metabolomics

	NCT Number	Title	Authors	Description	Identifier	Dates
1	pubmed:36058017	State-of-the-art methods for exposure-health studies: Results from the exposome data challenge event	Léa Maitre Jean-Baptiste Guimbaud Charline Warembourg Nuria Güil-Oumrait Paula Marcela Petrone Marc Chadeau-Hyam Martine Vrijheid Xavier Basagaña Juan R Gonzalez Exposome Data Challenge Participant Consortium	The exposome recognizes that individuals are exposed simultaneously to a multitude of different environmental factors and takes a holistic approach to the discovery of etiological factors for disease. However, challenges arise when trying to quantify the health effects of complex exposure mixtures. Analytical challenges include dealing with high dimensionality, studying the combined effects of these exposures and their interactions, integrating causal pathways, and integrating high-throughput...	pmid:36058017 doi:10.1016/j.envint.2022.107422	Sun, 04 Sep 2022 06:00:00 -0400
2	pubmed:36058049	Endothelial nitric oxide deficiency results in abnormal placental metabolism	Hannah George Katherine L Steeves Grace V Mercer Zahra Aghaei Céline M Schneider Lindsay S Cahill	Placental metabolism determines the amount of nutrients available to the fetus and may be altered in pregnancies complicated by fetal growth restriction (FGR). To study which metabolites are associated with FGR, we performed ^{1}H high-resolution magic angle spinning magnetic resonance spectroscopy of placental tissue from endothelial nitric oxide synthase knockout (eNOS KO) mice, a model of FGR, and C57BL/6J controls at embryonic day 17.5 (n = 24/genotype). The relative concentration of glucose...	pmid:36058049 doi:10.1016/j.placenta.2022.08.013	Sun, 04 Sep 2022 06:00:00 -0400
3	pubmed:36058168	Changes in the salivary metabolome in canine hypothyroidism: A pilot study	Luis Guillermo González-Arostegui Camila Peres Rubio Ivana Rubi Renata Bari Rafaj Jelena Goti José Joaquín Cerón Asta Tvarijonaviciute Vladimir Mrljak Alberto Muñoz-Prieto	Hypothyroidism is the most commonly diagnosed endocrine disorder in dogs. It produces a deficiency of thyroid hormones which impacts negatively the dog's quality of life. The objective of this study is to evaluate the possible changes in the salivary metabolic profile in dogs with hypothyroidism. For this purpose, targeted metabolomics analysis performed by LC/MS analysis was made in saliva samples from a group of dogs with hypothyroidism and a group of healthy dogs. Twenty-three metabolites...	pmid:36058168 doi:10.1016/j.rvsc.2022.08.012	Sun, 04 Sep 2022 06:00:00 -0400
4	pubmed:36058326	Nontargeted metabolomic analysis to unravel alleviation mechanisms of carbon nanotubes on inhibition of alfalfa growth under pyrene stress	Rui Zhao Wenjie Ren Huimin Wang Zhenxuan Li Ying Teng Yongming Luo	Carbon nanotubes have displayed great potential in enhancing phytoremediation of PAHs polluted soils. However, the response of plants to the coexistence of carbon nanotubes and PAHs and the associated influencing mechanisms remain largely unknown. Here, the effect of carbon nanotubes on alfalfa growth and pyrene uptake under exposure to pyrene was evaluated through sand culture experiment and gas chromatography time-of-flight mass spectrometer (GC-TOF-MS) based metabolomics. Results showed that...	pmid:36058326 doi:10.1016/j.scitotenv.2022.158405	Sun, 04 Sep 2022 06:00:00 -0400

	NCT Number	Title	Authors	Description	Identifier	Dates
5	pubmed:36058959	Pathogenesis, therapeutic strategies and biomarker development based on "omics" analysis related to microglia in Alzheimer's disease	Chao Gao Xin Shen Yuyan Tan Shengdi Chen	Alzheimer's disease (AD) is the most common neurodegenerative disease and the most common cause of dementia. Among various pathophysiological aspects, microglia are considered to play important roles in the pathogenesis of AD. Genome wide association studies (GWAS) showed that the majority of AD risk genes are highly or exclusively expressed in microglia, underscoring the critical roles of microglia in AD pathogenesis. Recently, omics technologies have greatly advanced our knowledge of microglia...	pmid:36058959 doi:10.1186/s12974-022-02580-1	Sun, 04 Sep 2022 06:00:00 -0400
