metabolomics

	NCT Number	Title	Authors	Description	Identifier	Dates
1	pubmed:36116178	Application and prospect of quasi-targeted metabolomics in age-related hearing loss	Chen Wang Jingjing Qiu Guangjin Li Junxin Wang Dawei Liu Liang Chen Xicheng Song Limei Cui Yan Sun	Age-related hearing loss (ARHL) is a common sensory deficit in the elderly, which seriously affects physical and mental health. Therefore, understanding its underlying molecular mechanisms and taking interventions to treat ARHL are urgently needed. In our study, cochlea of 4-week-old C57BL/6 mice as the Youth group (n = 6) and 48-week-old cochlea as the Old group (n = 6) were subjected to quasi-targeted metabolomics analysis by Ultra high performance liquid chromatography-tandem mass...	pmid:36116178 doi:10.1016/j.heares.2022.108604	Sun, 18 Sep 2022 06:00:00 -0400
2	pubmed:36116280	Exploratory lipidome and metabolome profiling contributes to understanding differences in high and normal ultimate pH beef	Daniel S Antonelo Priscila R Dos Santos-Donado Christina R Ferreira Luiz A Colnago Fernanda M M Ocampos Gabriel H Ribeiro Ricardo V Ventura David E Gerrard Eduardo F Delgado Carmen J Contreras-Castillo Julio C C Balieiro	The aim of this work was to compare the lipidome and metabolome profiling in the Longissimus thoracis muscle early and late postmortem from high and normal ultimate pH (pHu) beef. Lipid profiling discriminated between high and normal pHu beef based on fatty acid metabolism and mitochondrial beta-oxidation of long chain saturated fatty acids at 30 min postmortem, and phospholipid biosynthesis at 44 h postmortem. Metabolite profiling also discriminated between high and normal pHu beef, mainly...	pmid:36116280 doi:10.1016/j.meatsci.2022.108978	Sun, 18 Sep 2022 06:00:00 -0400
3	pubmed:36116518	Cysteinyl-maresin 3 inhibits IL-13 induced airway hyperresponsiveness through alternative activation of the CysLT$_1$ receptor	Jesper Säfholm Willem Abma Lora G Bankova Joshua A Boyce Mamdoh Al-Ameri Ann-Charlotte Orre Craig E Wheelock Sven-Erik Dahlén Mikael Adner	CONCLUSIONS: MCTR3, but not LTD(4), decreased the IL-13-induced airway hyperresponsiveness by activation of the CysLT(1) receptor. The distinct actions of the two lipid mediators on the CysLT(1) receptor suggest an alternative signalling pathway appearing under inflammatory conditions, where this new action of MCTR3 implicates potential to inhibit airway hyperresponsiveness in asthma.	pmid:36116518 doi:10.1016/j.ejphar.2022.175257	Sun, 18 Sep 2022 06:00:00 -0400
4	pubmed:36116740	The mitotic regulator RCC2 promotes glucose metabolism through BACH1-dependent transcriptional upregulation of hexokinase II in glioma	Liu Tian Yubing Wang Yiwei Wang Stanley Kwok-Kuen Cheung Penelope Mei-Yu Or Chi-Wai Wong Jingyu Guan Zhining Li Weiqin Yang Yalin Tu Jing Wang Wayne Lut-Heng Ho Haiwei Gu Alfred Sze-Lok Cheng Stephen Kwok-Wing Tsui Andrew M Chan	Weighted gene co-expression network analysis (WGCNA) identified a cell-cycle module that is associated with poor prognosis and aggressiveness of glioma. One of the core members, Regulator of chromatin condensation 2 (RCC2) is a component of the chromosome passenger complex. Accumulating evidence suggests that RCC2 plays a vital role in the mitotic process and that abnormal RCC2 expression is involved in cancer development. Gene silencing experiments show that RCC2 is required for glioma cell...	pmid:36116740 doi:10.1016/j.canlet.2022.215914	Sun, 18 Sep 2022 06:00:00 -0400
5	pubmed:36117690	Editorial: Insights in red blood cell physiology: 2021	Lars Kaestner Anna Bogdanova	No abstract	pmid:36117690 pmc:PMC9471552 doi:10.3389/fphys.2022.993287	Mon, 19 Sep 2022 06:00:00 -0400

	NCT Number	Title	Authors	Description	Identifier	Dates
6	pubmed:36118007	Metabolomics investigation on antiobesity effects of *Corydalis bungeana* on high-fat high-sugar diet-induced obese rats	Minghai Fu Terigele Bao Hongzhen Yu LiSha A HuiFang Li Genna Ba Sungbo Cho	CONCLUSION: This study demonstrated weight loss and lipid lowering effects of CB on HFHS diet-induced obese rats and identified nine metabolites as potential biomarkers for evaluating the favorable therapeutic mechanism of CB via regulation of lipid and glucose metabolism.	pmid:36118007 pmc:PMC9476812 doi:10.1016/j.chmed.2022.04.001	Mon, 19 Sep 2022 06:00:00 -0400
