

Christoph Anacker, PhD

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Personal Statement

I am a tenure track Assistant Professor in the Department of Psychiatry at Columbia University. My lab's main interest is to identify the neurobiological mechanisms by which stress across the life span increases risk for psychiatric and neurological disorders. My particular focus is thereby on how stress that is experienced early in life can cause long-lasting impairments in neural circuits that control cognitive function and emotional behaviors. The ultimate goal of this research is to develop improved treatments or interventions for psychiatric and neurological disorders by targeting early life risk factors. During my graduate and post-graduate work, I first developed a novel human hippocampal stem cell model to study the molecular mechanisms by which stress hormones, cytokines, and antidepressants regulate neural development *in vitro*. I then used several *in vivo* stress paradigms and transgenic mouse models to investigate the role of the hippocampus in stress processing, and I pioneered *in vivo* Ca²⁺ imaging of ventral dentate gyrus (vDG) neurons in freely moving mice. My work on the hippocampus and stress over the last 15 years has resulted in an H-index of 25 and a total of 34 scientific publications, including in *Nature* and *Science*, that together have been cited more than 7,250 times.

Employment

01/2019 –	Assistant Professor of Neurobiology Dept. of Psychiatry, Columbia University Systems Neuroscience & Sackler Institute for Developmental Psychobiology, Research Foundation for Mental Hygiene, New York State Psychiatric Institute	New York, USA
05/2014 – 12/2018	Postdoctoral Researcher Dept. of Psychiatry, Columbia University Systems Neuroscience, Research Foundation for Mental Hygiene <u>Mentor: Prof. René Hen</u>	New York, USA
05/ 2013 – 04/ 2014	Postdoctoral Researcher Dept. of Psychiatry, McGill University Douglas Mental Health Institute <u>Mentor: Prof. Michael J. Meaney</u>	Montreal, Canada
11/ 2011 – 04/ 2013	Postdoctoral Researcher Dept. of Psychological Medicine, King's College London Institute of Psychiatry <u>Mentor: Prof. Carmine M. Pariante</u>	London, UK

Education

10/ 2008 – 12/ 2011	PhD in Neuroscience Dept. of Psychological Medicine, King's College London Institute of Psychiatry <u>Title: Glucocorticoid receptor-dependent effects of antidepressants on human hippocampal neurogenesis</u> <u>Mentor: Prof. Carmine M. Pariante</u>	London, UK
10/ 2007 – 10/ 2008	MSc Neuroscience Research Thesis Dept. of Neurology, Stanford University <u>Mentor: Prof. Katrin Andreasson</u>	Palo Alto, USA
07/ 2006 – 10/ 2008	MSc Degree in Neuroscience International Max-Planck Research School	Goettingen, Germany
07/ 2003 – 10/ 2006	Vordiplom (BSc) degree in Biology Georg-August University	Goettingen, Germany

Grant Support**CURRENT SUPPORT**

NIH R01 MH126105-01A **Anacker (PI)** **01/2022 – 12/2026**
Investigating the Role of Hippocampus - Orbitofrontal Cortex Circuits for Cognitive Flexibility
 The goal of this study is to investigate how neural projections from the ventral hippocampus to the orbitofrontal cortex regulate cognitive flexibility and vulnerability to chronic stress.

Horizon 2020 (European Commission) **Cattaneo (PI)** **11/2022 – 11/2026**
Understanding, predicting, and treating depression in pregnancy to improve mothers and offspring mental health outcomes, "Happy Mums"
 The goal of this multi-site international center grant from the European Commission is to study the biological mechanisms by which stress in pregnancy affects a child's mental health outcomes.
Role: Project PI (for Columbia site)

NIH R00MH108719-04 **Anacker (PI)** **03/2019 - 12/2023**
Identifying Cellular and Molecular Substrates of Treatment-Resistant Depression
 The goal of this K99/R00 Pathway to Independence Award is to investigate the role of adult hippocampal neurogenesis in response and resistance to antidepressant treatment in mice

