMEC Atrium)  
12:45 P.M. Medical student poster session (TMEC Atrium)  
1:30 P.M. Medical student oral presentations (TMEC 227)

4. Determining the effectiveness of the Autism Mental Status Examination (AMSE) online training curriculum  
Erin Li – Mount Sinai School of Medicine
5. Encountering patients with eating disorders through snack passes  
Annie Kelly and Megan Wilson – UNC Chapel Hill School of Medicine

2:00 P.M. GAMES (TMEC Atrium)  
3:30 P.M. Innovation challenge (TMEC Atrium)  
4:15 P.M. Innovative challenge debriefing (TMEC 227)  
4:30 P.M. Awards ceremony (TMEC 227)  
4:45 P.M. Speed networking followed by wine, dessert and cheese celebration (TMEC Atrium)

*Optional social outing after the games.*

## *Presentation 1*

### **Current Perspectives on Juvenile Bipolar Disorder**

**Brooke Rosen, Keith Miller**  
*Mayo Medical School*

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Currently, pediatric bipolar disorder is characterized by two primary presentations – severe non-episodic irritability and episodic mania. The increasing application of bipolar diagnoses to youth has created great controversy over the diagnostic criteria and true prevalence of the disorder. While the symptom criteria for bipolar disorder in the DSM IV are identical for adults and children, the manifestation of symptoms can be obscured by normal childhood behavior as well as development. In addition, variable features of pediatric manic or hypomanic episodes have raised questions about clinical and physiological differences between the various phenotypes of pediatric bipolar disorder. Therefore, this presentation seeks to clarify the diagnosis of pediatric bipolar disorder such that treatment is not withheld from those that truly have the disorder, while preventing unnecessary diagnosis and exposure to psychotropic drugs.

The presentation will further delineate the phenotype of severe non-episodic irritability as investigated in Dr. Ellen Leibenluft's Bipolar Spectrum Disorders research group at the National Institute of Mental Health, in which Brooke conducted research for two years prior to medical school. The session will discuss key data from longitudinal clinical, behavioral, neuroimaging, and family studies that distinguish children with severe non-episodic irritability from those with the classic episodic presentation of bipolar disorder.

## *Presentation 2*

### **The Neural Circuitry of Suicidality in Adolescents with Bipolar Disorder**

**Amanda Wallace**  
*Yale School of Medicine*

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For adolescents and young adults, suicide is the 3rd leading cause of death, taking the lives of more than 4000 adolescents and young adults in the U.S. each year. Amongst those individuals who commit suicide, ninety percent have a mental disorder. Bipolar Disorder (BD) in particular, has one of the highest rates of completed suicide, estimated at 20%, highlighting the importance of understanding the development of suicidality in BD. The identification of biomarkers of suicidality in adolescents and young adults with BD would not only help in the development of new methods for early detection, but would provide insight into the mechanisms that underlie the development of suicidality in this age group as well as their future risk in adulthood, and aid in the design of new interventions that specifically target these mechanisms.

In this study we used diffusion tensor imaging (DTI) to examine structural differences in the white matter (WM) that provides connections in the brain circuits that regulate emotions and impulses between BD adolescents with a history of suicide attempts (BD-ATT) and BD adolescents with no history of attempt (BD-NATT). We observed significant decreases in a DTI measure of the structural integrity of WM, fractional anisotropy (FA), in the BD-ATT group compared to BD-NATT group bilaterally in the region of the uncinate fasciculus (the WM structure that provides the highest proportion of connections within key nodes of the neural circuitry that subserves emotional regulation, i.e. between the amygdala and ventral frontal (VF) regions). A decrease in FA was also observed in a more rostral and lateral right VF WM area. In exploring associations between clinical factors that might contribute to the regional FA decreases and risk for suicide attempts, we noted an inverse association between the magnitude of reported emotional abuse (as reported on the Childhood Trauma Questionnaire) and FA in the right VF region. The findings suggest that abnormalities in the development of the connections within corticolimbic brain circuitry may be associated with the development of risk for suicide attempts in adolescents and young adults with BD, and that history of emotional abuse may be a factor that contributes to this risk.

### *Presentation 3*

#### **An Exercise in Screening for Mental Health: Recognizing Depression and Other Consequences of Rootlessness in Third Culture Kids (TCKs)**

**Quincy Nang, Jessica Saw  
Mayo Medical School**

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Globalization and increased emigration flows means a larger number of children following their parents find themselves transplanted into unfamiliar environments (Dewaele and van Oudenhoven, 2009). Understanding cross-cultural upbringing and its impact on childhood development has thus been increasingly crucial to mental health professionals internationally. An important subset of these children has been primarily studied. Identified as Third Culture Kids (TCKs), Pollock and Van Reken (2001) define them as:

A person who has spent a significant part of his or her developmental years outside the parents' culture. The TCK builds relationships to all of the cultures, while not having full ownership in any.