7	pubmed:36118012	Metabonomics study of liver and kidney subacute toxicity induced by garidi-5 in rats	None Wurihan None Aodungerle None Bilige None Lili None Sirguleng None Aduqinfu Meirong Bai	CONCLUSION: The preliminarily suggested that garidi-5 can damage the liver and kidney by affecting the ABC transporters, arginine and proline metabolism, nicotinate and nicotinamide metabolism pathways, etc. Trimethylamine N-oxide, l-pyroglutamic acid, glycine-betaine, xanthine, glutathione, l-leucine, cytidine, l-arginine, spermidine, urea, 5-aminovaleric acid, creatine, l-glutamic acid, 1-methylnicotinamide and S-adenosyl-l-methionine can be used as potential biomarkers of liver and kidney...	pmid:36118012 pmc:PMC9476469 doi:10.1016/j.chmed.2022.05.003	Mon, 19 Sep 2022 06:00:00 -0400
8	pubmed:36118191	Cultivation of gastrointestinal microbiota in a new growth system revealed dysbiosis and metabolic disruptions in carcinoma-bearing rats	Betsy Anaid Peña-Ocaña Yuki Hoshiko Mayel Silva-Flores Toshinari Maeda Israel Pérez-Torres Rodolfo García-Contreras Wilbert Gutiérrez-Sarmiento Luz Hernández-Esquivel Álvaro Marín-Hernández Rosina Sánchez-Thomas Emma Saavedra José Salud Rodríguez-Zavala Ricardo Jasso-Chávez	A challenge in the study of gastrointestinal microbiota (GITm) is the validation of the genomic data with metabolic studies of the microbial communities to understand how the microbial networks work during health and sickness. To gain insights into the metabolism of the GITm, feces from healthy and sick rats with cancer were inoculated in a defined synthetic medium directed for anaerobic prokaryote growth (INC-07 medium). Significant differences between cultures of healthy and sick individuals...	pmid:36118191 pmc:PMC9479207 doi:10.3389/fmicb.2022.949272	Mon, 19 Sep 2022 06:00:00 -0400
9	pubmed:36118216	MliR, a novel MerR-like regulator of iron homeostasis, impacts metabolism, membrane remodeling, and cell adhesion in the marine Bacteroidetes *Bizionia argentinensis*	Leonardo Pellizza Magalí G Bialer Rodrigo Sieira Martín Aran	The MerR family is a group of transcriptional activators with conserved N-terminal helix-turn-helix DNA binding domains and variable C-terminal effector binding regions. In most MerR proteins the effector binding domain (EBD) contains a cysteine center suited for metal binding and mediates the response to environmental stimuli, such as oxidative stress, heavy metals or antibiotics. We here present a novel transcriptional regulator classified in the MerR superfamily that lacks an EBD domain and...	pmid:36118216 pmc:PMC9478572 doi:10.3389/fmicb.2022.987756	Mon, 19 Sep 2022 06:00:00 -0400
10	pubmed:36118235	Metabolomic analysis in spondyloarthritis: A systematic review	Tianwen Huang Yaoyu Pu Xiangpeng Wang Yanhong Li Hang Yang Yubin Luo Yi Liu	Spondyloarthritis (SpA) is a group of rheumatic diseases that cause joint inflammation. Accumulating studies have focused on the metabolomic profiling of SpA in recent years. We conducted a systematic review to provide a collective summary of previous findings on metabolomic profiling associated with SpA. We systematically searched PubMed, Medline, Embase and Web of Science for studies on comparisons of the metabolomic analysis of SpA patients and non-SpA controls. The Newcastle-Ottawa Scale...	pmid:36118235 pmc:PMC9479008 doi:10.3389/fmicb.2022.965709	Mon, 19 Sep 2022 06:00:00 -0400

	NCT Number	Title	Authors	Description	Identifier	Dates