NIH 2P50 MH090964-07 **Mann (PI)** **07/2018 - 06/2023**
Antecedents of Suicidal Behavior Related Neurobiology
 The goal of this Silvio O. Conte Centers for Basic or Translational Mental Health Research (P50) is to determine the behavioral, neurobiological, molecular and immune markers of suicide risk through both human and animal projects, supported by statistical, molecular, human imaging and training cores.
Role: Co-Investigator

NIH 2P50 MH090964-07S2 **07/2018 - 06/2023**
Diversity Supplement for Mrs. Rushell Dixon
Role: PhD Advisor

Brain & Behavior Foundation (NARSAD) **Anacker (PI)** **01/2021 - 12/2023**
 The goal of this study is to investigate how the ventral dentate gyrus region of the hippocampus in mice is involved in mediating the long-lasting effects of early life stress on fear and anxiety-like behavior in mice, using transgenic mice and in vivo Ca²⁺ imaging.

RISE Award **Anacker (PI)** **03/2021 - 03/2023**
Stressed to the bone: Harnessing bone endocrinology as a tool to break the chain of intergenerational stress transmission on mental health
 The goal of this collaborative RISE award is to investigate the role of bone osteocalcin as an intergenerational transmission pathway of early life stress from mother to offspring. This grant funds the development of a new transgenic mouse line in collaboration with Co-PI, Dr. Gerard Karsenty.

PENDING

NIH R01MH134042-01 **Anacker (PI)**
Dissecting Neural Circuits underlying Early Life Adversity Effects on Fear Generalization
 The goal of this R01 is to study how serotonin projections from the median raphe nucleus regulate fear discrimination at the neuronal level in the ventral dentate gyrus and how this process is impaired by early life adversity.

NIH R01AG084830-01 **Anacker (PI)**
Early Life Adversity as a Risk Factor for Alzheimer-related Neuropathology
 The goal of this R01 is to study how long-lasting elevations in hippocampal hyperactivity contribute to Alzheimer neuropathology and age-related cognitive decline in mouse models and human post-mortem brain tissue.

MENTEE SUPPORT

NIH K99MH129611 **van Dijk (PI)** **03/2022 – 02/2027**
Hippocampal and Genetic Mechanisms Underlying Development of Depression in Children at High Family Risk
 The goal of this K99/R00 Pathway to Independence Award is to leverage a unique translational approach to investigate hippocampal, genetic, and childhood environmental factors that predict depression in children at high risk for mood disorders.
Role: Co-Mentor

Sackler Award **Malave (PI)** **03/2022 – 02/2024**
Investigating early life adversity effects on dopamine modulation of fear generalization in the hippocampus.
 The goal of this postdoctoral fellowship is to investigate the effects of early life adversity on dopaminergic regulation of dentate gyrus function and fear overgeneralization in mice.
Role: Primary Mentor

NYSTEM pre-doctoral training grant**Limoges (PI)****09/2019 – 09/2020**

Visualizing age-related changes in the neural stem cell pool in the living brain: effects on neurogenesis, cell activity, and behavior.
The goal of this pre-doctoral fellowship is to use in vivo imaging of adult-born neurons in the mouse brain during age-related cognitive decline.

Role: Primary Mentor**MENTEE SUPPORT PENDING****NIH K99MH135162-01****Malave (PI)**

Investigating early life adversity effects on dopamine modulation of fear generalization in the hippocampus.

The goal of this K99/R00 Pathway to Independence Award is to investigate the effects of early life adversity on dopaminergic regulation of dentate gyrus function and fear overgeneralization in mice.

Role: Primary Mentor**PAST SUPPORT**

2020 – 2022	Sunovion Pharmaceuticals Research Contract, PI: Anacker
2019 – 2022	Columbia Stem Cell Initiative (CSCI) Seed Fund, PI: Anacker
2019 – 2021	NIH R00MH108719-03S1 <i>Diversity Supplement for Mr. Ryan Shores</i> , PI: Anacker
2018 – 2020	Director's Pilot Award (New York State Psychiatric Institute, NYSPI)
2016 – 2019	NIH K99MH108719
2014 – 2015	Postdoctoral Research Fellowship, German Research Foundation (DFG)
2008 – 2011	PhD studentship, NIHR Biomedical Research Council UK
2007 – 2008	Studentship for overseas studies, German Academic Foundation
2006 – 2008	Studentship, International Max-Planck Research School
2006 – 2008	Studentship, German Academic Foundation (Studienstiftung des deutschen Volkes)

