## George Bonanno

Columbia University, New York

http://www.tc.columbia.edu/faculty/gab38/
http://www.tc.columbia.edu/LTElab/

George Bonanno, Professor of Clinical Psychology, is an internationally recognized expert on human resilience, coping with grief and trauma, and emotion and emotion regulation. Bonanno teaches in TC's Department of Counseling and Clinical Psychology, in the Program in Clinical Psychology. He directs TC's Loss, Trauma and Emotion Lab. Bonanno is the author of The Other Side of Sadness: What the New Science of Bereavement Tells Us About Life After Loss (2009), and is a frequent commentator on television and in the print media.

Professor, George Bonanno, received his Ph.D. from Yale University. His research over the past 25 years has examined how adults and children respond to and cope with extremely aversive events, such as the death of a loved one, war, infectious disease, sexual abuse, and terrorist attack. In recent years, Professor Bonanno's work has focused more specifically on defining psychological resilience in adults exposed to extreme adversity and on the psychological and contextual factors that might inform resilient outcomes. This work has been funded by generous grants from the National Institutes of Health and the National Science Foundation.

### Title of Presentation: Loss, trauma and resilience: From heterogeneity to flexibility

## Angelique O. J. Cramer

Tilburg University

http://www.aojcramer.com/

Angelique O.J. Cramer is an Associate Professor in Models and Methods for Clinical Psychology at Tilburg University (department of Methodology and Statistics). Currently, she holds a NWO innovational VENI grant, which was awarded to her for her "Network psychometrics" project proposal. From February-June 2017 she works as a fellow at the NIAS institute (Netherlands Institute for Advanced Study in the Humanities and Social Sciences).

Her main interest concerns the development of conceptual and statistical models for the development and maintenance of psychiatric disorders such as major depression and generalized anxiety disorder. She specifically focuses on network models and complex dynamical systems. From a network perspective, disorders develop because of prolonged direct interactions between symptoms. For example, insomnia causes fatigue, which, in turn, causes concentration problems and loss of interest; eventually resulting in a depressive episode. This conceptualization of disorders flies in the face of existing perspectives in which a depressive episode is a disease that – for example analogous to a lung tumor – causes its symptoms such as insomnia and fatigue.

Other interests include measurement invariance, item response theory (IRT), structural equation modeling (SEM), theories of measurement and solutions to the multiple comparisons problem.

### Title of Presentation: Vulnerability and resilience from a complex systems perspective

## Michelle Craske

University of California, Los Angeles

https://www.psych.ucla.edu/faculty/page/mcraske
http://uclacns.org/directory/name/michelle-craske-phd/
http://anxiety.psych.ucla.edu/drcraske.php

Michelle G. Craske, Ph.D., is Professor of Psychology, Psychiatry and Biobehavioral Sciences and the Director of the Anxiety and Depression Research Center, and Associate Director of the Staglin Family Music Center for Behavioral and Brain Health, at the University of California, Los Angeles. She is also a member of the Executive Committee of the UCLA Depression Grand Challenge (Co-Chair, Human Studies section).

She has published extensively in the area of fear, anxiety and depression. In addition to over 400 research articles, she has written academic books on the topics of the etiology and treatment of anxiety disorders, gender differences in anxiety, translation from the basic science of fear learning to the understanding and treating of phobias, and principles and practice of cognitive behavioral therapy, as well as several self-help books and therapist guides. In addition, she has been the frequent recipient of National Institute of Mental Health funding for research projects pertaining to risk factors for anxiety and depression among children and adolescents, cognitive and physiological aspects of anxiety and panic attacks, neural mediators of behavioral treatments for anxiety disorders, fear extinction mechanisms of exposure therapy, implementation of treatments for anxiety and depression in primary care and community clinics, and constructs of positive valence and negative valence underlying anxiety and depression.

She is Editor-in-Chief for Behaviour Research and Therapy and Associate Editor for Psychological Bulletin, a scientific board member for the Anxiety and Depression Association of America, a member of the DSM-5 Steering committee, and Past President of the Association for Behavioral and Cognitive Therapy. Dr. Craske received her BA Hons from the University of Tasmania and her Ph.D. from the University of British Columbia.

### Title of Presentation: Clinical approaches to understanding extinction and inhibition of fear

## Sevil Duvarci

Goethe University, Frankfurt

http://www.izn-frankfurt.de/web-content/memb_get.php?anzname=Duvarci%20S.