11	pubmed:36118243	Combined urine metabolomics and 16S rDNA sequencing analyses reveals physiological mechanism underlying decline in natural mating behavior of captive giant pandas	Ming-Yue Zhang Xue-Ying Wang James Ayala Yu-Liang Liu Jun-Hui An Dong-Hui Wang Zhi-Gang Cai Rong Hou Kai-Lai Cai	The decline in natural mating behavior is the primary reason underlying in the poor population growth of captive giant pandas. However, the influencing factors and underlying mechanisms remain unclear to data. It is speculated that the decline in natural mating behavior could be related to the psychological stress caused by captivity, which restricts their free choice of mates. In order to test this hypothesis, we performed urinary metabolomics analysis using Ultra-High-Performance Liquid...	pmid:36118243 pmc:PMC9478395 doi:10.3389/fmicb.2022.906737	Mon, 19 Sep 2022 06:00:00 -0400
12	pubmed:36118247	Advances in multi-omics research on viral hepatitis	Ze Xiang Jiayuan Li Di Lu Xuyong Wei Xiao Xu	Viral hepatitis is a major global public health problem that affects hundreds of millions of people and is associated with significant morbidity and mortality. Five biologically unrelated hepatotropic viruses account for the majority of the global burden of viral hepatitis, including hepatitis A virus (HAV), hepatitis B virus (HBV), hepatitis C virus (HCV), hepatitis D virus (HDV), and hepatitis E virus (HEV). Omics is defined as the comprehensive study of the functions, relationships and roles...	pmid:36118247 pmc:PMC9478034 doi:10.3389/fmicb.2022.987324	Mon, 19 Sep 2022 06:00:00 -0400
13	pubmed:36118329	Integrated gut microbiota and metabolomic analysis reveals immunomodulatory effects of Echinacea extract and Astragalus polysaccharides	Shaochuan Li Renzhao Lin Jiaxin Chen Riaz Hussain Shiwei Zhang Yalin Su Yanzi Chan Abdul Ghaffar Dayou Shi	Immunosuppression in different animals increases the susceptibility of various infections caused by pathogenic microorganisms leading to increase risks posed by antibiotics in different animal farming sectors. Therefore, investigation of the interactions between natural medicines and the intestinal environmental ecosystem is of vital importance and crucial. This study for the first time investigated the effects of Echinacea Extract (EE) and Astragalus polysaccharide (APS) on the gut using 16S...	pmid:36118329 pmc:PMC9478787 doi:10.3389/fvets.2022.971058	Mon, 19 Sep 2022 06:00:00 -0400
14	pubmed:36118346	Stearic acid induces CCK and GLP-1 upregulation *via* GPR120/PLC-, leading to reduced appetite in Hu sheep fed with rice straw	Xi Chen Xintian Nie Huanhuan Wang Shuping Yan Yuanshu Zhang	Due to the poor palatability of straw, feeding untreated rice straw reduces ruminant feed intake, thus affecting the production efficiency of animal husbandry. However, the detailed mechanism by which straw affects ruminants' feed intake is unclear. Therefore, this study aimed to elucidate the molecular mechanism by which a rice straw (RS)-based diet affects appetite regulation in Hu sheep. We found that RS promoted the secretion of cholecystokinin (CCK) and glucagon-like peptide-1 (GLP-1) and...	pmid:36118346 pmc:PMC9478758 doi:10.3389/fvets.2022.948074	Mon, 19 Sep 2022 06:00:00 -0400
15	pubmed:36118356	House feeding pattern increased male yak fertility by improving gut microbiota and serum metabolites	Yanbin Zhu Xin Li None Lousang-Zhaxi None Suolang-Zhaxi None Suolang None Ciyang Guangming Sun None Cidan-Yangji None Basang-Wangdui	Yaks usually live in an extremely harsh natural environment resulting in low reproductive performance, so the production of yak cannot meet local demand in China. In order to solve this problem, the experiment aims to explore the effect of different feeding modes on the semen quality of male yaks, so as to provide a theoretical basis for improving the yield of yaks in Tibet. We used the combined analysis of metabolomics and microbial sequencing to explore the underlying mechanisms that affect...	pmid:36118356 pmc:PMC9478890 doi:10.3389/fvets.2022.989908	Mon, 19 Sep 2022 06:00:00 -0400

