FranÃ§ois Blachier

List of Publications by Year
in descending order

121 papers	6,665 citations	66315 42 h-index	69214 77 g-index
121 all docs	121 docs citations	121 times ranked	7092 citing authors

#	Article	IF	Citations
1	Sulfide, the first inorganic substrate for human cells. FASEB Journal, 2007, 21, 1699-1706.	0.2	368
2	Effects of amino acid-derived luminal metabolites on the colonic epithelium and physiopathological consequences. Amino Acids, 2007, 33, 547-562.	1.2	361
3	Intestinal luminal nitrogen metabolism: Role of the gut microbiota and consequences for the host. Pharmacological Research, 2013, 68, 95-107.	3.1	349
4	Metabolism and functions of l-glutamate in the epithelial cells of the small and large intestines. American Journal of Clinical Nutrition, 2009, 90, 814S-821S.	2.2	244
5	Gut microbiota role in dietary protein metabolism and health-related outcomes: The two sides of the coin. Trends in Food Science and Technology, 2016, 57, 213-232.	7.8	237
6	Oxidation of hydrogen sulfide remains a priority in mammalian cells and causes reverse electron transfer in colonocytes. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 1500-1511.	0.5	225
7	Butyrate utilization by the colonic mucosa in inflammatory bowel diseases. Inflammatory Bowel Diseases, 2010, 16, 684-695.	0.9	200
8	Mitochondria and Sulfide: A Very Old Story of Poisoning, Feeding, and Signaling?. Antioxidants and Redox Signaling, 2011, 15, 379-391.	2.5	183
9	Re-print of â€œIntestinal luminal nitrogen metabolism: Role of the gut microbiota and consequences for the hostâ€. Pharmacological Research, 2013, 69, 114-126.	3.1	175
10	Luminal sulfide and large intestine mucosa: friend or foe?. Amino Acids, 2010, 39, 335-347.	1.2	174
11	Quantity and source of dietary protein influence metabolite production by gut microbiota and rectal mucosa gene expression: a randomized, parallel, double-blind trial in overweight humans. American Journal of Clinical Nutrition, 2017, 106, 1005-1019.	2.2	168
12	Adaptative metabolic response of human colonic epithelial cells to the adverse effects of the luminal compound sulfide. Biochimica Et Biophysica Acta - General Subjects, 2005, 1725, 201-212.	1.1	157
13	Review of the association between meat consumption and risk of colorectal cancer. Nutrition Research, 2013, 33, 983-994.	1.3	133
14	Cysteine-derived hydrogen sulfide and gut health. Current Opinion in Clinical Nutrition and Metabolic Care, 2019, 22, 68-75.	1.3	119
15	Stimulus-Secretion Coupling of Arginine-Induced Insulin Release. Uptake of Metabolized and Nonmetabolized Cationic Amino Acids by Pancreatic Islets*. Endocrinology, 1989, 124, 134-141.	1.4	114
16	Detrimental effects for colonocytes of an increased exposure to luminal hydrogen sulfide: The adaptive response. Free Radical Biology and Medicine, 2016, 93, 155-164.	1.3	111
17	The deleterious metabolic and genotoxic effects of the bacterial metabolite p-cresol on colonic epithelial cells. Free Radical Biology and Medicine, 2015, 85, 219-227.	1.3	108
18	Colon luminal content and epithelial cell morphology are markedly modified in rats fed with a high-protein diet. American Journal of Physiology - Renal Physiology, 2010, 299, G1030-G1037.	1.6	100

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19	Detoxification of H₂S by Differentiated Colonic Epithelial Cells: Implication of the Sulfide Oxidizing Unit and of the Cell Respiratory Capacity. Antioxidants and Redox Signaling, 2012, 17, 1-10.	2.5	95
20	High-protein diet modifies colonic microbiota and luminal environment but not colonocyte metabolism in the rat model: the increased luminal bulk connection. American Journal of Physiology - Renal Physiology, 2014, 307, G459-G470.	1.6	82
