Christoph Anacker, PhD

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Personal Statement

My main research interest lies in identifying neural circuits underlying differences in vulnerability to developing psychiatric disorders. My particular focus is thereby on neural circuits that mediate individual differences in stress susceptibility and resilience, with the goal to develop new strategies for improved pharmacological or behavioral treatments and interventions. During my graduate and postdoctoral work, I first studied molecular mechanisms by which stress hormones, cytokines, and antidepressants regulate hippocampal neurogenesis in a unique *in vitro* model of human hippocampal stem cells. I then used a number of complementary transgenic mouse models to investigate how hippocampal neurogenesis mediates stress effects on neural activity and anxiety-like behavior *in vivo*. My most recent work has shown that the ventral hippocampus is a crucial mediator for individual differences in stress susceptibility. Since starting my lab at Columbia in 2019, I have been continuing my work on the neural circuits of stress susceptibility, by studying how projections from the ventral hippocampus to the prefrontal cortex regulate cognitive flexibility, which is an important executive function that is impaired in many stress-induced psychiatric disorders. I am also studying how early life adversity affects the development of the hippocampus and its afferent and efferent connections, thereby ultimately resulting in psychopathology later in life. My work over the last 13 years has resulted in an H-index of 25 and a total of 31 scientific publications that together have been cited more than 5,700 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 Mentor: *Prof. René Hen*	New York, USA
05/ 2013 – 04/ 2014	**Postdoctoral Researcher** Dept. of Psychiatry, McGill University Douglas Mental Health Institute Mentor: *Prof. Michael J. Meaney*	Montreal, Canada
11/ 2011 – 04/ 2013	**Postdoctoral Researcher** Dept. of Psychological Medicine, King's College London Institute of Psychiatry Mentor: *Prof. Carmine M. Pariante*	London, UK

Education

10/ 2008 – 12/ 2011	**Dept. of Psychological Medicine, King's College London** **Institute of Psychiatry** PhD, (December, 1st 2011) Title**:** *Glucocorticoid receptor-dependent effects of antidepressants on human hippocampal neurogenesis* Mentor: *Prof. Carmine M. Pariante*	London, UK
07/ 2006 – 10/ 2008	**International Max-Planck Research School Neuroscience** MSc, October 2008	Goettingen, Germany
10/ 2007 – 10/ 2008	**Dept. of Neurology, Stanford University** Mentor: *Prof. Katrin Andreasson*	Palo Alto, USA
07/ 2003 – 10/ 2006	**Georg- August University** Vordiplom, July 2006	Goettingen, Germany

Grant Support

Current Support

NIH R00MH108719-04 **Anacker (PI)** **03/2019 - 12/2021**
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 R00MH108719-03S1 **Anacker (PI)** **11/2019 - 08/2021**
Diversity Supplement for Mr. Ryan Shores

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 (Project 2: Animal Project)

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

Brain & Behavior Research Foundation (NARSAD) **Anacker (PI)** **01/2021 - 12/2022**
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.

Virtual Depression Center (NYSPI) **Anacker (PI)** **03/2019 - 03/2022**
Identifying Novel Diagnostic Biomarkers of Depression Risk
The goal of this pilot study is to investigate neural circuit dysfunction and blood-based biomarkers for depression risk in human individuals with a family history of depression

Columbia Stem Cell Initiative (CSCI) **Anacker (PI)** **09/2019 - 08/2022**
Investigating the Role of Neural Stem Cells for Age-related Cognitive Decline and Emotional Behavior
The goal of this study is to investigate new strategies to harness the potential of adult hippocampal neurogenesis to prevent and treat cognitive decline and psychiatric disorders.

Sunovion Pharmaceuticals **Anacker (PI)** **03/2020 - 03/2022**

RISE Award **Anacker (PI)** **03/2020 - 03/2022**
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 R01 MH126105-01A **Anacker (PI)**
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.

NIH P50 Center for Intergenerational Psychiatry (CIP) **Duarte (PI)**
The goal of this Silvio O. Conte Center is to elucidate the intergenerational effects of stress on cognitive control and emotion regulation, as well as biological transmission pathways in clinical cohorts and rodent models.
Role: Project Lead (Project 4: Rodent Models)

NIA R01 **Denny (PI)**
Lifelong neurobiological and molecular changes in a mouse model of gonadotropin-releasing hormone-induced puberty suppression and cross-sex hormone replacement
In this collaborative R01 with PIs Denny, Ehrhardt, and Anacker, we will use our newly developed mouse model of transgender care to investigate how puberty blockade and cross-sex hormone treatment affects brain function and behavior across the lifespan
Role: Co-PI & CU Subcontract PI

Past Support

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

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 for 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

2019 - Editorial Board Member: Frontiers in Psychiatry
2015 - Editorial Board Member: Scientific Reports