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16	pubmed:36118584	Investigation of metabolic crosstalk between host and pathogenic *Clostridioides difficile via* multiomics approaches	Ji-Eun Kwon Sung-Hyun Jo Won-Suk Song Jae-Seung Lee Hyo-Jin Jeon Ji-Hyeon Park Ye-Rim Kim Ji-Hyun Baek Min-Gyu Kim Seo-Young Kwon Jae-Seok Kim Yung-Hun Yang Yun-Gon Kim	Clostridioides difficile is a gram-positive anaerobic bacterium that causes antibiotic-associated infections in the gut. C. difficile infection develops in the intestine of a host with an imbalance of the intestinal microbiota and, in severe cases, can lead to toxic megacolon, intestinal perforation, and even death. Despite its severity and importance, however, the lack of a model to understand host-pathogen interactions and the lack of research results on host cell effects and response...	pmid:36118584 pmc:PMC9478559 doi:10.3389/fbioe.2022.971739	Mon, 19 Sep 2022 06:00:00 -0400
17	pubmed:36118771	A high-throughput lipidomics and transcriptomic approach reveals novel compounds from sugarcane linked with promising therapeutic potential against COVID-19	Muhammad Junaid Rao Muhammad Tahir Ul Qamar Dongxin Wang Qurban Ali Li Ma Shijian Han Mingzheng Duan Lihua Hu Lingqiang Wang	Sugarcane (Saccharum ssp., Poaceae) provides enormous metabolites such as sugars, lipid, and other dietary metabolites to humans. Among them, lipids are important metabolites that perform various functions and have promising pharmacological value. However, in sugarcane, few studies are focusing on lipidomics and few lipid compounds were reported, and their pharmacological values are not explored yet. The transcriptomic and widely targeted lipidomics approach quantified 134 lipid compounds from...	pmid:36118771 pmc:PMC9480494 doi:10.3389/fnut.2022.988249	Mon, 19 Sep 2022 06:00:00 -0400
18	pubmed:36118877	Molecular mediators of the association between child obesity and mental health	Evangelos Handakas Yiwen Xu Alexa Blair Segal Maria Carmen Huerta Kirsty Bowman Laura D Howe Franco Sassi Oliver Robinson	Biological mechanisms underlying the association between obesity and depression remain unclear. We investigated the role of metabolites and DNA methylation as mediators of the relationship between childhood obesity and subsequent poor mental health in the English Avon Longitudinal Study of Parents and Children. Obesity was defined according to United Kingdom Growth charts at age 7 years and mental health through the Short Mood and Feelings Questionnaire (SMFQ) completed at age 11 years....	pmid:36118877 pmc:PMC9473726 doi:10.3389/fgene.2022.947591	Mon, 19 Sep 2022 06:00:00 -0400
19	pubmed:36118990	Chronic blue light leads to accelerated aging in Drosophila by impairing energy metabolism and neurotransmitter levels	Jun Yang Yujuan Song Alexander D Law Conner J Rogan Kelsey Shimoda Danijel Djukovic Jeffrey C Anderson Doris Kretzschmar David A Hendrix Jadwiga M Giebultowicz	Blue light (BL) is becoming increasingly prevalent in artificial illumination, raising concerns about its potential health hazard to humans. In fact, there is evidence suggesting that acute BL exposure may lead to oxidative stress and death of retinal cells specialized for photoreception. On the other hand, recent studies in Drosophila melanogaster demonstrated that chronic BL exposure across lifespan leads to accelerated aging manifested in reduced lifespan and brain neurodegeneration even in...	pmid:36118990 pmc:PMC9479496 doi:10.3389/fragi.2022.983373	Mon, 19 Sep 2022 06:00:00 -0400
20	pubmed:36119070	Enhancement of liver mitochondrial complex I and energy metabolism induced by enteritis: The key role of gut microbiota derived endotoxins	Lele Fu Haokun Liu Wen Chen Jamie Marie Hooft Margareth Øverland Wanjie Cai Dong Han Xiaoming Zhu Yunxia Yang Junyan Jin Shouqi Xie	Inflammation is an energy-intensive process and the liver is a key organ in energy regulation. Since the intestine and liver exchange nutrients and metabolites, enteritis can affect the liver. To investigate the correlation between enteritis and liver metabolism, we developed an intestinal inflammation model with concentration-dependent 2,4,6-trinitrobenzene sulfonic acid (TNBS) in gibel carp (Carassius gibelio). The results showed the dysregulation of intestinal tight junction, increased...	pmid:36119070 pmc:PMC9479464 doi:10.3389/fimmu.2022.981917	Mon, 19 Sep 2022 06:00:00 -0400