21	Changes in the Luminal Environment of the Colonic Epithelial Cells and Physiopathological Consequences. American Journal of Pathology, 2017, 187, 476-486.	1.9	82
22	High-protein diets for weight management: Interactions with the intestinal microbiota and consequences for gut health. A position paper by the my new gut study group. Clinical Nutrition, 2019, 38, 1012-1022.	2.3	82
23	Adaptative increase of ornithine production and decrease of ammonia metabolism in rat colonocytes after hyperproteic diet ingestion. American Journal of Physiology - Renal Physiology, 2004, 287, G344-G351.	1.6	81
24	Colonic luminal microbiota and bacterial metabolite composition in pregnant Huanjiang mini-pigs: effects of food composition at different times of pregnancy. Scientific Reports, 2016, 6, 37224.	1.6	74
25	Arginine metabolism in rat enterocytes. Biochimica Et Biophysica Acta - Molecular Cell Research, 1991, 1092, 304-310.	1.9	70
26	Butyrate metabolism upstream and downstream acetyl-CoA synthesis and growth control of human colon carcinoma cells. FEBS Journal, 2000, 267, 6435-6442.	0.2	66
27	Dietary supplementation with soybean oligosaccharides increases short-chain fatty acids but decreases protein-derived catabolites in the intestinal luminal content of weaned Huanjiang mini-piglets. Nutrition Research, 2014, 34, 780-788.	1.3	65
28	Stimulus-secretion coupling of arginine-induced insulin release. Functional response of islets to l-arginine and l-ornithine. Biochimica Et Biophysica Acta - Molecular Cell Research, 1989, 1013, 144-151.	1.9	62
29	Channelling of arginine in NO and polyamine pathways in colonocytes and consequences. Frontiers in Bioscience - Landmark, 2011, 16, 1331.	3.0	61
30	Dietary Protein and Amino Acid Supplementation in Inflammatory Bowel Disease Course: What Impact on the Colonic Mucosa?. Nutrients, 2017, 9, 310.	1.7	60
31	Butyrate metabolism in human colon carcinoma cells: Implications concerning its growthâ€inhibitory effect. Journal of Cellular Physiology, 2009, 218, 58-65.	2.0	59
32	Production of hydrogen sulfide by the intestinal microbiota and epithelial cells and consequences for the colonic and rectal mucosa. American Journal of Physiology - Renal Physiology, 2021, 320, G125-G135.	1.6	58
33	Glutamateâ€"glutamine cycle and exchange in the placentaâ€"fetus unit during late pregnancy. Amino Acids, 2015, 47, 45-53.	1.2	56
34	Dietary proline supplementation alters colonic luminal microbiota and bacterial metabolite composition between days 45 and 70 of pregnancy in Huanjiang mini-pigs. Journal of Animal Science and Biotechnology, 2018, 9, 18.	2.1	56
35	Amino Acids in Intestinal Physiology and Health. Advances in Experimental Medicine and Biology, 2020, 1265, 1-20.	0.8	53
36	Intestinal arginine metabolism during development. Evidence for de novo synthesis of l-arginine in newborn pig enterocytes. FEBS Journal, 1993, 216, 109-117.	0.2	52

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37	Inducible nitric oxide synthase activity in colon biopsies from inflammatory areas: correlation with inflammation intensity in patients with ulcerative colitis but not with Crohn's disease. Amino Acids, 2000, 18, 229-237.	1.2	51
38	Metabolic characteristics of pig colonocytes after adaptation to a high fiber diet. Journal of Nutrition, 1993, 123, 234-43.	1.3	50
39	High-protein diet differently modifies intestinal goblet cell characteristics and mucosal cytokine expression in ileum and colon. Journal of Nutritional Biochemistry, 2015, 26, 91-98.	1.9	49
40	Fuel selection in intestinal cells. Proceedings of the Nutrition Society, 1995, 54, 83-94.	0.4	45