Scientific Societies

2019 - American College of Neuropsychopharmacology (ACNP)
2017 - Society of Biological Psychiatry (SOBP)
2014 - Canadian Association for Neuroscience (CAN)
2011 - 2013 European College of Neuropsychopharmacology (ECNP)
2009 - Society for Neuroscience (SfN)
2009 - 2013 British Association for Psychopharmacology (BAP)

Mentoring Experience

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

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

2021 Society for Biological Psychiatry, annual meeting (virtual), *Symposium, Co-Chair*
2020 Inscopix Neural Circuits Webinar
2020 Society for Biological Psychiatry, annual meeting (New York), *Symposium - cancelled*
2020 Psychiatry Grand Rounds (Columbia)
2019 Spring Hippocampus Conference (Taormina), *Symposium, Chair*
2019 Canadian Association for Neuroscience, annual meeting (Toronto), *Symposium*
2019 Society of Biological Psychiatry, annual meeting (Chicago), *Symposium*
2019 Cyber Bullying and Mental Health Symposium, HDRF (East Hampton), *Invited Discussant*
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), *Symposium*
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*
2017 Society for Biological Psychiatry, annual meeting (San Diego), *Symposium*
2017 European College of Neuropsychopharmacology, annual meeting (Paris), *Symposium*
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*
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*
2013 Society of Biological Psychiatry, annual meeting (San Francisco), *Symposium*
2012 European College of Neuropsychopharmacology, annual meeting (Vienna), *Symposium*
2011 INSERM (Tours), *Invited Talk*
2011 Society for Neuroscience, annual meeting (Washington DC), *Nanosymposium*
2011 European College of Neuropsychopharmacology, annual meeting (Istanbul), *Symposium*
2011 Physiological Society, Cellular & Integrative Neuroscience Meeting (London), *Plenary Lecture*
2011 European College of Neuropsychopharmacology, young scientists workshop (Nice), *Symposium*
2010 Society for Neuroscience, annual meeting (San Diego), *Nanosymposium*
2010 European Psychiatric Association (Munich), *Symposium*
2009 Society for Neuroscience, annual meeting (Chicago), *Nanosymposium*

Podcasts & Media

- **July, 23 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: 5714 **H-index:** 25 **** = corresponding author***

1. **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 2020; epub ahead of print
2. 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
3. Provençal N., Arloth J., Cattaneo A., **Anacker C.**, Cattane 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; (9)
4. **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
5. **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
6. 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
7. **Anacker C.*,** and Hen R, Adult hippocampal neurogenesis and cognitive flexibility - linking memory and mood; Nature Reviews Neuroscience 2017; Jun;18(6):335-346
8. **Anacker C.**, Scholz J., O'Donnell KJ., 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.
9. 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.
10. **Anacker C.,** Denny CA., Hen R., Regulation of hippocampal memory traces by neurogenesis, Neurogenesis 2015; Sep 17;2(1):e1025180.
11. **Anacker C.,** O'Donnell KJ., Meaney MJ., Early Life Adversity and the Epigenetic Programming of Hypothalamic-Pituitary-Adrenal Function, Dialogues in Clin Neuroscience 2014, Sep;16(3):321-33
12. **Anacker C.*,** Fresh approaches to antidepressant drug discovery, Expert Opin Drug Discovery 2014, Apr;9(4):407-21
13. 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
14. **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
15. 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
16. **Anacker C.***, Cattaneo A., Luoni A., Musaelyan K., Zunszain PA., Milanesi 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.
17. 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 KJ., 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
18. Mondelli V., **Anacker C.**, Cattaneo A., Vernon A., Modo M., Dazzan P., Kapur S., Pariante CM.; Haloperidol and Olanzapine mediate metabolic abnormalities through different molecular pathways; Translational Psychiatry 2013; Jan15

19. 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
20. **Anacker C.***,* Molecular Pathways to Depression, The Biochemist 2013; 35(3),10-14
21. 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.
22. Zunszain PA., **Anacker C.**, Cattaneo A., Choudhury S., Musaelyan K., Myint AM., Thuret S., Price J., Pariante CM.; Interleukin-1β: a new regulator of the kynurenine pathway affecting human hippocampal neurogenesis Neuropsychopharmacology 2012; Mar;37(4):939-49
23. **Anacker C.*** and Pariante CM.; New models to investigate complex glucocorticoid receptor functions, Front. Behav. Neuroscience 2012; 6:90
24. **Anacker C**. and Pariante CM.; Can adult neurogenesis buffer stress responses and depressive behaviour? Molecular Psychiatry 2012; Jan;17(1):9-10
25. **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.
26. 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
27. **Anacker C.***, Zunszain PA., Carvalho LA., Pariante CM.; The glucocorticoid receptor: pivot of depression and of antidepressant treatment? Psychoneuroendocrinology 2011; 36(3): 415-425.
28. 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.
29. 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
30. 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