

# Department of Psychology

## 2018-2019 Distinguished Lecturer Series



**DR. ISABELA GRANIC, Radboud University Nijmegen, Netherlands**

**TALK: Bridging Developmental Science and Game Design to Create Biofeedback Games that Build Emotional Resilience**

### **ABSTRACT**

Depression and anxiety are the most frequently diagnosed mental health problems, leading to devastating long-term outcomes that affect a huge proportion of children and adolescents across the globe. Effective prevention programs that show more than a small effect size and that do not stigmatize, condescend to, and bore children, are urgently needed. Our research program focuses on developing evidence-based games that promote emotional resilience through training skills while youth are immersed in games they love to play. We prioritize design and art, integrate developmental science and principles of behavioral change, and systematically test our gaming interventions with large-scale randomized controlled trials. In this talk I will: (a) describe the cross-disciplinary framework we use to develop mobile and virtual reality games that integrate biofeedback and evidence-based game mechanics, (b) present data from a series of randomized controlled trials that evaluate games that use biofeedback at their core (e.g., EEG neurofeedback, heart rate); and (c) introduce a roadmap to the next five years of programmatic studies in biofeedback games, emphasizing how our design and research methodology can help establish a validated toolbox of mechanics relevant to a wide range of intervention and learning domains.

### **BIOGRAPHY**

Isabela Granic did her undergraduate and graduate work in Toronto and got her PhD at the University of Toronto in developmental psychology. She is currently Professor and Chair in the Developmental Psychopathology department at Radboud University Nijmegen, in the Netherlands. She is Director of the Games for Emotional and Mental Health (GEMH) lab, a multi-million euro funded research and development lab for designing and testing applied games for mental health. She is also CEO of The PlayNice Institute, an organization that seeks to build and distribute evidence-based games that promote emotional health and well-being for children and youth. By integrating clinical and developmental research with interactive media design, she is driven to create a suite of evidence-based games that are also commercially viable and can be widely disseminated to prevent and treat anxiety, depression and aggression in youth.

Frustrated by the mediocre results of conventional interventions for anxiety, depression, and aggression, Granic went looking for an innovative alternative. Videogames offer that alternative on an unprecedented scale. She has collected extensive evidence that video games can have significant cognitive, social, motivational and emotional benefits and published the review of these positive effects in the flagship journal of the American Psychological Association, *American Psychologist*. In addition to the dozens of experiments on mechanics and mechanisms, her lab has run 8 randomized controlled trials testing anxiety and depression outcomes, several of which have shown applied games to be as effective, or more, than conventional therapy. She has obtained research grants that total over €5 million from agencies in North America and Europe and has published over 60 articles with results from these funded projects which have appeared in the highest impact journals in neuroscience, developmental science, and clinical psychology.

**Friday, October 19, 2018 - 2:30 P.M.**  
**Kinesiology 101**