Honors and Awards

2021	Research Initiative in Science and Engineering (RISE) Award
2020	NARSAD Young Investigator Award
2019	Adjunct Assistant Professorship, Yale University Child Study Center
2019	Associate Membership, American College of Neuropsychopharmacology (ACNP)
2018	Inscopix In Vivo Calcium Imaging Technology Award
2018	Winter Conference on Brain Research Travel Fellowship
2018	Gray Matter Fellow, Columbia University Department of Psychiatry
2018	Society of Biological Psychiatry Travel Fellowship Award
2017	Inscopix In Vivo Calcium Imaging Technology Award
2017	Finalist, Ziskind-Somerfeld Research Award, Society of Biological Psychiatry (SOBP)
2015	Travel Award, American College of Neuropsychopharmacology (ACNP)
2014 – 2015	Postdoctoral Research Fellowship, German Research Foundation
2014	Certificate of Excellence in Reviewing, The World Journal of Biological Psychiatry
2012	Robert Kerwin Award (awarded by the British Association of Psychopharmacology, BAP)
2012	Award for best oral presentation, ECNP young scientist workshop
2011	Brain Travel Award
2011	Award for best poster presentation, ECNP young scientist workshop
2008 – 2011	PhD studentship, NIHR Biomedical Research Council UK
2010	Brain Travel Award
2010	Travel Award, British Association of Psychopharmacology (BAP)
2009	President's Poster Prize, British Association of Psychopharmacology (BAP)
2009	Travel Award, British Association of Psychopharmacology (BAP)
2009	Award for best presentation, National Institute of Health Research, UK
2009	Brain Travel Award
2007 – 2008	Studentship for overseas studies, German Academic Foundation
2006 – 2008	Studentship, International Max-Planck Research School
2006 – 2008	Studentship, German Academic Foundation

Professional Memberships & Editorial Boards**Editorial Boards**

2022 -	Nature Communications Biology
2019 -	Frontiers in Psychiatry
2015 -	Scientific Reports

Committees

2020 -	ACNP Diversity and Inclusion Committee, <i>Member</i>
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Scientific Societies

2021 - IBREA Foundation, *Member*
2021 - International Society for Psychoneuroendocrinology (ISPNE), *Member*
2019 - American College of Neuropsychopharmacology (ACNP), *Associate Member*
2017 - Society of Biological Psychiatry (SOBP), *Member*
2014 - 2021 Canadian Association for Neuroscience (CAN), *Member*
2011 - 2013 European College of Neuropsychopharmacology (ECNP), *Member*
2009 - Society for Neuroscience (SfN), *Member*
2009 - 2013 British Association for Psychopharmacology (BAP), *Member*

Mentoring Experience

2022 - Under-represented minority (URM) Near-Peer Mentorship Program (ACNP)
2021 Thesis committee, Josephine McGowan, Columbia University Neurobiology & Behavior program (Denny lab)
2021 - Thesis committee, Nicholas Bulthuis, Columbia University Neurobiology & Behavior program (Denny lab)
2021 Thesis committee, Camila Demaestri, Columbia University Neurobiology & Behavior program (Bath lab)
2020 Thesis committee, Christine Yohn, Rutgers University (Samuels lab)
2015 - PhD student supervision, Columbia University
2015 - Undergraduate student supervision, Columbia University
2014 External PhD upgrade examiner, Institute of Psychiatry, King's College London
2010 – 2013 MSc in Psychiatric Research, Brain-Behavior Interface, Institute of Psychiatry, King's College London
2010 – 2013 MSc Thesis student supervision
MSc Course in Neuroscience, Institute of Psychiatry, King's College London
2011 BSc Thesis student supervision, Institute of Psychiatry, King's College London

