Adaptations in brain reward circuitry underlie palatable food cravings and anxiety induced by high-fat diet withdrawal

DOI: 10.1038/ijo.2012.197
International Journal of Obesity, 2013, 37, 1183-91.

#	Paper	IF	Citations
161	Biological mechanisms that promote weight regain following weight loss in obese humans. **2013**, 120, 106-13		106
160	A high-fat diet or galanin in the PVN decreases phosphorylation of CREB in the nucleus accumbens. *Neuroscience*, **2013**, 248, 61-6	3.9	7
159	Metabolic disturbances connecting obesity and depression. *Frontiers in Neuroscience*, **2013**, 7, 177	5.1	179
158	The central GLP-1: implications for food and drug reward. *Frontiers in Neuroscience*, **2013**, 7, 181	5.1	96
157	Differential modulation of arcuate nucleus and mesolimbic gene expression levels by central leptin in rats on short-term high-fat high-sugar diet. *PLoS ONE*, **2014**, 9, e87729	3.7	17
156	Feelings about food: the ventral tegmental area in food reward and emotional eating. **2014**, 35, 31-40		96
155	High trait impulsivity predicts food addiction-like behavior in the rat. *Neuropsychopharmacology*, **2014**, 39, 2463-72	8.7	90
154	Weight loss by calorie restriction versus bariatric surgery differentially regulates the hypothalamo-pituitary-adrenocortical axis in male rats. *Stress*, **2014**, 17, 484-93	3	21
153	Analyses of meal patterns across dietary shifts. *Appetite*, **2014**, 75, 21-9	4.5	21
152	Neurotrophins in the ventral tegmental area: Role in social stress, mood disorders and drug abuse. *Neuroscience*, **2014**, 282, 122-38	3.9	28
151	Mood, food, and obesity. *Frontiers in Psychology*, **2014**, 5, 925	3.4	194
150	Effects of palatable cafeteria diet on cognitive and noncognitive behaviors and brain neurotrophinsSlevels in mice. *Metabolic Brain Disease*, **2015**, 30, 1073-82	3.9	27
149	High fat diet decreases beneficial effects of estrogen on serotonin-related gene expression in marmosets. **2015**, 58, 71-80		7
148	CRF2 Receptor Deficiency Eliminates the Long-Lasting Vulnerability of Motivational States Induced by Opiate Withdrawal. *Neuropsychopharmacology*, **2015**, 40, 1990-2000	8.7	10
147	Variations in the neonatal environment modulate adult behavioral and brain responses to palatable food withdrawal in adult female rats. **2015**, 40, 70-5		6
146	Juvenile obesity enhances emotional memory and amygdala plasticity through glucocorticoids. **2015**, 35, 4092-103		66
145	Neurochemical and electrophysiological deficits in the ventral hippocampus and selective behavioral alterations caused by high-fat diet in female C57BL/6 mice. *Neuroscience*, **2015**, 297, 170-81	3.9	60

144	Integrated circuits and molecular components for stress and feeding: implications for eating disorders. **2015**, 14, 85-97		30
143	Food and addiction among the ageing population. **2015**, 20, 79-85		49
142	A high multivitamin diet fed to Wistar rat dams during pregnancy increases maternal weight gain later in life and alters homeostatic, hedonic and peripheral regulatory systems of energy balance. *Behavioural Brain Research*, **2015**, 278, 1-11	3.4	9
141	Adolescent Maturational Transitions in the Prefrontal Cortex and Dopamine Signaling as a Risk Factor for the Development of Obesity and High Fat/High Sugar Diet Induced Cognitive Deficits. **2016**, 10, 189		50
140	Do Dopaminergic Impairments Underlie Physical Inactivity in People with Obesity?. **2016**, 10, 514		26
139	Long Term Feeding Patterns Highlight Preference for Sucrose in the Fruit Fly Anastrepha serpentina When Given a Choice over Other More Nutritious Food Sources. **2016**, 29, 719-734		1
138	Dopamine signalling adaptations by prolonged high-fat feeding. **2016**, 9, 136-143		15
137	From gut dysbiosis to altered brain function and mental illness: mechanisms and pathways. **2016**, 21, 738-48		468