Sevil Duvarci is interested in understanding the dopaminergic control of brain circuits underlying cognitive functions and how dopaminergic dysregulation results in cognitive impairments in psychiatric diseases such as schizophrenia. To this end, she uses mouse models of schizophrenia and performs multi-site awake behaving recordings in mice performing cognitive tasks.

### Title of Presentation: Dopaminergic mechanisms of fear extinction

## Anna Gerlicher

Deutsches Resilienz-Zentrum Mainz

http://www.ftn.nic.uni-mainz.de/en/anna-gerlicher

Anna Gerlicher is a PhD student at the Neuroimaging Center and the Deutsches Resilienz-Zentrum (DRZ) in Mainz. She has a background in Psychology and is interested in the extinction of fear and anxiety. More particularly, she is examining which general neurobiological aspects and which individual differences contribute to differences in memory consolidation, which in turn later determine whether a person is able to express a once acquired extinction memory or will suffer from a relapse of fear.

### Title of Presentation: Dopaminergic mechanisms of fear extinction

## René Hen

Columbia University, New York

http://kavli.columbia.edu/member/hen
http://neuroscience.columbia.edu/profile/renehen

René Hen's research is focused on the contribution of serotonin (5-HT) receptors to pathological states such as depression and anxiety. Pharmacological studies and molecular cloning have identified several subtypes of receptors with distinct properties, signaling systems, and tissue distributions. However, the study of the function of individual serotonin receptor subtypes has been hampered by the lack of specific drugs. In addition, a number of the serotonergic drugs that are active in the treatment of neuropsychiatric disorders influence the whole serotonergic system. For example, antidepressants such as fluoxetine are 5-HT uptake blockers and potentiate the action of 5-HT at multiple post-synaptic sites. To dissect the contributions of individual serotonin receptors to physiology and behavior, mouse mutants lacking individual receptor subtypes were created in his laboratory, providing genetic models for a number of human behavioral traits such as impulsiveness, depression, and anxiety. Tissue specific and conditional knockouts are currently being used to identify the neural circuits underlying these traits. Recently his lab has also been investigating the function of the ventral hippocampus and the contribution of hippocampal neurogenesis to mood and cognition. Specifically, they have shown that antidepressants stimulate the division of neuronal progenitor cells in the dentate gyrus, which in turn results in an increase in the number of immature neurons in the adult hippocampus. Furthermore, using various ablation strategies they have shown that hippocampal neurogenesis is required for some of the behavioral effects of antidepressants. Novel antidepressant therapies aimed at targeting directly hippocampal stem cells are currently under investigation.

### Title of Presentation: The ventral hippocampus: a key player in resilience and mood

## Birgit Kleim

Department of Psychiatry, University of Zurich

http://www.med.uzh.ch/de/UeberdieFakultaet/fakultaetsmitglieder/kleimbirgit.html

Birgit Kleim holds a Master degree in Psychology of the University of Freiburg. In 2006 she did her PhD in Clinical Psychology at King's College London. From 2006-2009 she was a Research Fellow in Anxiety Disorders at the Institute of Psychiatry and at Maudsley Hospital, King's College London. From 2009-2010 she was Lecturer at the Department of Psychology and Psychotherapy at the University of Basel. In 2010 she was a senior researcher and research group leader (SNF) at the Deptartment of Psychology and Psychotherapy at the University of Zurich. At the moment she works at the Clinic for Psychiatry, Psychotherapy and Psychosomatic Medicine of the University of Zurich.

### Title of presentation: Is resilience predictable?

Aniko Korosi

University of Amsterdam

http://akorosi.wixsite.com/korosigroup

Dr. Aniko Korosi is an Assistant Professor at the Center for Neuroscience at the Swammerdam Institute for Life Sciences, University of Amsterdam. She obtained a PhD in neurobiology at the University of Utrecht, The Netherlands then trained as a postdoctoral fellow at University of California Irvine before establishing her lab at UvA in 2010. The main goal of my research group is to better understand the biological mechanisms and environmental factors involved in brain programming by stressful early-life experiences and to test the efficacy of peripheral (nutritional) interventions. I aim to identify how the various components of the early-life environment, including stress-hormones, early nutrition and inflammatory modulators act synergistically in programming the brain, possibly via epigenetic mechanisms. Dr Korosi and her group has recently showed that dietary interventions early in life can be a very powerful tool to protect the developing brain against the detrimental effects of early life stress. Her research is funded by several national (NWO FCB, NWO Meervoud) and international (JPI Nutricog) grants.