6	pubmed:36059041	Mass spectrometry-based metabolomic signatures of coral bleaching under thermal stress	Ji-Ying Pei Wen-Feng Yu Jing-Jing Zhang Ting-Hao Kuo Hsin-Hsiang Chung Jun-Jie Hu Cheng-Chih Hsu Ke-Fu Yu	Coral bleaching caused by climate change has resulted in large-scale coral reef decline worldwide. However, the knowledge of physiological response mechanisms of scleractinian corals under high-temperature stress is still challenging. Here, untargeted mass spectrometry-based metabolomics combining with Global Natural Product Social Molecular Networking (GNPS) was utilized to investigate the physiological response of the coral species Pavona decussata under thermal stress. A wide variety of...	pmid:36059041 doi:10.1007/s00216-022-04294-y	Sun, 04 Sep 2022 06:00:00 -0400
7	pubmed:36059148	Aspirin mediates its antitumoral effect through inhibiting PTTG1 in pituitary adenoma	Borbála Szabó Kinga Németh Katalin Mészáros Lilla Krokker István Likó Éva Saski Krisztina Németh Pál Tamás Szabó Nikolette Szücs Sándor Czirják Gábor Szalóki Attila Patócs Henriett Butz	CONCLUSION: A novel regulatory network has been revealed, where Aspirin regulated global demethylation, Tp53 activity and Pttg1 expression along with decreased cell proliferation and migration. 5hmC, a novel tissue biomarker in PitNET, indicated Aspirin antitumoral effect in vitro too. Our findings suggest the potential beneficial effect of Aspirin in PitNET.	pmid:36059148 doi:10.1210/clinem/dgac496	Mon, 05 Sep 2022 06:00:00 -0400
8	pubmed:36059453	Metagenomic shotgun sequencing and metabolomic profiling identify specific human gut microbiota associated with diabetic retinopathy in patients with type 2 diabetes	Lihua Li Kaibo Yang Cong Li Han Zhang Honghua Yu Kang Chen Xiaohong Yang Lei Liu	CONCLUSIONS: Together, the metagenomic profiles of DR patients indicated different gut microbiota compositions and characteristic fecal metabolic phenotypes in DR patients. Our findings of microbial pathways therefore provided potential etiological and therapeutic targets for DR patients.	pmid:36059453 pmc:PMC9434375 doi:10.3389/fimmu.2022.943325	Mon, 05 Sep 2022 06:00:00 -0400
9	pubmed:36059915	Salivary Metabolomics of Well and Poorly Controlled Type 1 and Type 2 Diabetes	Sompop Bencharit James Carlson Warren C Byrd Escher L Howard-Williams Jackson T Seagroves Susan McRitchie John B Buse Susan Sumner	CONCLUSION: OPLS-DA demonstrates good separation of well and poorly controlled in both type 1 and type 2 diabetes. This provides evidence for developing saliva-based monitoring tools for diabetes.	pmid:36059915 pmc:PMC9433218 doi:10.1155/2022/7544864	Mon, 05 Sep 2022 06:00:00 -0400

	NCT Number	Title	Authors	Description	Identifier	Dates
10	pubmed:36059945	Combining fecal microbiome and metabolomics to reveal the disturbance of gut microbiota in liver injury and the therapeutic mechanism of shaoyao gancao decoction	Jingwei Li Min Zhao Jianming Li Miao Wang Chunjie Zhao	Chemical liver injury is closely related to gut microbiota and its metabolites. In this study, we combined 16S rRNA gene sequencing, ^{1}H NMR-based fecal metabolomics and GC-MS to evaluate the changes in gut microbiota, fecal metabolites and Short-chain fatty acids (SCFAs) in CCl(4)-induced liver injury in Sprague-Dawley rats, and the therapeutic effect of Shaoyao Gancao Decoction (SGD). The results showed that CCl(4)-induced liver injury overexpressed CYP2E1, enhanced oxidative stress, decreased...	pmid:36059945 pmc:PMC9428823 doi:10.3389/fphar.2022.911356	Mon, 05 Sep 2022 06:00:00 -0400