Teaching

2023 GU4305 Seminar in Biotechnology, Biological Sciences (L. Yamasaki)
2022 GU4305 Seminar in Biotechnology, Biological Sciences (L. Yamasaki)
2021 NSBV BC3382 Neuroscience Frontiers, Barnard (R. Silver, M. Miozzo)
2021 GU4305 Seminar in Biotechnology, Biological Sciences (L. Yamasaki)
2020 GU4305 Seminar in Biotechnology, Biological Sciences (L. Yamasaki)
2019 G4100 Biology of Neurologic and Psychiatric Disorders, Columbia (R. Hen, S. Small, S. Rayport)
2019 UN1908 – First Year Seminar in Modern Biology, Biological Sciences (A. Heicklen)
2010 – 2013 MSc Psychiatric Research, Brain-Behavior Interface, Institute of Psychiatry, King's College London (C. Pariante)

Peer Review

Nature Neuroscience, PNAS, Molecular Psychiatry, Biological Psychiatry, Neuropsychopharmacology, Nature Communications, Biology, Hippocampus, Journal of Psychiatric Research, Frontiers in Psychiatry, Journal of Neural Transmission, BMC Neuroscience, Psychological Medicine, Neuropharmacology, Brain Behavior and Immunity, Brain imaging and Behavior, World Journal of Biological Psychiatry, Developmental Neuroscience, Psychiatry Research, Neuroimage, The Journal of Neuroscience, Brain Research, eLife

Invited Lectures & Conference Talks

2023 King's College London, Dept. of Psychological Medicine (London), *Invited Talk*
2023 Fudan University, Institute of Brain Science (Shanghai), virtual, *Invited Talk*
2023 Measuring and Resolving LGBTQ+ Disparities in STEM (Columbia), *Invited Discussant*
2022 Teenagers and Depression: Addressing the Youth Mental Health Crisis, HDRF outreach (Palm Beach) *Invited Panelist*
2022 Harvard, McLean Hospital (Cambridge), *Invited Talk*
2022 International Society for Psychoneuroendocrinology (ISPNE), *Symposium, Speaker*
2022 Allen Institute for Brain Research (Seattle), *Invited Pride Month Speaker*
2022 Society for Biological Psychiatry (New Orleans), *Symposium, Chair*
2022 Winter Conference on Brain Research (Aspen-Snowmass), *Symposium, Chair*
2021 American College of Neuropsychopharmacology (ACNP), Study Group on LGBTQ+ issues in academia, *Panelist*
2021 Society for Neuroscience, annual meeting (virtual), *Symposium, Speaker*
2021 Society for Neuroscience (SfN), *Symposium, Speaker*
2021 University of Milan, *Invited Talk*
2021 University of New Mexico, *Invited Talk*
2021 Abcam Adult Hippocampal Neurogenesis Conference, *Symposium, Speaker*
2021 International Society for Psychoneuroendocrinology (ISPNE), *Symposium, Speaker*
2021 Society for Biological Psychiatry, annual meeting, *Symposium, Chair*
2020 Inscopix Neural Circuits Webinar, *Invited Talk*
2020 Society for Biological Psychiatry, annual meeting (New York), *Symposium - cancelled*
2020 Psychiatry Grand Rounds Hot Topics (Columbia), *Speaker*
2019 Spring Hippocampus Conference (Taormina), *Symposium, Chair*
2019 Canadian Association for Neuroscience, annual meeting (Toronto), *Symposium, Chair*
2019 Society of Biological Psychiatry, annual meeting (Chicago), *Symposium, Speaker*
2019 Cyber Bullying and Mental Health Symposium, HDRF outreach (East Hampton), *Invited Panelist*