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21	pubmed:36119084	Integrated multi-omics reveals the activated retinal microglia with intracellular metabolic reprogramming contributes to inflammation in STZ-induced early diabetic retinopathy	Kangjia Lv Hui Ying Guangyi Hu Jing Hu Qizhi Jian Fang Zhang	Diabetic retinopathy (DR) is the leading cause of visual impairment and blindness among working-age people. Inflammation is recognized as a critical driver of the DR process. However, the main retina-specific cell type producing pro-inflammatory cytokines and its mechanism underlying DR are still unclear. Here, we used single-cell sequencing to identify microglia with metabolic pathway alterations that were the main source of IL-1 in STZ-induced DR mice. To profile the full extent of local...	pmid:36119084 pmc:PMC9479211 doi:10.3389/fimmu.2022.942768	Mon, 19 Sep 2022 06:00:00 -0400
22	pubmed:36119530	Tissue metabolomics identified new biomarkers for the diagnosis and prognosis prediction of pancreatic cancer	Chang Liu Henan Qin Huiying Liu Tianfu Wei Zeming Wu Mengxue Shang Haihua Liu Aman Wang Jiwei Liu Dong Shang Peiyuan Yin	Pancreatic cancer (PC) is burdened with a low 5-year survival rate and high mortality due to a severe lack of early diagnosis methods and slow progress in treatment options. To improve clinical diagnosis and enhance the treatment effects, we applied metabolomics using ultra-high-performance liquid chromatography with a high-resolution mass spectrometer (UHPLC-HRMS) to identify and validate metabolite biomarkers from paired tissue samples of PC patients. Results showed that the metabolic...	pmid:36119530 pmc:PMC9479084 doi:10.3389/fonc.2022.991051	Mon, 19 Sep 2022 06:00:00 -0400
23	pubmed:36119581	Dynamic changes in metabolic and lipidomic profiles of tea plants during drought stress and re-watering	Jiazhi Shen Shuangshuang Wang Litao Sun Yu Wang Kai Fan Chen Li Hui Wang Caihong Bi Fen Zhang Zhaotang Ding	Tea (Camellia sinensis L.), as an evergreen plant, needs a humid environment. Water deficit would diminish tea yield and quality. We analyzed the dynamic changes in the metabolite and lipid profiling of tea leaves under various drought conditions and re-watering to determine the metabolic changes in tea leaves responding to drought challenges. In all, 119 metabolites showed substantial alterations in drought-stressed tea plants, including sugars and sugar alcohols, amino acids, and tricarboxylic...	pmid:36119581 pmc:PMC9478477 doi:10.3389/fpls.2022.978531	Mon, 19 Sep 2022 06:00:00 -0400
24	pubmed:36119627	Exploring chemical diversity in *Glycine max* cultivars: A multivariate approach in the search for bioactive compounds against *Spodoptera cosmioides*	Maria Clara Santana Aguiar Marcelo Mueller de Freitas Carlos Alessandro de Freitas Arlindo Leal Boiça Júnior Renato Lajarim Carneiro Maria Fátima das Graças Fernandes da Silva João Batista Fernandes Moacir Rossi Forim	Soybean crop is regulated by abiotic and biotic stresses with great potential in reducing grain yield and quality. The selection of resistant cultivars is a promising approach for mitigating these damages. We evaluated the chemical profile of Glycine max leaves from different cultivars in order to explore their defense mechanisms against Spodoptera cosmioides caterpillars. We optimized solid-liquid extraction techniques using ultrasound bath and static headspace extraction. Additionally, we...	pmid:36119627 pmc:PMC9478465 doi:10.3389/fpls.2022.987782	Mon, 19 Sep 2022 06:00:00 -0400
25	pubmed:36119634	Editorial: Discovery, biosynthesis, regulation, transport, release and engineering of plant natural products	Wei Zhou Milen I Georgiev Pan Liao	No abstract	pmid:36119634 pmc:PMC9479316 doi:10.3389/fpls.2022.1017808	Mon, 19 Sep 2022 06:00:00 -0400