11	pubmed:36059946	Targeted bile acid profiles reveal the liver injury amelioration of Da-Chai-Hu decoction against ANIT- and BDL-induced cholestasis	YueHua Zhou YunZhong Zhou YiFei Li Wei Sun ZhaoLong Wang Long Chen Ye He XiaoLong Niu Jialiang Chen Guangtao Yao	Multiple types of liver diseases, particularly cholestatic liver diseases (CSLDs) and biliary diseases, can disturb bile acid (BA) secretion; however, BA accumulation is currently seen as an important incentive of various types of liver diseases' progression. Da-Chai-Hu decoction (DCHD) has long been used for treating cholestatic liver diseases; however, the exact mechanisms remain unclear. Currently, our study indicates that the liver damage and cholestasis status of the...	pmid:36059946 pmc:PMC9437253 doi:10.3389/fphar.2022.959074	Mon, 05 Sep 2022 06:00:00 -0400
12	pubmed:36059949	Metabolomics profiles in acute-on-chronic liver failure: Unveiling pathogenesis and predicting progression	Guofeng Liu Xiaoze Wang Xiaoli Fan Xuefeng Luo	Acute-on-chronic liver failure (ACLF) usually develops based on acute decompensation (AD) of cirrhosis and is characterized by intense systemic inflammation, multiple organ failure, and high short-term mortality. Validated biomarkers for the diagnosis and prognosis of ACLF remain to be clarified. Metabolomics is an emerging method used to measure low-molecular-weight metabolites and is currently frequently implemented to understand pathophysiological processes involved in disease progression, as...	pmid:36059949 pmc:PMC9437334 doi:10.3389/fphar.2022.953297	Mon, 05 Sep 2022 06:00:00 -0400
13	pubmed:36059968	Changes in serum metabolomics in idiopathic pulmonary fibrosis and effect of approved antifibrotic medication	Benjamin Seeliger Alfonso Carleo Pedro David Wendel-Garcia Jan Fuge Ana Montes-Warboys Sven Schuchardt Maria Molina-Molina Antje Prasse	Idiopathic pulmonary fibrosis (IPF) is a progressive disease with significant mortality and morbidity. Approval of antifibrotic therapy has ameliorated disease progression, but therapy response is heterogeneous and to date, adequate biomarkers predicting therapy response are lacking. In recent years metabolomic technology has improved and is broadly applied in cancer research thus enabling its use in other fields. Recently both aberrant metabolic and lipidomic pathways have been described to...	pmid:36059968 pmc:PMC9428132 doi:10.3389/fphar.2022.837680	Mon, 05 Sep 2022 06:00:00 -0400
14	pubmed:36059973	Acteoside attenuates RSV-induced lung injury by suppressing necroptosis and regulating metabolism	Xiaoying Ling Jie Zhou Tianzi Jin Weichen Xu Xun Sun Weifeng Li Yali Ding Miaomiao Liang Chenbi Zhu Peipei Zhao Chanchan Hu Bin Yuan Tong Xie Jialei Tao	Background: Necroptosis and inflammation are closely related to the pathogenesis of respiratory syncytial virus (RSV). Acteoside (AC), a natural phenylpropanoid glycoside from Kuding Tea, has significant anti-RSV effect. However, the roles of AC on RSV-induced lung necroptosis and inflammation are yet to be elucidated. Methods: The effects of AC were investigated in BALB/c mice and A549 cells. Lung histopathology was observed through H&E staining. The viral titer was assessed via plaque assay....	pmid:36059973 pmc:PMC9437591 doi:10.3389/fphar.2022.870928	Mon, 05 Sep 2022 06:00:00 -0400

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15	pubmed:36060246	Plasma metabolomics analyses highlight the multifaceted effects of noise exposure and the diagnostic power of dysregulated metabolites for noise-induced hearing loss in steel workers	Xiuzhi Zhang Ningning Li Yanan Cui Hui Wu Jie Jiao Yue Yu Guizhen Gu Guoshun Chen Huanling Zhang Shanfa Yu	Noise exposure can lead to various kinds of disorders. Noise-induced hearing loss (NIHL) is one of the leading disorders confusing the noise-exposed workers. It is essential to identify NIHL markers for its early diagnosis and new therapeutic targets for its treatment. In this study, a total of 90 plasma samples from 60 noise-exposed steel factory male workers (the noise group) with (NIHL group, n = 30) and without NIHL (non-NIHL group, n = 30) and 30 male controls without noise exposure...	pmid:36060246 pmc:PMC9437629 doi:10.3389/fmolb.2022.907832	Mon, 05 Sep 2022 06:00:00 -0400