## Title of presentation: Early-life stress induced cognitive decline: focus on nutrition and neuroimmune functions

Thomas Larrieu

École Polytechnique Fédérale de Lausanne

http://lgc.epfl.ch/thegroup

Thomas Larrieu is a Postdoc at the École Polytechnique Fédérale in Lausanne. He initially obtained a Master degree in Neurosciences in the university of Bordeaux during which he carried out some work on a model of Post Traumatic Stress Disorders (PTSD) in mice. Next, during his PhD at NutriNeuro lab he studied the mechanisms underlying the effects of nutritional omega-3 fatty acids deficiency on emotional behaviours, and specifically, anxiety and depression.

He is now pursuing the next steps of his career with his postdoctoral experience in Carmen Sandi's lab. The project he is interested in aimed at assessing whether the social status attained within a group of inbred C57BL/6J mice cohabiting in the same homecage for several weeks would relate to individual susceptibility to a chronic social defeat protocol, known to induce depression-related behaviors in some individuals ('susceptible') but not others (resilient').

## Title of Presentation: Predictability of susceptibility and resilience to chronic social defeat stress: a behavioural origin?

## Bo Li

Cold Spring Harbor Laboratory, New York

https://www.cshl.edu/Faculty/Bo-Li.html

Bo Li's group studies the neural circuits underlying cognitive function and dysfunction as they relate to anxiety, depression, schizophrenia and autism. They use sophisticated technologies to manipulate specific neural circuits in the rodent brain to determine their role in behavior. They are interested in changes in synaptic strength that may underlie mental disorders.

Understanding the link between neural circuits and behavior has been the focus of research in his lab. He is particularly interested in studying the synaptic and circuit mechanisms underlying reward processing, attention, and learning and memory; as well as synaptic and circuit dysfunctions responsible for maladaptive behaviors that are related to major mental disorders. He integrates *in vitro* and *in vivo* electrophysiology, imaging, molecular, genetic, optogenetic, and chemogenetic techniques to probe and manipulate the function of specific neural circuits – with a focus on the fear and reward circuits – in the rodent brain, and to determine how these circuits participate in adaptive or maladaptive behavioral responses in various tasks.

### Title of Presentation: Amygdala circuits in the regulation of divergent behaviors

## Isabelle Mansuy

University of Zurich and ETH Zurich

http://www.hifo.uzh.ch/en/research/mansuy.html

Isabelle Mansuy is professor in neuroepigenetics at the Medical Faculty of the University Zürich and the Department of Health Science and Technology (D-HEST) of the Swiss Federal Institute of Technology Zürich (ETHZ). She obtained a PhD in developmental neurobiology at the Université Louis Pasteur Strasbourg, France then trained as a postdoctoral fellow at Columbia University, New York before establishing her lab at ETHZ in Dec 1998. Her research examines the epigenetic basis of complex brain functions and the heritability of acquired traits across generations in mammals. It focuses on the mechanisms underlying the expression and the inheritance of the effects of environmental conditions such as traumatic stress in early postnatal life, on behavior and physiology, and their link with diseases in humans. The major goals are to gain new knowledge into the ensemble of epigenetic mechanisms including DNA methylation, non-coding RNAs and histone modifications that are persistently altered by early experiences and how they are transmitted across generations. This research is based on mouse models and on translation to humans. Isabelle Mansuy co-authored many research articles, reviews and books in the field of neuroepigenetics. She is member of the Swiss Academy of Medical Science, the European Academy of Science, the Research Council of the Swiss National Science Foundation, and European Molecular Biology Organization. She is recipient of the Medal of Chevalier dans l'Ordre National du Mérite and of the Medal of Chevalier de la Légion d'Honneur in France.

### Title of Presentation: Transgenerational effects of early life trauma: Epigenetic mechanisms involving the germline

Conor Murphy

University of Innsbruck

https://www.uibk.ac.at/pharmazie/pharmakologie/staff.html

Conor Murphy is a Postdoc at the Department of Pharmacology and Toxicology of the University of Innsbruck. He has an educational background in Neuroscience and Regenerative Medicine. During his PhD, he investigated the role of different epigenetic mechanisms, including microRNAs, on the rescue of impaired fear extinction, implicating the regulation of specific microRNA candidates in the amygdala that were critical to the successful extinction of fear. He is currently interested in the potential of non-coding RNAs as therapeutic targets and/or molecular biomarkers for debilitating disorders such as PTSD.