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26	pubmed:36119807	A targeted metabolomics method for extra- and intracellular metabolite quantification covering the complete monolignol and lignan synthesis pathway	Andrea Steinmann Katrin Schullehner Anna Kohl Christina Dickmeis Maurice Finger Georg Hubmann Guido Jach Ulrich Commandeur Marco Girhard Vlada B Urlacher Stephan Lütz	Microbial synthesis of monolignols and lignans from simple substrates is a promising alternative to plant extraction. Bottlenecks and byproduct formation during heterologous production require targeted metabolomics tools for pathway optimization. In contrast to available fractional methods, we established a comprehensive targeted metabolomics method. It enables the quantification of 17 extra- and intracellular metabolites of the monolignol and lignan pathway, ranging from amino acids to...	pmid:36119807 pmc:PMC9474286 doi:10.1016/j.mec.2022.e00205	Mon, 19 Sep 2022 06:00:00 -0400
27	pubmed:36119867	Metabolic impact of infant formulas in young infants. An outlook from the urine metabolome	Angie Marcela Calvo Barbosa Stefany Casallas Cortes Ninna Pulido Martha Yaneth Parra Alexander Rodríguez-López Johana Guevara-Morales Olga Yaneth Echeverri-Peña	CONCLUSION: These results show the importance of understanding the metabolic impact of diet in newborn population in normal and pathological contexts.	pmid:36119867 pmc:PMC9475274 doi:10.1016/j.heliyon.2022.e10432	Mon, 19 Sep 2022 06:00:00 -0400
28	pubmed:36120310	Study on the mechanism of American ginseng extract for treating type 2 diabetes mellitus based on metabolomics	Tiantian Liu Dan Wang Xinfeng Zhou Jiayin Song Zijun Yang Chang Shi Rongshan Li Yanwen Zhang Jun Zhang Jiuxing Yan Xuehui Zhu Ying Li Min Gong Chongzhi Wang Chunsu Yuan Yan Cui Xiaohui Wu	American ginseng extract (AGE) is an efficient and low-toxic adjuvant for type 2 diabetes mellitus (T2DM). However, the metabolic mechanisms of AGE against T2DM remain unknown. In this study, a rat model of T2DM was created and administered for 28 days. Their biological (body weight and serum biochemical indicators) and pathological (pancreatic sections stained with HE) information were collected for further pharmacodynamic evaluation. Moreover, an ultra-performance liquid chromatography-mass...	pmid:36120310 pmc:PMC9479495 doi:10.3389/fphar.2022.960050	Mon, 19 Sep 2022 06:00:00 -0400
29	pubmed:36120313	Investigation of the pharmacological effect and mechanism of mountain-cultivated ginseng and garden ginseng in cardiovascular diseases based on network pharmacology and zebrafish experiments	Ting Yu Yan-Xin Zhang Xin-Juan Liu Dan-Qing Chen Dan-Dan Wang Guo-Qin Zhu Qi Gao	Ginseng (Panax ginseng C.A. Mey) is a kind of perennial herb of the Panax genus in the Araliaceae family. The secondary metabolites of mountain-cultivated ginseng (MCG) and garden ginseng (GG) vary greatly due to their different growth environments. To date, the differences in their pharmacological effects on cardiovascular diseases (CVDs) and their clinical applications remain unclear. To distinguish between the components of MCG and GG, ultra-high-performance liquid chromatography-quadrupole...	pmid:36120313 pmc:PMC9474728 doi:10.3389/fphar.2022.920979	Mon, 19 Sep 2022 06:00:00 -0400
30	pubmed:36120319	Nontargeted metabolomics to characterize the effects of isotretinoin on skin metabolism in rabbit with acne	Xiao-Liang Ou-Yang Deng Zhang Xiu-Ping Wang Si-Min Yu Zhen Xiao Wei Li Chun-Ming Li	Background: Acne vulgaris is a chronic inflammatory disease of the pilosebaceous unit. This study aimed to explore the pathogenesis of acne and the therapeutic mechanism of isotretinoin from the metabolic perspective in coal tar-induced acne in rabbits. Methods: Ultra-high performance liquid chromatography/quadrupole time-of-flight mass spectrometry (UHPLC-qTOF-MS) based metabolomics was used to identify skin metabolites in groups C (blank control), M (model group) and T (isotretinoin group)....	pmid:36120319 pmc:PMC9470959 doi:10.3389/fphar.2022.963472	Mon, 19 Sep 2022 06:00:00 -0400

	NCT Number	Title	Authors	Description	Identifier	Dates
31	pubmed:36120473	Potential biomarkers for clinical outcomes of IVF cycles in women with/without PCOS: Searching with metabolomics	Shang-Yue Guan Yuan-Yuan Liu Yuhan Guo Xiao-Xue Shen Yan Liu Hai-Xia Jin	CONCLUSIONS: The differential metabolites were mainly a variety of lipids. Some of them can predict clinical outcomes to a certain extent.	pmid:36120473 pmc:PMC9478024 doi:10.3389/fendo.2022.982200	Mon, 19 Sep 2022 06:00:00 -0400