As TCKs have become more prominent in recent years, physicians should expect to see more of them in their practice and should gain awareness of the emotional and psychological impact of this experience on their personalities.

While TCKs tend to be significantly more open-minded, culturally competent, and easily adaptable to new environments, their feeling of rootlessness is often linked to lower self-esteem with higher rates of depression and anxiety (Diler, Avci, & Seydaoglu, 2003).

The goal of this presentation is to introduce this subset of children within the light of their psychosocial singularities. We will then present a brief video interview of one such TCK. The audience will be given the opportunity to practice recognizing relevant TCKs' mental health characteristics.

### *Presentation 4*

#### **Determining the effectiveness of the Autism Mental Status Examination (AMSE) online training curriculum in improving medical students' inter-rater reliability in their administration of the AMSE** **Erin Li Mount Sinai School of Medicine**

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Background:

- Autism spectrum disorders (ASD) are very prevalent, and are characterized by a variety of social, communicative, and cognitive deficits.
- Early detection and treatment of ASD is correlated with better outcomes in patients.
- The standard examinations for diagnosis of ASD require extensive training and time to administer, which presents a challenge for widespread detection of ASD.
- The recently developed AMSE appears to reliably detect ASD, and can be easily administered by clinicians with little training in the context of a general clinical examination.

Specific Aims:

- To characterize medical students' ability to administer the AMSE before and after completing an online training.
- To determine the inter-rater reliability of those medical students in their administration of the AMSE.

Methods:

- The online curriculum requires subjects to complete a training consisting of a manual explaining the AMSE, 2 pre-tests, a training module, and 2 post-tests.

## *Presentation 5*

### **Encountering Patients with Eating Disorders through Snack Passes**

**Annie Kelly, Megan Wilson  
UNC School of Medicine**

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The goals of this program include:

- To provide 1<sup>st</sup> and 2<sup>nd</sup> year medical students an opportunity to learn about diagnosis and treatment of eating disorders through multiple clinical encounters across a continuum of care.
- To provide general psychiatry residents the opportunity to present didactic material about eating disorders and therapeutic meal support as well as mentor students interested in psychiatry.
- To provide patients suffering from severe eating disorders opportunities to take on the expert role, to put into practice tools they are developing in treatment, and to gain confidence in their ability to engage in healthy interactions that involve eating.

Program details:

Medical students attend a two-hour interactive training session presented by a general psychiatry resident that covers basic information about diagnosis, medical and psychiatric treatment of eating disorders; the eating disorders program at UNC; providing therapeutic meal support; and the logistics of the Snack Pass program. At the conclusion of the training students commit to scheduling four snack passes that are thirty minutes each. Students are paired with a patient on the eating disorders unit or in the partial hospitalization program. Priority is given to patients who are approaching a transition in care so that the student will be able to follow them across the care continuum. The initial snack pass occurs in a highly structured environment, such as on the unit or in the partial program dining area. Subsequent passes occur throughout the UNC hospital dining areas.

Outcomes:

Our program is in the pilot phase with 5 students paired with adult and adolescent patients. At the conclusion of the pilot program students and patients will complete a Qualtrics survey to assess if goals were achieved, perspectives were impacted, and to illicit suggestions for improvement going forward. We anticipate targeting an increase to 10 participant pairs.

## *Poster 1*

### **Open Label Clinical Trial of Vitamin D<sub>3</sub> Dosage Tolerability, and Effect on Behavioral Measures in Children with Autism**

**Faith Rohlke  
University of Illinois College of  
Medicine**

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Objectives: Vitamin D is vital for neurodevelopment, and deficiency has been linked to psychiatric dysfunction. Recent evidence suggests that vitamin D deficiency may be correlated with autism, but interventional high dose vitamin D<sub>3</sub> (D<sub>3</sub>) replacement in the ASD population has not been investigated. This study aims to report on the tolerability of high dose D<sub>3</sub> supplementation in ASD children, and secondarily, its efficacy in improving the core features of autism in a small sample.

Methods: 20 ASD patients with serum 25(OH)D concentrations below 30 ng/ml, ages 3-8, are treated with high dose D<sub>3</sub> for 12 weeks in an open-label trial. Subjects receive 10,000 IU D<sub>3</sub> for 10 days. At weeks 2, 4 and 8, dosage is titrated based on weight and 25(OH)D levels to achieve a concentration at the high end of the reference range (30–100 ng/ml). Statistical analysis will compare pre vs post assessments for improvements in the core features of autism, and correlate results with changes in 25(OH)D concentration. Ability of the protocol's dosages to reach goal 25(OH)D will be evaluated.