136	Fermented Barley Supplementation Modulates the Expression of Hypothalamic Genes and Reduces Energy Intake and Weight Gain in Rats. **2016**, 19, 418-26		3
135	Increased intake of fat and cholesterol as a pathogenetic factor of depression: A possible molecular mechanism. **2016**, 10, 26-33		1
134	HPA Axis Interactions with Behavioral Systems. **2016**, 6, 1897-1934		28
133	DBI/ACBP loss-of-function does not affect anxiety-like behaviour but reduces anxiolytic responses to diazepam in mice. *Behavioural Brain Research*, **2016**, 313, 201-207	3.4	9
132	Food Addiction: Applying Substance Use Disorder Criteria and Characteristics to Identify Instances of Addictive-Like Eating. **2016**, 1008-1018		
131	The Effect of Maternal Overnutrition on Reward and Anxiety in Offspring. **2016**, 187-200		
130	Association between energy drink intake, sleep, stress, and suicidality in Korean adolescents: energy drink use in isolation or in combination with junk food consumption. **2016**, 15, 87		58
129	Emotional profile of female rats showing binge eating behavior. **2016**, 163, 136-143		9
128	Effect of high-fat diets on mood and learning performance in adolescent mice. *Behavioural Brain Research*, **2016**, 311, 167-172	3.4	33
127	Consumption of palatable food primes food approach behavior by rapidly increasing synaptic density in the VTA. **2016**, 113, 2520-5		39

126	Central Agonism of GPR120 Acutely Inhibits Food Intake and Food Reward and Chronically Suppresses Anxiety-Like Behavior in Mice. **2016**, 19,		35
125	Decreased rates of operant food self-administration are associated with reward deficits in high-fat feeding mice. **2016**, 55, 1615-22		9
124	Energetic stress: The reciprocal relationship between energy availability and the stress response. **2016**, 166, 43-55		22
123	Dampened Mesolimbic Dopamine Function and Signaling by Saturated but not Monounsaturated Dietary Lipids. *Neuropsychopharmacology*, **2016**, 41, 811-21	8.7	69
122	High-fat diet exacerbates cognitive rigidity and social deficiency in the BTBR mouse model of autism. *Neuroscience*, **2017**, 345, 142-154	3.9	31
121	Addiction-like Synaptic Impairments in Diet-Induced Obesity. **2017**, 81, 797-806		56
120	The relationship between emotional regulation and eating behaviour: a multidimensional analysis of obesity psychopathology. **2017**, 22, 105-115		41
119	Elimination dietsSefficacy and mechanisms in attention deficit hyperactivity disorder and autism spectrum disorder. **2017**, 26, 1067-1079		38
118	Obesogenic diet intake during pregnancy programs aberrant synaptic plasticity and addiction-like behavior to a palatable food in offspring. *Behavioural Brain Research*, **2017**, 330, 46-55	3.4	16
117	Changes in gene expression and sensitivity of cocaine reward produced by a continuous fat diet. **2017**, 234, 2337-2352		17
116	Saturated high-fat feeding independent of obesity alters hypothalamus-pituitary-adrenal axis function but not anxiety-like behaviour. *Psychoneuroendocrinology*, **2017**, 83, 142-149	5	30
115	Pathological Overeating: Emerging Evidence for a Compulsivity Construct. *Neuropsychopharmacology*, **2017**, 42, 1375-1389	8.7	67
114	Patterned feeding induces neuroendocrine, behavioral and genetic changes that promote palatable food intake. *International Journal of Obesity*, **2017**, 41, 412-419	5.5	16
113	Intermittent access to a nutritionally complete high-fat diet attenuates alcohol drinking in rats. **2017**, 153, 105-115		18
112	Effects of Hypericum Scabrum extract on anxiety and oxidative stress biomarkers in rats fed a long-term high-fat diet. *Metabolic Brain Disease*, **2017**, 32, 503-511	3.9	23
111	Binge-like intake of HFD attenuates alcohol intake in rats. **2017**, 178, 187-195		12
110	Effects of bingeing on fat during adolescence on the reinforcing effects of cocaine in adult male mice. *Neuropharmacology*, **2017**, 113, 31-44	5.5	26