32	pubmed:36120548	Metabolomic analysis of halotolerant endophytic bacterium *Salinivibrio costicola* isolated from *Suaeda maritima* (L.) dumort	Jaeyoun Lee Soohyun Um Seung Hyun Kim	In this study, the Salinivibrio costicola strain was isolated from Suaeda maritima (L.) Dumort. collected in Sinan, Republic of Korea. The endophytic characteristics of the Gram-negative bacterium S. costicola were verified with metagenomics sequencing of S. maritima. S. costicola was cultivated for 3 days in a liquid medium with 3.3% sea salt and analyzed the metabolites produced by the strain cultured in five different bacterial cultivation media. From the bacterial cultures,...	pmid:36120548 pmc:PMC9478568 doi:10.3389/fmolb.2022.967945	Mon, 19 Sep 2022 06:00:00 -0400
33	pubmed:36120814	Response to [177Lu]Lu-PSMA radioligand therapy in metastatic castration-resistant prostate cancer patients presenting with only lymph node metastases	Lucia Zisser Josef Yu André Oszwald Tim Wollenweber Elisabeth Kretschmer-Chott Bernhard Grubmüller Gero Kramer Shahrokh F Shariat Markus Mitterhauser Chrysoula Vraka Marcus Hacker Alexander R Haug Sazan Rasul	CONCLUSION: mCRPC patients with only lymph node metastases showed favorable survival and excellent response to PSMA-RLT, leading to transient partial remission of the disease in most of them.	pmid:36120814 doi:10.1097/MNM.0000000000001611	Mon, 19 Sep 2022 06:00:00 -0400
34	pubmed:36121239	Identification of the BolA Protein Reveals a Novel Virulence Factor in K. pneumoniae That Contributes to Survival in Host	Feiyang Zhang Xiangjin Yan Jiawei Bai Li Xiang Manlin Ding Qin Li Biying Zhang Qinghua Liang Yingshun Zhou	BolA has been characterized as an important transcriptional regulator, which is induced in the stationary phase of growth and is often associated with bacterial virulence. This study was initiated to elucidate the role of the BolA in the virulence of K. pneumoniae. Using a mouse infection model, we revealed bolA mutant strain yielded significantly decreased bacterial loads in the liver, spleen, lung, and kidney, and failed to form liver abscesses. Gene deletion demonstrated that the bolA was...	pmid:36121239 doi:10.1128/spectrum.00378-22	Mon, 19 Sep 2022 06:00:00 -0400
35	pubmed:36121331	Metabolomics-based classification reveals subtypes of hepatocellular carcinoma	Guojun Hou Dongyang Ding Tao Tian Wei Dong Dapeng Sun Gang Liu Yuan Yang Weiping Zhou	Hepatocellular carcinoma (HCC) is the second leading cause of cancer-related death, and the prognosis varies due to its high heterogeneity, systematic evaluation of HCC is mainly based on genomic and transcriptomic features, metabolomics-based classification has yet to be reported. Here we performed RNA-seq on 50 paired samples and metabolomics analysis on 72 paired samples of both normal and tumor tissues from HCC patients. Through unsupervised hierarchical cluster analysis with train and test...	pmid:36121331 doi:10.1002/mc.23455	Mon, 19 Sep 2022 06:00:00 -0400

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36	pubmed:36121345	Identification of a UDP-glucosyltransferase conferring deoxynivalenol resistance in Aegilops tauschii and wheat	Rizky Pasthika Kirana Kumar Gaurav Sanu Arora Gerlinde Wiesenberger Maria Doppler Sebastian Michel Simone Zimmerl Magdalena Matic Chinedu E Eze Mukesh Kumar Ajla Topuz Marc Lemmens Rainer Schuhmacher Gerhard Adam Brande Bh Wulff Hermann Buerstmayr Barbara Steiner	Aegilops tauschii is the diploid progenitor of the wheat D subgenome and a valuable resource for wheat breeding, yet, genetic analysis of resistance against Fusarium head blight (FHB) and the major Fusarium mycotoxin deoxynivalenol (DON) is lacking. We treated a panel of 147 Ae. tauschii accessions with either F. graminearum spores or DON solution, and recorded the associated disease spread or toxin-induced bleaching. A k-mer-based association mapping pipeline dissected the genetic basis of...	pmid:36121345 doi:10.1111/pbi.13928	Mon, 19 Sep 2022 06:00:00 -0400