41	Glucose, Galactose, and Glutamine Metabolism in Pig Isolated Enterocytes during Development. Pediatric Research, 1994, 36, 175-181.	1.1	44
42	Polyamine metabolism in enterocytes isolated from newborn pigs. Biochimica Et Biophysica Acta - Molecular Cell Research, 1992, 1175, 21-26.	1.9	43
43	Comparative capacities of the pig colon and duodenum for luminal iron absorption. Canadian Journal of Physiology and Pharmacology, 2007, 85, 185-192.	0.7	43
44	Colonic luminal ammonia and portal blood l-glutamine and l-arginine concentrations: a possible link between colon mucosa and liver ureagenesis. Amino Acids, 2009, 37, 751-760.	1.2	43
45	Metabolism of l-arginine through polyamine and nitric oxide synthase pathways in proliferative or differentiated human colon carcinoma cells. Biochimica Et Biophysica Acta - Molecular Cell Research, 1995, 1268, 255-262.	1.9	41
46	Dietary xylo-oligosaccharide supplementation alters gut microbial composition and activity in pigs according to age and dose. AMB Express, 2019, 9, 134.	1.4	40
47	Dietary protein supplementation in the elderly for limiting muscle mass loss. Amino Acids, 2017, 49, 33-47.	1.2	39
48	Effects of agmatine accumulation in human colon carcinoma cells on polyamine metabolism, DNA synthesis and the cell cycle. Biochimica Et Biophysica Acta - Molecular Cell Research, 2005, 1745, 111-123.	1.9	38
49	Haem iron reshapes colonic luminal environment: impact on mucosal homeostasis and microbiome through aldehyde formation. Microbiome, 2019, 7, 72.	4.9	38
50	Monosodium glutamate raises antral distension and plasma amino acid after a standard meal in humans. American Journal of Physiology - Renal Physiology, 2011, 300, G137-G145.	1.6	37
51	Oxidation of H2S in Mammalian Cells and Mitochondria. Methods in Enzymology, 2015, 554, 201-228.	0.4	37
52	Sulfur-Containing Amino Acids and Lipid Metabolism. Journal of Nutrition, 2020, 150, 2524S-2531S.	1.3	37
53	Portal Hyperglutamatemia after Dietary Supplementation with Monosodium Glutamate in Pigs. Digestion, 1999, 60, 349-357.	1.2	36
54	Mucosal Healing in Inflammatory Bowel Diseases. Inflammatory Bowel Diseases, 2015, 21, 198-207.	0.9	36

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55	Hyperosmolar environment and intestinal epithelial cells: impact on mitochondrial oxygen consumption, proliferation, and barrier function in vitro. Scientific Reports, 2019, 9, 11360.	1.6	36
56	Alimentary proteins, amino acids and cholesterolemia. Amino Acids, 2010, 38, 15-22.	1.2	35
57	Decreased glutamate, glutamine and citrulline concentrations in plasma and muscle in endotoxemia cannot be reversed by glutamate or glutamine supplementation: a primary intestinal defect?. Amino Acids, 2012, 43, 1485-1498.	1.2	35
58	Stages of pregnancy and weaning influence the gut microbiota diversity and function in sows. Journal of Applied Microbiology, 2019, 127, 867-879.	1.4	34
59	Compared with Raw Bovine Meat, Boiling but Not Grilling, Barbecuing, or Roasting Decreases Protein Digestibility without Any Major Consequences for Intestinal Mucosa in Rats, although the Daily Ingestion of Bovine Meat Induces Histologic Modifications in the Colon. Journal of Nutrition, 2016, 146, 1506-1513.	1.3	33
60	Characterization and ontogenesis of nitric oxide synthase activity in pig enterocytes. FEBS Letters, 1993, 331, 243-247.	1.3	31
61	Isolation of pig colonic crypts for cytotoxic assay of luminal compounds: effects of hydrogen sulfide, ammonia, and deoxycholic acid. Cell Biology and Toxicology, 2002, 18, 193-203.	2.4	31
62	Stimulus-Secretion Coupling of Arginine-Induced Insulin Release: Comparison with Lysine-Induced Insulin Secretion*. Endocrinology, 1989, 124, 2558-2567.	1.4	30