109	The impact of junk foods on the adolescent brain. **2017**, 109, 1649-1658		27

108	Obesity and Co-morbid Conditions Are Associated with Specific Neuropsychiatric Symptoms in Mild Cognitive Impairment. **2017**, 9, 164		14
107	Neuroscience of Compulsive Eating Behavior. *Frontiers in Neuroscience*, **2017**, 11, 469	5.1	29
106	Nucleus accumbens inflammation mediates anxiodepressive behavior and compulsive sucrose seeking elicited by saturated dietary fat. **2018**, 10, 1-13		41
105	Effect of steady-state methadone on high fructose corn syrup consumption in rats. **2018**, 32, 215-222		4
104	Time-course and dynamics of obesity-related behavioral changes induced by energy-dense foods in mice. **2018**, 23, 531-543		8
103	Cafeteria diet and probiotic therapy: cross talk among memory, neuroplasticity, serotonin receptors and gut microbiota in the rat. **2018**, 23, 351-361		62
102	Perinatal deficiency in dietary omega-3 fatty acids potentiates sucrose reward and diet-induced obesity in mice. **2018**, 64, 8-13		10
101	Sucrose withdrawal induces depression and anxiety-like behavior by Kir2.1 upregulation in the nucleus accumbens. *Neuropharmacology*, **2018**, 130, 10-17	5.5	60
100	Short-term high-fat diet primes excitatory synapses for long-term depression in orexin neurons. *Journal of Physiology*, **2018**, 596, 305-316	3.9	20
99	The Concept of Food Addiction: a Review of the Current Evidence. **2018**, 5, 281-294		7
98	Daily Fluctuation of Orexin Neuron Activity and Wiring: The Challenge of "Chronoconnectivity". **2018**, 9, 1061		20
97	Effects of high fat or high sucrose diet on behavioral-response to social defeat stress in mice. **2018**, 9, 1-8		16
96	Comparison of the Time-Dependent Changes in Immediate Early Gene Labeling and Spine Density Following Abstinence From Contingent or Non-contingent Chocolate Pellet Delivery. **2018**, 12, 144		4
95	Diet, Microbiome, and Neuropsychiatric Disorders. **2018**, 369-405		1
94	Preadolescent Phthalate (DEHP) Exposure Is Associated With Elevated Locomotor Activity and Reward-Related Behavior and a Reduced Number of Tyrosine Hydroxylase Positive Neurons in Post-Adolescent Male and Female Rats. **2018**, 165, 512-530		11
93	The Western Diet-Microbiome-Host Interaction and Its Role in Metabolic Disease. *Nutrients*, **2018**, 10,	6.7	247
92	What Is the Evidence for "Food Addiction?" A Systematic Review. *Nutrients*, **2018**, 10,	6.7	109
91	Obesity and Stress: The Melanocortin Connection. **2018**, 271-319		

90	Persistent effects of obesity: a neuroplasticity hypothesis. **2018**, 1428, 221-239		25
89	Increased ethanol consumption after interruption of fat bingeing. *PLoS ONE*, **2018**, 13, e0194431	3.7	3
88	Oral supplementation with ginseng polysaccharide promotes food intake in mice. **2019**, 9, e01340		6
87	Dissecting compulsive eating behavior into three elements. **2019**, 41-81		2
86	Interactions of hedonic and homeostatic systems in compulsive overeating. **2019**, 251-291		
85	Modeling and testing compulsive eating behaviors in animals. **2019**, 359-388		1
84	Fat rather than sugar diet leads to binge-type eating, anticipation, effort behavior and activation of the corticolimbic system. *Nutritional Neuroscience*, **2021**, 24, 508-519	3.6	4
83	A novel designer drug, 25N-NBOMe, exhibits abuse potential via the dopaminergic system in rodents. **2019**, 152, 19-26		12
82	Effect of Metformin on Short-Term High-Fat Diet-Induced Weight Gain and Anxiety-Like Behavior and the Gut Microbiota. *Frontiers in Endocrinology*, **2019**, 10, 704	5.7	16
81	Effects of disrupted ghrelin receptor function on fear processing, anxiety and saccharin preference in mice. *Psychoneuroendocrinology*, **2019**, 110, 104430	5	8
80	Modulation of high fat diet-induced microbiome changes, but not behaviour, by minocycline. **2019**, 82, 309-318		5