16	pubmed:36060262	Multi-tissue metabolomic profiling reveals potential mechanisms of cocoon yield in silkworms (*Bombyx mori*) fed formula feed versus mulberry leaves	Xuehui Wu Xuedong Chen Aihong Ye Jinru Cao Ruimin He Meiliang Pan Feng Jin Huanyan Ma Wenlin Zhou	Use of formula feed (FF) for silkworms for all instars, has promoted transformation and progress in traditional sericulture. However, the cocoon yield of FF silkworms has failed to reach that of silkworms fed mulberry leaves (ML). The biological mechanisms underlying this phenomenon have not been well described. This study aimed to identify metabolic mechanisms and potential biomarkers relating to the poor cocoon yield of FF silkworms. In this study, silkworms received treatments of either ML...	pmid:36060262 pmc:PMC9428324 doi:10.3389/fmolb.2022.977047	Mon, 05 Sep 2022 06:00:00 -0400
17	pubmed:36060451	Physical Activity Behavior During the COVID-19 Outbreak in Individuals with Type 2 Diabetes: Role of Social Support and Other Covariates	Maryam Peimani Fatemeh Bandarian Nazli Namazi Bagher Larijani Ensieh Nasli-Esfahani	CONCLUSIONS: This study points to the importance of social support as an amplifier mechanism for the maintenance of physical activity behavior in individuals with T2D during critical times.	pmid:36060451 pmc:PMC9363939 doi:10.5812/ijem-120867	Mon, 05 Sep 2022 06:00:00 -0400
18	pubmed:36060656	An Untargeted Lipidomics Study of Acute Ischemic Stroke with Hyperglycemia Based on Ultrahigh-Performance Liquid Chromatography-Mass Spectrometry	Jia Guo Hailan Wang Xin Jiang Yan Wang Zhihao Zhang Qingbin Liao Jia Xu	Patients with type 2 diabetes have twice as much of the risk of acute ischemic stroke (AIS) occurrence as healthy individuals, and the AIS patients with type 2 diabetes have a higher risk of death and a poorer prognosis. This study was to investigate the interrelationship between hyperglycemia and AIS and provided a reference for blood glucose management of AIS patients. The blood glucose level of AIS patients of the present study was controlled by insulin below 180 mg/dL (standard group) and...	pmid:36060656 pmc:PMC9439902 doi:10.1155/2022/8332278	Mon, 05 Sep 2022 06:00:00 -0400
19	pubmed:36060746	Editorial: Multi-omics profiling of unique niches to reveal the microbial and metabolite composition	Roshan Kumar Vasvi Chaudhry Om Prakash	No abstract	pmid:36060746 pmc:PMC9437939 doi:10.3389/fmicb.2022.997191	Mon, 05 Sep 2022 06:00:00 -0400
20	pubmed:36060747	Probiotics or synbiotics addition to sows' diets alters colonic microbiome composition and metabolome profiles of offspring pigs	Qian Zhu Mingtong Song Md Abul Kalam Azad Yating Cheng Yating Liu Yang Liu François Blachier Yulong Yin Xiangfeng Kong	Little information exists about the effects of maternal probiotics and synbiotics addition on the gut microbiome and metabolome of offspring. The present study evaluated the effects of probiotics or synbiotics addition to sows' diets on colonic microbiota and their metabolites in offspring using 16S rRNA gene sequencing and metabolome strategy. A total of 64 pregnant Bama mini-pigs were randomly divided into control, antibiotic, probiotics, and synbiotics groups and fed the corresponding...	pmid:36060747 pmc:PMC9428521 doi:10.3389/fmicb.2022.934890	Mon, 05 Sep 2022 06:00:00 -0400

	NCT Number	Title	Authors	Description	Identifier	Dates
21	pubmed:36060752	The role and mechanisms of gut microbiota in diabetic nephropathy, diabetic retinopathy and cardiovascular diseases	Qiulan Lv Zhiyuan Li Aihua Sui Xiaomin Yang Yafei Han Ruyong Yao	Type 2 diabetes mellitus (T2DM) and T2DM-related complications [such as retinopathy, nephropathy, and cardiovascular diseases (CVDs)] are the most prevalent metabolic diseases. Intriguingly, overwhelming findings have shown a strong association of the gut microbiome with the etiology of these diseases, including the role of aberrant gut bacterial metabolites, increased intestinal permeability, and pathogenic immune function affecting host metabolism. Thus, deciphering the specific microbiota,...	pmid:36060752 pmc:PMC9433831 doi:10.3389/fmicb.2022.977187	Mon, 05 Sep 2022 06:00:00 -0400