63	Sulfheme formation during homocysteine S-oxygenation by catalase in cancers and neurodegenerative diseases. Nature Communications, 2016, 7, 13386.	5.8	30
64	Animal Models for the Study of the Relationships between Diet and Obesity: A Focus on Dietary Protein and Estrogen Deficiency. Frontiers in Nutrition, 2017, 4, 5.	1.6	30
65	Signaling Pathways Related to Protein Synthesis and Amino Acid Concentration in Pig Skeletal Muscles Depend on the Dietary Protein Level, Genotype and Developmental Stages. PLoS ONE, 2015, 10, e0138277.	1.1	29
66	Towards microbiome-informed dietary recommendations for promoting metabolic and mental health: Opinion papers of the MyNewGut project. Clinical Nutrition, 2018, 37, 2191-2197.	2.3	29
67	Production of Indole and Indole-Related Compounds by the Intestinal Microbiota and Consequences for the Host: The Good, the Bad, and the Ugly. Microorganisms, 2022, 10, 930.	1.6	29
68	Monosodium <scp>l</scp>-glutamate and dietary fat exert opposite effects on the proximal and distal intestinal health in growing pigs. Applied Physiology, Nutrition and Metabolism, 2015, 40, 353-363.	0.9	27
69	Epithelial response to a high-protein diet in rat colon. BMC Genomics, 2017, 18, 116.	1.2	27
70	Inhibition of human colon carcinoma cell growth by ammonia: a non-cytotoxic process associated with polyamine synthesis reduction. Biochimica Et Biophysica Acta - General Subjects, 2003, 1624, 88-97.	1.1	26
71	Co-dependence of genotype and dietary protein intake to affect expression on amino acid/peptide transporters in porcine skeletal muscle. Amino Acids, 2016, 48, 75-90.	1.2	26
72	Effect of a proanthocyanidin-rich polyphenol extract from avocado on the production of amino acid-derived bacterial metabolites and the microbiota composition in rats fed a high-protein diet. Food and Function, 2019, 10, 4022-4035.	2.1	25

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73	Dietary Protein Intake Level Modulates Mucosal Healing and Mucosa-Adherent Microbiota in Mouse Model of Colitis. Nutrients, 2019, 11, 514.	1.7	25
74	Metabolic capacity for l-citrulline synthesis from ammonia in rat isolated colonocytes. Biochimica Et Biophysica Acta - General Subjects, 1999, 1427, 401-407.	1.1	24
75	Pomegranate peel extract decreases small intestine lipid peroxidation by enhancing activities of major antioxidant enzymes. Journal of the Science of Food and Agriculture, 2016, 96, 3462-3468.	1.7	24
76	Intrauterine growth restriction alters growth performance, plasma hormones, and small intestinal microbial communities in growing-finishing pigs. Journal of Animal Science and Biotechnology, 2020, 11, 86.	2.1	24
77	Beneficial Effects of an Amino Acid Mixture on Colonic Mucosal Healing in Rats. Inflammatory Bowel Diseases, 2013, 19, 2895-2905.	0.9	23
78	Both Dietary Supplementation with Monosodium L-Glutamate and Fat Modify Circulating and Tissue Amino Acid Pools in Growing Pigs, but with Little Interactive Effect. PLoS ONE, 2014, 9, e84533.	1.1	23
79	Protein quality affects bone status during moderate protein restriction in growing mice. Bone, 2014, 59, 7-13.	1.4	23
80	Mucosal healing progression after acute colitis in mice. World Journal of Gastroenterology, 2019, 25, 3572-3589.	1.4	21
81	De novo synthesis of arginine and ornithine from citrulline in human colon carcinoma cells: metabolic fate of l-ornithine. Biochimica Et Biophysica Acta - General Subjects, 1998, 1425, 93-102.	1.1	20
82	Dietary supplementation with <i>Bacillus</i> mixture modifies the intestinal ecosystem of weaned piglets in an overall beneficial way. Journal of Applied Microbiology, 2021, 130, 233-246.	1.4	20