79	Reduced Sensory-Evoked Locus Coeruleus-Norepinephrine Neural Activity in Female Rats With a History of Dietary-Induced Binge Eating. *Frontiers in Psychology*, **2019**, 10, 1966	3.4	8
78	Differential Impact of Ad Libitum or Intermittent High-Fat Diets on Bingeing Ethanol-Mediated Behaviors. *Nutrients*, **2019**, 11,	6.7	2
77	Chronic stress increases susceptibility to food addiction by increasing the levels of DR2 and MOR in the nucleus accumbens. **2019**, 15, 1211-1229		15
76	Spexin-Based Galanin Receptor Type 2 Agonist for Comorbid Mood Disorders and Abnormal Body Weight. *Frontiers in Neuroscience*, **2019**, 13, 391	5.1	23
75	Sucrose and saccharin differentially modulate depression and anxiety-like behavior in diabetic mice: exposures and withdrawal effects. **2019**, 236, 3095-3110		6
74	Mediterranean X Western based diets: Opposite influences on opioid reinstatement. **2019**, 308, 7-16		9
73	Stressing the importance of choice: Validity of a preclinical free-choice high-caloric diet paradigm to model behavioural, physiological and molecular adaptations during human diet-induced obesity and metabolic dysfunction. **2019**, 31, e12718		12

72	GLP-1/dexamethasone inhibits food reward without inducing mood and memory deficits in mice. *Neuropharmacology*, **2019**, 151, 55-63	5.5	11
71	The Prefrontal Cortex and Obesity: A Health Neuroscience Perspective. **2019**, 23, 349-361		111
70	Dysbiosis of the Microbiota in Anorexia Nervosa: Pathophysiological Implications. **2019**,		
69	Random access to palatable food stimulates similar addiction-like responses as a fixed schedule, but only a fixed schedule elicits anticipatory activation. *Scientific Reports*, **2019**, 9, 18223	4.9	7
68	Exploring time-dependent changes in conditioned place preference for food reward and associated changes in the nucleus accumbens. *Behavioural Brain Research*, **2019**, 361, 14-25	3.4	7
67	Hypothalamic Networks in Adolescents With Excess Weight: Stress-Related Connectivity and Associations With Emotional Eating. **2019**, 58, 211-220.e5		13
66	High-fat diet withdrawal modifies alcohol preference and transcription of dopaminergic and GABAergic receptors. **2019**, 33, 10-20		4
65	Current nutritional approaches in managing autism spectrum disorder: A review. *Nutritional Neuroscience*, **2019**, 22, 145-155	3.6	33
64	High-fat diet induces depression-like behaviour in mice associated with changes in microbiome, neuropeptide Y, and brain metabolome. *Nutritional Neuroscience*, **2019**, 22, 877-893	3.6	77
63	Lard-rich and canola oil-rich high-fat diets during pregnancy promote ratsSoffspring neurodevelopmental delay and behavioral disorders. **2020**, 213, 112722		6
62	Development of the Highly Processed Food Withdrawal Scale for Children. *Appetite*, **2020**, 147, 104553	4.5	10
61	Early life stress and the programming of eating behavior and anxiety: Sex-specific relationships with serotonergic activity and hypothalamic neuropeptides. *Behavioural Brain Research*, **2020**, 379, 112399	3.4	17
60	Withdrawing from obesogenic diets: benefits and barriers in the short- and long-term in rodent models. *American Journal of Physiology - Endocrinology and Metabolism*, **2020**, 319, E485-E493	6	3
59	Sex differences in the effect of acute fasting on excitatory and inhibitory synapses onto ventral tegmental area dopamine neurons. *Journal of Physiology*, **2020**, 598, 5523-5539	3.9	5
58	High fat diet consumption restricted to adolescence has minimal effects on adult executive function that vary by sex. *Nutritional Neuroscience*, **2020**, 1-11	3.6	
57	Western Diet: Implications for Brain Function and Behavior. *Frontiers in Psychology*, **2020**, 11, 564413	3.4	11
56	Glutamatergic projections from homeostatic to hedonic brain nuclei regulate intake of highly palatable food. *Scientific Reports*, **2020**, 10, 22093	4.9	2