2019 Puberty Suppression & Transgender Care (Columbia), *Invited Discussant*
2019 Sackler Science Seminar Series, Weil Cornell Medicine (New York), *Invited Talk*
2019 Split-Second Social Perception, Implicit Bias, & LGBT People in STEM (Columbia), *Invited Discussant*
2019 Winter Conference on Brain Research (Aspen-Snowmass), *Symposium, Speaker*
2018 McGill University, Department of Psychiatry (Montreal), *Invited Talk*
2018 McGill University, Department of Psychology (Montreal), *Invited Talk*
2018 Society for Biological Psychiatry, annual meeting (New York), *Symposium, Chair*
2018 Hope for Depression Research Foundation (HDRF), annual retreat, *Invited Talk*
2018 Yale University, Department of Psychiatry (New Haven), *Invited Talk*
2018 Columbia University, Sackler Institute for Developmental Psychobiology (New York), *Invited Talk*
2018 Columbia University, Division of Substance Use Disorders (New York), *Invited Talk*
2017 American College of Neuropsychopharmacology (Palm Springs), *Data Blitz*
2017 Society for Neuroscience, annual meeting (Washington DC), *Press Conference Speaker*
2017 Society for Biological Psychiatry, annual meeting (San Diego), *Symposium, Speaker*
2017 European College of Neuropsychopharmacology, annual meeting (Paris), *Symposium, Speaker*
2017 Icahn School of Medicine at Mount Sinai (New York), *Invited Talk*
2017 Department of Neuroscience, Rowan University (Glasboro), *Invited Talk*
2017 Hope for Depression Research Foundation (HDRF), annual retreat, *Invited Talk*
2016 Society for Neuroscience, annual meeting (San Diego), *Nanosymposium, Speaker*
2015 Brain Imaging Center, Douglas Mental Health Institute, McGill University (Montreal), *Invited Talk*
2015 Society for Neuroscience, annual meeting (Chicago), *Nanosymposium, Chair*
2014 University of Toronto, SickKids, Mouse Imaging Center, *Invited Talk*
2013 Society for Neuroscience, annual meeting (San Diego), *Nanosymposium, Speaker*
2013 Society of Biological Psychiatry, annual meeting (San Francisco), *Symposium, Speaker*
2012 European College of Neuropsychopharmacology, annual meeting (Vienna), *Symposium, Speaker*
2011 INSERM (Tours), *Invited Talk*
2011 Society for Neuroscience, annual meeting (Washington DC), *Nanosymposium, Speaker*
2011 European College of Neuropsychopharmacology, annual meeting (Istanbul), *Symposium, Speaker*
2011 Physiological Society, Cellular & Integrative Neuroscience Meeting (London), *Plenary Lecture*
2011 European College of Neuropsychopharmacology, young scientists workshop (Nice), *Symposium, Speaker*
2010 Society for Neuroscience, annual meeting (San Diego), *Nanosymposium, Speaker*
2010 European Psychiatric Association (Munich), *Symposium, Speaker*
2009 Society for Neuroscience, annual meeting (Chicago), *Nanosymposium, Speaker*

Podcasts & Media

- July 6th 2022, Stress effects on the brain, Kerning Cultures
<https://kerningcultures.com/12-hour-rowing-shifts/>
- July 23rd 2019, Comment on: Brain Changes after Sonic attack on US Diplomats in Cuba
<https://www.businessinsider.com/sonic-attacks-us-diplomats-may-have-changed-their-brains-2019-7>
- June 27th 2018, Stress Resilience and the Ventral Dentate Gyrus, Nature Podcast.
<https://www.nature.com/nature/articles?type=nature-podcast>
- May 24th 2018, Debating the Persistence of Neurogenesis in Humans, ACNP podcast.
<https://www.nature.com/npp/podcast/archivetranscripts.html>
- November 13th 2017, Neuroscience Press Conference: Stress SfN; coverage e.g. in Scientific American:
<https://blogs.scientificamerican.com/talking-back/sleep-locks-in-bad-memories-mdash-and-more-from-a-giant-brain-fest/>
- May 21st 2013, Serotonin receptors offer clues to new antidepressants Nature News
<https://www.nature.com/news/serotonin-receptors-offer-clues-to-new-antidepressants-1.12659>
- June 7th 2011, New Brain Cells and Sleep Deprivation Financial Times Science Podcast
<https://www.acast.com/ft-science/new-brain-cells-and-sleep-deprivation>
- April 13th 2011, How antidepressants boost growth of new brain cells The New Scientist
<https://www.newscientist.com/article/mg21028083-500-how-antidepressants-boost-growth-of-new-brain-cells/>