83	Dietary supplementation with monosodium l-glutamate modifies lipid composition and gene expression related to lipid metabolism in growing pigs fed a normal- or high-fat diet. Livestock Science, 2015, 180, 247-252.	0.6	18
84	High-Protein Exposure during Gestation or Lactation or after Weaning Has a Period-Specific Signature on Rat Pup Weight, Adiposity, Food Intake, and Glucose Homeostasis up to 6 Weeks of Age. Journal of Nutrition, 2016, 146, 21-29.	1.3	18
85	Proanthocyanidin-containing polyphenol extracts from fruits prevent the inhibitory effect of hydrogen sulfide on human colonocyte oxygen consumption. Amino Acids, 2018, 50, 755-763.	1.2	18
86	Protective Effect of an Avocado Peel Polyphenolic Extract Rich in Proanthocyanidins on the Alterations of Colonic Homeostasis Induced by a High-Protein Diet. Journal of Agricultural and Food Chemistry, 2019, 67, 11616-11626.	2.4	18
87	Tolerable amounts of amino acids for human supplementation: summary and lessons from published peer-reviewed studies. Amino Acids, 2021, 53, 1313-1328.	1.2	18
88	Effects of monosodium glutamate supplementation on glutamine metabolism in adult rats. Frontiers in Bioscience - Elite, 2011, E3, 279-290.	0.9	17
89	Effects of the Sequence of Isocaloric Meals with Different Protein Contents on Plasma Biochemical Indexes in Pigs. PLoS ONE, 2015, 10, e0125640.	1.1	17
90	Effects of a daily threeâ€meal pattern with different dietary protein contents on pig growth performance, carcass and muscle quality traits. Journal of the Science of Food and Agriculture, 2018, 98, 415-421.	1.7	17

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91	Maternal High-Protein Diet during Pregnancy Modifies Rat Offspring Body Weight and Insulin Signalling but Not Macronutrient Preference in Adulthood. Nutrients, 2019, 11, 96.	1.7	17
92	Dual effects of a high-protein diet on DSS-treated mice during colitis resolution phase. American Journal of Physiology - Renal Physiology, 2016, 311, G624-G633.	1.6	16
93	Lipoâ€Protein Emulsion Structure in the Diet Affects Protein Digestion Kinetics, Intestinal Mucosa Parameters and Microbiota Composition. Molecular Nutrition and Food Research, 2018, 62, 1700570.	1.5	16
94	Effects of ?-valine on growth and polyamine metabolism in human colon carcinoma cells. Biochimica Et Biophysica Acta - General Subjects, 1998, 1379, 151-160.	1.1	15
95	Dietary Supplementation With Chinese Herbal Residues or Their Fermented Products Modifies the Colonic Microbiota, Bacterial Metabolites, and Expression of Genes Related to Colon Barrier Function in Weaned Piglets. Frontiers in Microbiology, 2018, 9, 3181.	1.5	15
96	Dietary Supplementation With Bacillus subtilis Promotes Growth and Gut Health of Weaned Piglets. Frontiers in Veterinary Science, 2020, 7, 600772.	0.9	15
97	Differential Inhibitory Effects of Three Nitric Oxide Donors on Ornithine Decarboxylase Activity in Human Colon Carcinoma Cells. Biochemical Pharmacology, 1998, 55, 1235-1239.	2.0	13
98	Comparative efficiency of microbial enzyme preparations versus pancreatin for in vitro alimentary protein digestion. Amino Acids, 2013, 44, 563-572.	1.2	13
99	In vitro impact of amino acid-derived bacterial metabolites on colonocyte mitochondrial activity, oxidative stress response and DNA integrity. Biochimica Et Biophysica Acta - General Subjects, 2019, 1863, 1292-1301.	1.1	13
100	Effect of an Elemental vs a Complex Diet on Lâ€Citrulline Production From Lâ€Arginine in Rat Isolated Enterocytes. Journal of Parenteral and Enteral Nutrition, 1997, 21, 316-323.	1.3	12