55	Maternal anxiety and diet quality among mothers and toddlers from low-income households. *Maternal and Child Nutrition*, **2020**, 16, e12992	3.4	4

54	Adolescent obesity and dietary decision making-a brain-health perspective. *The Lancet Child and Adolescent Health*, **2020**, 4, 388-396	14.5	32
53	Weight Loss After Obesity is Associated with Increased Food Motivation and Faster Weight Regain in Mice. *Obesity*, **2020**, 28, 851-856	8	10
52	Adolescent Vulnerability to Heightened Emotional Reactivity and Anxiety After Brief Exposure to an Obesogenic Diet. *Frontiers in Neuroscience*, **2020**, 14, 562	5.1	5
51	Food Addiction Correlates with Psychosocial Functioning More Than Metabolic Parameters in Patients with Obesity. *Metabolic Syndrome and Related Disorders*, **2020**, 18, 161-167	2.6	10
50	The Ghrelin-AgRP Neuron Nexus in Anorexia Nervosa: Implications for Metabolic and Behavioral Adaptations. *Frontiers in Nutrition*, **2019**, 6, 190	6.2	6
49	Ileal Transposition in Rats Reduces Energy Intake, Body Weight, and Body Fat Most Efficaciously When Ingesting a High-Protein Diet. *Obesity Surgery*, **2020**, 30, 2729-2742	3.7	1
48	Access schedules mediate the impact of high fat diet on ethanol intake and insulin and glucose function in mice. *Alcohol*, **2020**, 86, 45-56	2.7	4
47	Focusing the fight against processed food addiction. **2020**, 157-170		0
46	The Role of Microbiome, Dietary Supplements, and Probiotics in Autism Spectrum Disorder. *International Journal of Environmental Research and Public Health*, **2020**, 17,	4.6	25
45	Anhedonia induced by high-fat diet in mice depends on gut microbiota and leptin. *Nutritional Neuroscience*, **2020**, 1-14	3.6	8
44	Neurobiology and Cognitive Neuroscience of Hedonic Eating. **2021**, 109-125		
43	Cannabinoid CB1 receptor in dorsal telencephalic glutamatergic neurons drives overconsumption of palatable food and obesity. *Neuropsychopharmacology*, **2021**, 46, 982-991	8.7	1
42	Persistence of Operant Responding for Food After Prior Cocaine Exposure in Fischer 344 But Not Lewis Rats. *American Journal on Addictions*, **2021**, 30, 358-365	3.7	0
41	The Effects of Human Milk Oligosaccharide Supplementation During Critical Periods of Development on the Mesolimbic Dopamine System. *Neuroscience*, **2021**, 459, 166-178	3.9	3
40	Effects of high fat diet-induced obesity and pregnancy on prepartum and postpartum maternal mouse behavior. *Psychoneuroendocrinology*, **2021**, 126, 105147	5	2
39	Diet, Physical Activity, and Disinhibition in Middle-Aged and Older Adults: A UK Biobank Study. *Nutrients*, **2021**, 13,	6.7	0
38	AMPK in the gut-liver-brain axis and its influence on OP rats in an HSHF intake and WTD rat model. *Pflugers Archiv European Journal of Physiology*, **2021**, 473, 1199-1211	4.6	1
37	Addiction-like response in brain and behavior in a rat experimental model of night-eating syndrome. *Appetite*, **2021**, 161, 105112	4.5	

36	Unhealthy Lifestyle and Gut Dysbiosis: A Better Understanding of the Effects of Poor Diet and Nicotine on the Intestinal Microbiome. *Frontiers in Endocrinology*, **2021**, 12, 667066	5.7	15
35	Obesity and dietary fat influence dopamine neurotransmission: exploring the convergence of metabolic state, physiological stress, and inflammation on dopaminergic control of food intake. *Nutrition Research Reviews*, **2021**, 1-16	7	4
34	Replacing a Palatable High-Fat Diet with a Low-Fat Alternative Heightens Opioid Receptor Control over Nucleus Accumbens Dopamine. *Nutrients*, **2021**, 13,	6.7	1
33	Palatable high-fat diet intake influences mnemonic and emotional aspects in female rats in an estrous cycle-dependent manner. *Metabolic Brain Disease*, **2021**, 36, 1717-1727	3.9	2
32	Dynamic regional alterations in mouse brain neuronal activity following short-term changes in energy balance. *Obesity*, **2021**, 29, 1650-1663	8	0