## Title of presentation: The role of microRNAs in fear extinction

Kerry J. Ressler

Harvard University

http://www.resslerlab.com/kerry-ressler.html
http://www.mcleanhospital.org/biography/kerry-ressler
https://www.hms.harvard.edu/dms/neuroscience/fac/Ressler.php

Kerry J. Ressler, MD, PhD, is Chief Scientific Officer and James and Patricia Poitras Chair in Psychiatry at McLean Hospital, after serving at Emory University for 18 years. He is also a professor in psychiatry at Harvard Medical School and current president of the Society for Biological Psychiatry. Dr. Ressler was previously an investigator of the Howard Hughes Medical Institute and is a member of the National Academy of Medicine (formerly the Institute of Medicine) and the National Academy of Medicine

Dr. Ressler's lab focuses on translational research bridging molecular neurobiology in animal models with human genetic research on emotion, particularly fear and anxiety disorders. He has published over 225 manuscripts ranging from basic molecular mechanisms of fear processing to understanding how emotion is encoded in a region of the brain called the amygdala, in both animal models and human patients.

Title of Presentation: Genetic and neural circuit approaches to understanding extinction and inhibition of fear

## Scott Russo

Icahn School of Medicine at Mount Sinai

http://www.mountsinai.org/profiles/scott-j-russo
http://neuroscience.mssm.edu/russo/

Dr. Russo is an Associate Professor of Neuroscience at the Icahn School of Medicine at Mount Sinai. He obtained his Ph.D. in Psychology from the City University of New York in 2003. He then completed his postdoctoral work in Psychiatry and Psychology at the University of Texas Southwestern Medical Center before joining the faculty at the Icahn School of Medicine in 2008.

Dr. Russo and his team have set out to test whether overactive, unresolved inflammation might ultimately lead to the development of mood disorders. To achieve this goal, Dr. Russo partnered with a broad team of Mount Sinai specialists across Psychiatry, Immunology, and Vascular Biology. By adopting a “reverse translational” approach, they first identified elevations of the inflammatory cytokine IL-6 (interleukin-6) in humans with treatment resistant depression. His laboratory went on to show that, by neutralizing IL-6 in the periphery and preventing it from entering the brain, they could produce antidepressant-like effects in a mouse model of depression. As a result of this preclinical work, Janssen Pharmaceuticals has initiated a phase II clinical trial to test the efficacy of IL-6 neutralization in treatment of unipolar depression, with a particular focus on individuals with elevated levels of this cytokine; part of the study is being performed at Mount Sinai.

### Title of Presentation: Immune Mechanisms of Stress Susceptibility and Resilience

## Anne-Laura van Harmelen

Cambridge University

http://www.neuroscience.cam.ac.uk/directory/profile.php?av391
https://www.cam.ac.uk/people/anne-laura-van-harmelen
http://www.annelauravanharmelen.com/

Dr. Anne-Laura van Harmelen is a Royal Society Dorothy Hodgkin fellow and Senior Research Associate at the University of Cambridge, and co-director of the Developmental Psychopathology Group. Van Harmelen completed her PhD at Leiden University in the Netherlands. After finishing her PhD she moved to Cambridge to work with Professor Ian Goodyer at the Department of Psychiatry. During this time, she was awarded a Rubicon Fellowship from the Netherlands Society for Scientific Research. In November 2016 van Harmelen was awarded a Royal Society Dorothy Hodgkin Fellowship.

Van Harmelen's research aims to understand the differential mechanisms that link negative family environments where children may be emotionally abused and/or neglected (child emotional maltreatment; CEM) with later mental health disorders, or resilience from these disorders. Her studies showed that CEM is associated with cognitive and neurobiological alterations that may help explain why individuals with CEM are vulnerable to develop mental health disorders. More recently, she showed that the age at which CEM occurs crucial is for its mental health consequences. This suggests that there may be developmental time-windows were children may be especially sensitive to the impact of CEM. During these sensitive time-periods, children and adolescents may similarly be sensitive to positive influences. Indeed, her recent studies showed that adolescent peer support reduces later depressive symptoms, and increases mental health resilience after CEM.

### Title of Presentation: Mental health resilience after child maltreatment