101	Molecular cloning and expression profiling of excitatory amino acid carrier 1 in suckling Huanjiang mini-piglets with large or small body weight at birth. Molecular Biology Reports, 2013, 40, 3341-3350.	1.0	12
102	Structure of protein emulsion in food impacts intestinal microbiota, caecal luminal content composition and distal intestine characteristics in rats. Molecular Nutrition and Food Research, 2017, 61, 1700078.	1.5	12
103	Dual effects of the tryptophan-derived bacterial metabolite indole on colonic epithelial cell metabolism and physiology: comparison with its co-metabolite indoxyl sulfate. Amino Acids, 2022, 54, 1371-1382.	1.2	12
104	Ontogenic expression of the amino acid transporter b^{0,+}AT in suckling Huanjiang piglets: effect of intra-uterine growth restriction. British Journal of Nutrition, 2013, 110, 823-830.	1.2	11
105	Shortâ€chain fatty acids and bile acids in human faeces are associated with the intestinal cholesterol conversion status. British Journal of Pharmacology, 2021, 178, 3342-3353.	2.7	11
106	Fate of undigested proteins in the pig large intestine: What impact on the colon epithelium?. Animal Nutrition, 2022, 9, 110-118.	2.1	10
107	Can a glutamate-enriched diet counteract glutamine depletion in endotoxemic rats?. Journal of Nutritional Biochemistry, 1999, 10, 331-337.	1.9	9
108	Colon epithelial cells luminal environment and physiopathological consequences: impact of nutrition and exercise. Nutrire, 2018, 43, .	0.3	9

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109	Dietary Supplementation With Xylo-oligosaccharides Modifies the Intestinal Epithelial Morphology, Barrier Function and the Fecal Microbiota Composition and Activity in Weaned Piglets. Frontiers in Veterinary Science, 2021, 8, 680208.	0.9	7
110	Effects of the l-tyrosine-derived bacterial metabolite p-cresol on colonic and peripheral cells. Amino Acids, 2022, 54, 325-338.	1.2	7
111	Monosodium Glutamate Supplementation Improves Bone Status in Mice Under Moderate Protein Restriction. JBMR Plus, 2019, 3, e10224.	1.3	4
112	Perinatal exposure of rats to a maternal diet with varying protein quantity and quality affects the risk of overweight in female adult offspring. Journal of Nutritional Biochemistry, 2020, 79, 108333.	1.9	4
113	Dynamic Changes of Metabolite Profiles in Maternal Biofluids During Gestation Period in Huanjiang Mini-Pigs. Frontiers in Veterinary Science, 2021, 8, 636943.	0.9	4
114	Maternal Supplementation With Different Probiotic Mixture From Late Pregnancy to Day 21 Postpartum: Consequences for Litter Size, Plasma and Colostrum Parameters, and Fecal Microbiota and Metabolites in Sows. Frontiers in Veterinary Science, 2022, 9, 726276.	0.9	3
115	Increased Susceptibility to Obesity and Glucose Intolerance in Adult Female Rats Programmed by High-Protein Diet during Gestation, But Not during Lactation. Nutrients, 2020, 12, 315.	1.7	2
116	Developmental Amino Acid Metabolism in the Pig Small and Large Intestine Epithelial Cells. , 2013, , 59-74.		2
117	Lactoferrin Supplementation during Gestation and Lactation Is Efficient for Boosting Rat Pup Development. Nutrients, 2022, 14, 2814.	1.7	2
118	Tissue-specific effect of colitis on protein synthesis in mice: impact of the dietary protein content. European Journal of Nutrition, 2021, 60, 1669-1677.	1.8	1
119	Rapeseed and milk protein induce different patterns of dietary N tissue accretion despite a similar postprandial retention in rats. FASEB Journal, 2008, 22, 312.2.	0.2	0
120	Influence of monosodium glutamate supplementation on plasma glutamine and on enzymes related to glutamine metabolism in rats. FASEB Journal, 2009, 23, 738.8.	0.2	0
121	Endotoxemia and Glutamine. , 2015, , 125-139.		0