Results: We predict that D<sub>3</sub> supplementation will be well tolerated and improvements in baseline to final outcome measures will be apparent in subjects reaching serum 25(OH)D concentrations near 90 ng/ml.

Conclusion: All subjects may not reach 25(OH)D levels near 90 ng/ml. However, since the aim of this pilot study is to evaluate monitored high dose D<sub>3</sub> supplementation in pediatric ASD patients, all well tolerated 25(OH)D levels below the level of toxicity (150 ng/ml) support the hypothesis. Results demonstrating safety of interventional high dose D<sub>3</sub> will justify a large sample RCT.

## *Poster 2*

### **The Other String Theory: A Medical Student, Her Ukulele and the Patient Encounter**

**Linda Drozdowicz  
Mayo Medical School**

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When I purchased a “decorative” ukulele to hang on my wall during a pre-medical-school family vacation to Hawaii, I never imagined that it would shape my entire medical school experience. In an unexpected 2.5 year long (and counting) fit of procrastination, I taught myself to play the flamboyant little instrument and, beyond that, became a well-known presence around Mayo Clinic as a result of frequent musical performances. Many positive ukulele-tinged patient encounters – including a number of child psychiatry mentorship experiences – inspired this presentation.

## Poster 3

### Analysis of the Expressed and Latent Content of Popular Internet Pornography and its Potential Clinical Effects on Adolescent Development

**Lisa Jacobs**  
**Brown Alpert Medical School**

**Objective:** Evaluate the portrayal of sexuality on a free, popular pornographic website to document patterns and representations of sexuality. Assess potential clinical implications of adolescent pornography exposure.

**Methods:** We performed a content analysis of expressed and latent themes of the top 30 most viewed video clips of all time (as of May 15, 2012) on a free website, youporn.com. Clips were both professional and amateur. Youporn.com was chosen for its popularity, and because it is free to visit and easily accessible to minors. The top 30 most popular clips since the website was launched in 2006 were chosen because of their exceptionally large viewership – each clip had 20 to 55 million views, with 842 million combined hits – and because they were thought to best represent the tastes of viewers.

Each clip was analyzed by the primary author for the presence of: condom use, force or violence, male in power position, female in power position, wanted sexual advance, verbal objection or physical resistance to sexual advance, expression of pain or distress, fellatio, and cunnilingus. The concluding act of each scene was detailed. The following time intervals were calculated: total time, time to verbal expression of female sexual pleasure, duration of fellatio and cunnilingus.

Realism was assessed subjectively based on the filmmakers' addition of elements of plot, dialogue, and scenery to make the encounter seem believable. Scenes that exclusively showed sexual acts without preceding interaction were not

**Results:**

Of the 30 video clips, 25 featured welcomed sexual advances. Sex between one man and one woman was featured in 25 of 30 clips. Condom use was present in only 1 clip. Force or violence was in 8 of 30 clips, but only two women expressed pain. Only one woman physically resisted, and one verbally objected. All eventually consented to sex. Filmmakers added elements of plot and dialogue to 17 of the 30 clips to make them seem real.

Fellatio was present in 25 clips, occupying 13% of total screen time. Cunnilingus was in 10 clips, occupying 5% of screen time. In 29 of 30 clips, women expressed sexual pleasure within the first two minutes of the video. The conclusion to 17 of 30 clips was the man stopping intercourse to ejaculate on the woman's face.

## Poster 4

### Development of motor inhibition impairment in bipolar disorder

**Judah Weathers**  
**Yale University School of Medicine**

**Objective:**

Despite increased interest in the developmental trajectory of the pathophysiology mediating bipolar disorder, few studies have compared adults and youths with bipolar disorder. Deficits in motor inhibition are thought to play an important role in the pathophysiology of the illness across the age spectrum. The authors compared the neural circuitry mediating this process in bipolar youths relative to bipolar adults and in healthy volunteers.

**Method:**

Participants were pediatric (N=16) and adult (N=23) patients with bipolar disorder and healthy child (N=21) and adult (N=29) volunteers. Functional MRI (fMRI) data were acquired while participants performed the stop-signal task.

**Results:**

During failed inhibition, an age group-by-diagnosis interaction manifested in the anterior cingulate cortex, with bipolar youths exhibiting hypoactivation relative to both healthy youths and bipolar adults, and bipolar adults exhibiting hyperactivation relative to healthy adults. During successful inhibition, a main effect of diagnosis emerged in the right nucleus accumbens and the left ventral prefrontal cortex, with bipolar patients in both age groups showing less activation than healthy subjects.

## *Poster 5*

### **Evaluating the Prevalence of Psychiatric Illness in Pediatric Oncology**

**Jacquelin Rankine  
Mount Sinai**

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Previous research has revealed elevated rates of comorbid depression, anxiety, and other psychiatric disorders in children receiving treatment for life-threatening illnesses.