37	pubmed:36121351	Clinical Microbiology in Detection and Identification of Emerging Microbial Pathogens: Past, Present and Future	Hui Wang Wenhong Zhang Yi-Wei Tang	Clinical microbiology has possessed a marvelous past, an important present and a bright future. Western medicine modernization started with the discovery of bacterial pathogens, and from then, clinical bacteriology became a cornerstone of diagnostics. Today, clinical microbiology uses standard techniques including Gram stain morphology, in vitro culture, antigen and antibody assays, and molecular biology both to establish a diagnosis and monitor the progression of microbial infections. Clinical...	pmid:36121351 doi:10.1080/22221751.2022.2125345	Mon, 19 Sep 2022 06:00:00 -0400
38	pubmed:36121471	Untargeted metabolomic analysis by ultra-high-resolution mass spectrometry for the profiling of new Italian wine varieties	Alberto Onzo Maria Assunta Acquavia Raffaella Pascale Patrizia Iannece Carmine Gaeta Filomena Lelario Rosanna Ciriello Carmen Tesoro Giuliana Bianco Angela Di Capua	The chemical composition of wine samples comprises numerous bioactive compounds responsible for unique flavor and health-promoting properties. Thus, it's important to have a complete overview of the metabolic profile of new wine products in order to obtain peculiar information in terms of their phytochemical composition, quality, and traceability. To achieve this aim, in this work, a mass spectrometry-based phytochemical screening was performed on seven new wine products from Villa D'Agri in the...	pmid:36121471 doi:10.1007/s00216-022-04314-x	Mon, 19 Sep 2022 06:00:00 -0400
39	pubmed:36121554	Morin, the PPAR agonist, inhibits Th17 differentiation by limiting fatty acid synthesis in collagen-induced arthritis	Yumeng Miao Xiaoqian Wu Xinru Xue Xingyu Ma Ling Yang Xi Zeng Yuxiao Hu Yue Dai Zhifeng Wei	T helper (Th) 17 cells highly contribute to the immunopathology of rheumatoid arthritis. Morin, a natural flavonoid, owns well anti-arthritic action but unclear effect on Th17 differentiation. This study tried to solve this issue and explore the mechanisms in view of cellular metabolism. Naïve CD4^(+) T cells were treated with anti-CD3/CD28 along with Th17-inducing cytokines. Morin was shown to block Th17 differentiation without affecting cell viability even when Foxp3 was dampened. The...	pmid:36121554 doi:10.1007/s10565-022-09769-3	Mon, 19 Sep 2022 06:00:00 -0400

	NCT Number	Title	Authors	Description	Identifier	Dates
40	pubmed:36121610	Biotechnological Applications of Probiotics: A Multifarious Weapon to Disease and Metabolic Abnormality	Rajnish Prakash Singh Afreen Shadan Ying Ma	Consumption of live microorganisms "Probiotics" for health benefits and well-being is increasing worldwide. Their use as a therapeutic approach to confer health benefits has fascinated humans for centuries; however, its conceptuality gradually evolved with methodological advancement, thereby improving our understanding of probiotics-host interaction. However, the emerging concern regarding safety aspects of live microbial is enhancing the interest in non-viable or microbial cell extracts, as...	pmid:36121610 doi:10.1007/s12602-022-09992-8	Mon, 19 Sep 2022 06:00:00 -0400
41	pubmed:36122209	Oncogenic -catenin stimulation of AKT2-CAD-mediated pyrimidine synthesis is targetable vulnerability in liver cancer	Fangming Liu Xiaochen Gai Yuting Wu Baohui Zhang Xiaoyu Wu Rongrong Cheng Bufu Tang Kezhuo Shang Na Zhao Weiwei Deng Jie Chen Zhengyi Zhang Song Gu Liang Zheng Hongbing Zhang	CTNNB1, encoding -catenin protein, is the most frequently altered proto-oncogene in hepatic neoplasms. In this study, we studied the significance and pathological mechanism of CTNNB1 gain-of-function mutations in hepatocarcinogenesis. Activated -catenin not only triggered hepatic tumorigenesis but also exacerbated Tp53 deletion or hepatitis B virus infection-mediated liver cancer development in mouse models. Using untargeted metabolomic profiling, we identified boosted de novo pyrimidine...	pmid:36122209 doi:10.1073/pnas.2202157119	Mon, 19 Sep 2022 06:00:00 -0400