Publications

Total Citations: 7300

H-index: 25

*** = corresponding author**

Publications since starting Faculty Position:

1. Van Dijk MT., Talati A., Kayshap P., Desai K., Kelsall N., Gameroff M., Aw N., Abraham E., Cullen B., Cha J., **Anacker C.**, Weissman M., Posner J., Dentate Gyrus Microstructure Predicts Resilience after Exposure to Maternal Stress Across Two Human Cohorts; *Biological Psychiatry in review after revision*
2. Rosenberg AM., Saggat M., Monzel AS., Devine J., Rogu P., Limoges A., Junker A., Sandi C., Mosharov EV., Dumitriu D., **Anacker C.**, Picard M., A network approach to mapping mouse brain-wide mitochondrial respiratory chain capacity in relation to behavior; *Nature Communications in review after revision*
3. Goetz TG., Aghi K., **Anacker C.**, Ehrensaft D., Eshel N., Morrocco J., Roepke TA., Young JW., Perspective on equitable

- translational studies and clinical support for an unbiased inclusion of the LGBTQIA2S+ community; Neuropsychopharmacology; *in press*
4. Malave L., Milenna T. van Dijk, **Anacker C***, Early Life Adversity shapes neural circuits during sensitive postnatal development periods; Translational Psychiatry 2022; Aug 1;12(1):306
 5. Carazo Arias, E., Nguyen, P.T., Kass, M.D., Jee, H.J., Nautiyal, K.M., Magalong, V., Coie, L.A., Andreu, V., Gergues, M.M., Khalil, H., Akil, H., Arcego, D.M., Meany, M.J., **Anacker, C.**, Samuels, B.A., Pintar, J.E., Morozova, I., Kalachikov, S., Hen, R., Contribution of the opioid system to the antidepressant effects of fluoxetine; Biological Psychiatry 2022 Dec 15;92(12):952-963
 6. Arul Rayan N, Kumar V, Aow J., Rastegar N., Gek M., Lim L., O'Toole N., Aliwarga E., Arcego D., Yeo H.T.G, Wong J., Lee M.Y., Schmidt F., Haja S., Tam W.L., Zhang T.Y., Diorio J., **Anacker C.**, Hen R., Parent C., Meaney M.J., Prabhakar S., Integrative multi-omics landscape of fluoxetine action across 27 brain regions reveals global increase in energy metabolism and complex region-specific alterations. Molecular Psychiatry 2022 Nov;27(11):4510-4525
 7. **Anacker C***, Sydnor E., Chen BK, LaGamma CC, McGowan JC, Mastrodonato A, Hunsberger HA, Shores R, Dixon R, McEwen B, Byne W, Meyer-Bahlburg HFL, Bockting W, Ehrhardt AA, Denny CA*, Behavioral and neurobiological effects of GnRH agonist treatment in mice - potential implications for transgender care; Neuropsychopharmacology 2021, Apr;46(5):882-890
 8. Luna V., **Anacker C.**, Burghardt NS., Andreu P., Millette A., Leary P., Fenton AA., Scharfmann HE., Hen R., Adult-born hippocampal neurons bidirectionally modulate entorhinal inputs into the dentate gyrus; Science 2019, 10;364(6440):578-583
 9. Provençal N., Arloth J., Cattaneo A., **Anacker C.**, Cattaneo N., Wiechmann T., Röh S., Ködel M., Klengel T., Czamara D., Lahti J., PREDO team, Räikkönen K., Pariante CM., Binder EB. Glucocorticoid exposure during hippocampal neurogenesis primes future stress response by inducing long-lasting changes in DNA methylation. PNAS, 2019; Sep 22;117(38):23280-23285.