This study assessed the prevalence of psychiatric disorders in patients of the pediatric hematology/oncology clinic at Mount Sinai Hospital through the use of semi-structured interviews.

Results of this research showed that a significant and currently unmet need for mental health services exists among pediatric hematology/oncology patients at Mount Sinai. 8 of 18 participants (44.4%) met criteria for a psychiatric disorder. 6 of 18 participants (33%) met criteria for adjustment disorder with depressed mood, 1 (6%) for major depressive disorder, and 1 (6%) for bipolar I disorder. Only 2 of 8 (25%) participants with psychiatric disorders were currently receiving treatment. There was no significant relationship between time since medical diagnosis or age at medical diagnosis with the development of a psychiatric comorbidity. This study has clarified the psychiatric needs of this population at Mount Sinai and may serve as an easily replicable model for psychiatric assessment in pediatric patients with chronic and life-threatening illnesses at other medical centers.

## *Poster 6*

### **Exposure to Drug-Related “People, Places, and Things” Through Online Social Networking Sites Among Adolescents in Substance Abuse Treatment Programs**

**David Tran  
David Geffen School of Medicine at  
UCLA**

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Purpose: The current study collected pilot data to assess the impact of online social network use and exposure to drug-related cues among a convenience sample of youth attending a community substance abuse treatment program.

Methods: 37 adolescents undergoing substance abuse treatment completed a 20-question survey.

Results: 89% (N=33) use online social networking sites with a majority using Facebook. Of those, 88% (N=29) report marijuana as his/her drug of choice. 44% (N=14) of youth reported posting drug-related content on social networking sites while 94% (N=30) reported that their friends post drug-related content. In contrast, only 22% (N=7) of youth reported that their friends post recovery-oriented content on social networking sites. 66% (N=21) reported that a post had caused them to have an urge or craving for drugs.

Conclusion: Our study highlights the negative influence that online social networking sites may have on youth via exposure to drug users and cues. The low rate of exposure to recovery-oriented content suggests a missed opportunity to use the power of social media to support recovery among youth.



## *Poster 7*

### **Framework for Determining Costs of School-Based Crisis Intervention Services**

**Christina Cruz  
Harvard Medical School**

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We are interested in determining the costs of school-based mental health services. Advocates have proposed mental health services delivered in schools as a financially feasible approach to support families and students with mental health needs. However, well-documented data and research on the costs of school-based mental health programs remains limited (Chatterji, et al., 2004). In our work, we propose a methodology for comparing the cost of school-based initial mental health crisis interventions to the cost of the same services delivered in an emergency department.

## *Poster 8*

### **The Games People Play: Understanding Massively Multiplayer Online Role Playing Game Engagement within a Sample of Psychiatric Adolescent Inpatients**

**Kevin A. Coughlin  
Brown Alpert Medical School**

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**OBJECTIVES:** The aims of this study are to identify and explore the clinical factors and motivations underlying engagement with "massively multiplayer online role playing games," (aka MMOs such as World of Warcraft) within a clinically impaired population of adolescent psychiatric inpatients, and to identify how MMO use is associated with measures of psychopathology.

**METHODS:** Participants admitted to an inpatient psychiatric unit for adolescents were asked to complete a series of self-report measures, including the "Motivations for Online Gaming Questionnaire" (MOGQ) which explored motivating factors underlying video game use, and the "Problematic Video Game Use Survey," (PVGUS) which assessed the consequences and reinforcing factors of past-year video game use. Demographic characteristics were recorded, as well as type of game played, average length of daily gaming, and results from psychometric testing.

**RESULTS:** Of 219 consecutive admissions to the adolescent inpatient units at Bradley Hospital, 132 were video gamers. Of those 132 gamers, 82 played at least one game which involved an online component (i.e. connection to other users through the internet to compete or cooperate in gameplay). Of these 82 online-gamers, 25 self-identified as users of MMO games. MMO users within this population played an average of 2.5 hours of video games daily, compared to 1.9 hours for general online gamers ( $p = 0.017$ ). MMO users also scored significantly higher on the "Trauma Symptoms Checklist for Children" parameters for depression, dissociation/fantasy, and anger. MMO gamers were significantly more likely to engage in gaming for reasons of escape, coping, and fantasy when examining MOGQ results. Further analysis of PVGUS, MOGQ, and psychometric data is pending.

**CONCLUSIONS:** A select portion of inpatient psychiatric adolescents engage with MMOs. Early data suggests these games represent a unique and novel media format presenting both risks and benefits to a clinically impaired population. We predict that this unique study population is motivated to engage with MMOs as a means of fantasy, for coping purposes, and to escape from real life stress. The extent to which this engagement can be labeled "problematic" is yet to be determined.