31	The influence of COVID-19-related stress on food motivation. *Appetite*, **2021**, 163, 105233	4.5	10
30	Converging vulnerability factors for compulsive food and drug use. *Neuropharmacology*, **2021**, 196, 108556	5.6	4
29	Anxiety and psychological management of heart disease and heart surgery. *Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn*, **2021**, 177, 393-408	3	
28	Early maturational emergence of adult-like emotional reactivity and anxiety after brief exposure to an obesogenic diet.		2
27	Developmental regulation of fear memories by an obesogenic high-saturated fat/high-sugar diet.		2
26	Increased anxiety-like behavior is associated with the metabolic syndrome in non-stressed rats. *PLoS ONE*, **2017**, 12, e0176554	3.7	35
25	Modulatory Effects of Food Restriction on Brain and Behavioral Effects of Abused Drugs. *Current Pharmaceutical Design*, **2020**, 26, 2363-2371	3.3	7
24	Stress exposure, food intake and emotional state. *Stress*, **2015**, 18, 381-99	3	86
23	Developmental programming of brain and behavior by perinatal diet: focus on inflammatory mechanisms. *Dialogues in Clinical Neuroscience*, **2014**, 16, 307-20	5.7	94
22	Neurogenetics and Neurobiology of Dopamine in Anhedonia. **2014**, 179-208		
21	Access schedules mediate the impact of high fat diet on ethanol intake and insulin and glucose function in mice.		
20	Sex differences in the effect of acute fasting on excitatory and inhibitory synapses onto ventral tegmental area dopamine neurons.		1
19	Diet, physical activity and behavioural disinhibition in middle-aged and older adults: a UK Biobank study.		0

18	The menace of obesity to depression and anxiety prevalence. *Trends in Endocrinology and Metabolism*, **2021**,	8.8	5
17	Enhanced food motivation in obese mice is controlled by D1R expressing spiny projection neurons in the nucleus accumbens.		0
16	ΔFOSB: A Potentially Druggable Master Orchestrator of Activity-Dependent Gene Expression.. *ACS Chemical Neuroscience*, **2022**,	5.7	1
15	Transcriptomics in the nucleus accumbens shell reveal sex- and reinforcer-specific signatures associated with morphine and sucrose craving.. *Neuropsychopharmacology*, **2022**,	8.7	0
14	Obesity II: Establishing Causal Links Between Chemical Exposures and Obesity.. *Biochemical Pharmacology*, **2022**, 115015	6	6
13	A new analytical pipeline reveals metatranscriptomic changes upon high-fat diet in a Down syndrome mouse model.		
12	Table_1.DOCX. **2019**,		
11	Data_Sheet_1.PDF. **2019**,		
10	Cerebral pCREB-dependent social behavioral adversities following a short-term exposure to obesogenic diets in young hamsters.. *Neurotoxicology and Teratology*, **2022**, 92, 107094	3.9	
9	Régimes hyperlipidiques et dépression. **2022**,		
8	Corticotropin-releasing factor system in the lateral septum: Implications in the pathophysiology of obesity. 15,		0
7	Hippocampal BDNF mediated anxiety-like behaviours induced by obesogenic diet withdrawal. **2023**, 436, 114077		0
6	Prefrontal Cortical Control of Activity in Nucleus Accumbens Core Is Weakened by High-Fat Diet and Prevented by Co-Treatment with N-Acetylcysteine: Implications for the Development of Obesity. **2022**, 23, 10089		0
5	(-)-Epicatechin mitigates anxiety-related behavior in a mouse model of high fat diet-induced obesity. **2022**, 109158		0
4	Nucleus accumbens D1R expressing spiny projection neurons control food motivation and obesity.. **2022**,		0
3	Neuronal Nitric Oxide Synthase Regulates Depression-like Behaviors in Shortening-Induced Obese Mice. **2022**, 14, 4302		1
2	Anxiety associated with palatable food withdrawal is reversed by the selective FAAH inhibitor PF -3845: A regional analysis of the contribution of endocannabinoid signaling machinery.		0
1	Habitual daily intake of a sweet and fatty snack modulates reward processing in humans. **2023**, 35, 571-584.e6		0