Publications before starting Faculty Position:

10. **Anacker C.***, Luna V., Stevens G., Millette A., Shores R., Chen B., Hen R*, Adult hippocampal neurogenesis confers stress resilience by inhibiting ventral dentate gyrus activity; Nature 2018; Jul;559(7712):98-102
11. **Anacker C.***, New insights into the mechanisms of fast-acting antidepressants: what we learn from scopolamine; (Invited Early Career Investigator Commentary); Biological Psychiatry 2018; Jan;1;83(1):e5-e7
12. Zhang TY., Keown CL., Wen X., Li J., Vousden DA., **Anacker C.**, Battacharyya U., Ryan R., Diorio J., O'Toole N., Lerch JP., Mukamel EA., Meaney MJ., Environmental enrichment increases transcriptional and epigenetic differentiation between mouse dorsal and ventral dentate gyrus neurons; Nature Communications, 2018 Jan 19;9(1):298-309
13. **Anacker C.***, and Hen R, Adult hippocampal neurogenesis and cognitive flexibility - linking memory and mood; Nature Reviews Neuroscience 2017; Jun;18(6):335-346
14. **Anacker C.**, Scholz J., O'Donnell K.J., Allemang-Grand R., Diorio J., Bagot RC., Nestler E., Hen R., Lerch JP., Meaney MJ., Neuroanatomic differences associated with stress susceptibility and resilience. Biological Psychiatry 2016; May 15;79(10):840-9.
15. Samuels BA, **Anacker C**, Hu A, Levinstein MR, Pickenhagen A, Tsetsenis T, Madroñal N, Donaldson ZR, Drew LJ, Dranovsky A, Gross CT, Tanaka KF, Hen R., 5-HT1A receptors on mature dentate gyrus granule cells are critical for the antidepressant response. Nature Neuroscience 2015; Nov;18(11):1606-16.
16. **Anacker C.**, Denny CA., Hen R., Regulation of hippocampal memory traces by neurogenesis, Neurogenesis 2015; Sep 17;2(1):e1025180.
17. **Anacker C.**, O'Donnell K.J., Meaney MJ., Early Life Adversity and the Epigenetic Programming of Hypothalamic-Pituitary-Adrenal Function, Dialogues in Clin Neuroscience 2014, Sep;16(3):321-33
18. **Anacker C.***, Fresh approaches to antidepressant drug discovery, Expert Opin Drug Discovery 2014, Apr;9(4):407-21
19. Taniguchi H, **Anacker C**, Wang Q, Andreasson K., Protection by vascular prostaglandin E2 signaling in hypoxic ischemic encephalopathy. Exp Neurol. 2014; May; 255:30-7
20. **Anacker C.***, Cattaneo A., Musaelyan K., Zunszain PA., Horowitz M., Molteni R., Luoni A., Calabrese F., Tansey K., Gennarelli M., Thuret S., Price J., Uher R., Riva MA., Pariante CM.; Role for the kinase SGK1 in stress, depression, and glucocorticoid effects on hippocampal neurogenesis, PNAS 2013 May 21;110(21):8708-13
21. Rybka J., Kędziora-Kornatowska K., Banaś-Leżańska P., Majsterek I, Carvalho LA., Cattaneo A., **Anacker C.**, Kędziora J.; Interplay between the pro-oxidant and antioxidant system, and proinflammatory cytokine levels, in relation to iron metabolism and the erythron in depression, Free Radical Biology & Medicine 2013 Oct;63:187-94
22. **Anacker C.***, Cattaneo A., Luoni A., Musaelyan K., Zunszain PA., Milanese E., Rybka J., Berry A., Cirulli F., Thuret S., Price J., Riva MA., Gennarelli M., Pariante CM.; Glucocorticoid-related molecular signaling pathways regulating hippocampal neurogenesis, Neuropsychopharmacology 2013; Apr;38(5):872-83.
23. Klengel T., Mehta D., **Anacker C.**, Pruessner J., Pariante CM., Pace TW., Mercer K., Mayberg H., Bradley B., Nemeroff CB., Holsboer F., Heim CM., Ressler K.J., Rein T., Binder EB.; Allele-specific DNA de-methylation in FKBP5: a molecular mediator of gene x environment interactions in mood and anxiety disorders. Nature Neuroscience 2013; Jan;16(1):33-41
24. Mondelli V., **Anacker C.**, Cattaneo A., Vernon A., Mudo M., Dazzan P., Kapur S., Pariante CM.; Haloperidol and Olanzapine mediate metabolic abnormalities through different molecular pathways; Translational Psychiatry 2013; Jan15
25. Guidotti G., Calabrese F., **Anacker C.**, Racagni G., Pariante CM., Riva MA., Glucocorticoid receptor and FKBP5 expression is altered following exposure to chronic stress: modulation by antidepressant treatment; Neuropsychopharmacology 2013; Mar;38(4):616-27
26. **Anacker C.***, Molecular Pathways to Depression, The Biochemist 2013; 35(3),10-14
27. Cattaneo A., Gennarelli M., Uher R., Breen G., Farmer A., Aitchison K., Craig I., Danese A., **Anacker C.**, Zunszain PA., Elliston L., McGuffin P., Pariante CM.; Candidate gene expression profiles associated with antidepressant response in the GENDEP study: differentiating between baseline "predictors" and longitudinal targets"; Neuropsychopharmacology 2013, Jan;38(2):376.

28. Zunszain PA., **Anacker C.**, Cattaneo A., Choudhury S., Musaelyan K., Myint AM., Thuret S., Price J., Pariante CM.; Interleukin-1 β : a new regulator of the kynurenine pathway affecting human hippocampal neurogenesis Neuropsychopharmacology 2012; Mar;37(4):939-49
29. **Anacker C.*** and Pariante CM.; New models to investigate complex glucocorticoid receptor functions, Front. Behav. Neuroscience 2012; 6:90
30. **Anacker C.** and Pariante CM.; Can adult neurogenesis buffer stress responses and depressive behaviour? Molecular Psychiatry 2012; Jan;17(1):9-10
31. **Anacker C.**, Zunszain PA., Cattaneo A., Carvalho LA., Garabedian MJ., Thuret S., Price J., Pariante CM.; Antidepressants increase human hippocampal neurogenesis by activating the glucocorticoid receptor Molecular Psychiatry 2011; Jul;16(7):738-50.
32. Liang X., Lin L., Woodling N., Wang Q., **Anacker C.**, Pan T., Merchant M., Andreasson KA.; Neuronal and vascular protection by the prostaglandin E2 EP4 receptor in a mouse model of cerebral ischemia, Journal of Clinical Investigation 2011; Nov;121(11):4362-71
33. **Anacker C.***, Zunszain PA., Carvalho LA., Pariante CM.; The glucocorticoid receptor: pivot of depression and of antidepressant treatment? Psychoneuroendocrinology 2011; 36(3): 415-425.
34. Zunszain PA., **Anacker C.**, Carvalho LA., Cattaneo A., Pariante CM., Glucocorticoids, cytokines and brain abnormalities in depression Prog Neuropsychopharm Biol Psychiatry 2011;35(3):722-9.
35. Taniguchi H., **Anacker C.**, Suarez-Mier GB., Wang Q., Andreasson KA.; Function of prostaglandin E2 EP receptors in the acute outcome of rodent hypoxic ischemic encephalopathy Neuroscience Letters 2011; Oct 31;504(3):185-90
36. Abumaria N., Ribic A., **Anacker C.**, Fuchs E., Fluegge G.; Stress upregulates TPH1 but not TPH2 mRNA in the rat dorsal raphe nucleus: identification of two TPH2 mRNA splice variants, Cell Mol Neurobiol 2008; 28(3):331-42

Book Chapters

1. Nikkheslat N., Zunszain PA., Carvalho LA., **Anacker C.**, Pariante C.M.; Antidepressant Actions on Glucocorticoid Receptors. In: Fink G. (ed.) Stress: Neuroendocrinology and Neurobiology. Academic Press; 2017:279–286.
2. **Anacker C.***, Adult hippocampal neurogenesis in depression: behavioural implications and regulation by the stress system, Curr Top in Behav Neurosci 2014, 18:25-43
3. Horowitz M., Zunszain PA., **Anacker C.**, Musaelyan K., Pariante CM.; Glucocorticoids and Inflammation: A Double-Headed Sword in Depression? In: Leonard B. and Halaris A. (eds.) Modern Trends in Pharmacopsychiatry: Inflammation in Psychiatry; Basel, Karger, 2013, vol 28, pp 127-143