22	pubmed:36060774	Dynamic alterations in the donkey fecal bacteria community and metabolome characteristics during gestation	Zhenwei Zhang Bingjian Huang Yonghui Wang Yandong Zhan Mingxia Zhu Changfa Wang	In donkeys, the gestation period is a dynamic and precisely coordinated process involving systemic and local alterations. Both the gut microbiota and its link with blood metabolites are thought to play significant roles in maintaining maternal health and supporting fetal development during the gestation period. This study was conducted to evaluate gut microbiota changes and the correlation with plasma metabolites in Dezhou donkeys during the gestation period. The donkeys were divided into the...	pmid:36060774 pmc:PMC9434018 doi:10.3389/fmicb.2022.927561	Mon, 05 Sep 2022 06:00:00 -0400
23	pubmed:36060786	Effects of intrinsic tannins on proteolysis dynamics, protease activity, and metabolome during sainfoin ensiling	Rong Zheng Huang Xuzhe Wang Chunhui Ma Fanfan Zhang	Condensed tannins (CT) from sainfoin have a high capacity to inhibit proteolysis. A previous study reported that CT from sainfoin can inhibit lactic acid bacteria activity and decrease ammonium-nitrogen (N) content during sainfoin ensiling; however, no study has focused on the metabolome of ensiled sainfoin. The objective of the present study was to investigate the effects of CT [following supplementation of deactivated CT with polyethylene glycol (PEG)] on protease activity, keystone bacteria,...	pmid:36060786 pmc:PMC9433569 doi:10.3389/fmicb.2022.976118	Mon, 05 Sep 2022 06:00:00 -0400
24	pubmed:36060961	Distinct impacts of fat and fructose on the liver, muscle, and adipose tissue metabolome: An integrated view	Maria João Meneses Inês Sousa-Lima Ivana Jarak João F Raposo Marco G Alves Maria Paula Macedo	CONCLUSIONS: Our data illustrate that HFat and HFruct have a negative but distinct impact on the metabolome of the liver, muscle, WAT, and BAT.	pmid:36060961 pmc:PMC9428722 doi:10.3389/fendo.2022.898471	Mon, 05 Sep 2022 06:00:00 -0400
25	pubmed:36061344	Gas chromatography-mass spectrometry (GC-MS) profiling of aqueous methanol fraction of *Plagiochasma appendiculatum* Lehm. & Lindenb. and *Sphagnum fimbriatum* Wilson for probable antiviral potential	Supriya Joshi Swati Singh Rimjhim Sharma Sharad Vats Afroz Alam	The bryophytes consist of liverworts, mosses, and hornworts, among which the liverworts are quite different in having cellular oil bodies and contain numerous terpenoids, acetogenins, quinones, phenylpropanoids, flavonoids, etc. These metabolites exhibit interesting biological activity such as allergenic response, insecticide, cytotoxic, neurotrophic, antimicrobial, and anti-HIV actions, etc. Though several bioactive compounds have been isolated in many liverworts, yet most of the liverworts...	pmid:36061344 pmc:PMC9426370 doi:10.1007/s42535-022-00458-4	Mon, 05 Sep 2022 06:00:00 -0400

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26	pubmed:36061360	UHPLC-MS/MS-Based Metabolomics and Clinical Phenotypes Analysis Reveal Broad-Scale Perturbations in Early Pregnancy Related to Gestational Diabetes Mellitus	Ting Hu Zhuoling An Han Li Yanping Liu Liangyu Xia Ling Qiu Aimin Yao Liangkun Ma Lihong Liu	Gestational diabetes mellitus (GDM) is the most common metabolic disturbance during pregnancy, with adverse effects on both mother and fetus. The establishment of early diagnosis and risk assessment model is of great significance for preventing and reducing adverse outcomes of GDM. In this study, the broad-scale perturbations related to GDM were explored through the integration analysis of metabolic and clinical phenotypes. Maternal serum samples from the first trimester were collected for...	pmid:36061360 pmc:PMC9433254 doi:10.1155/2022/4231031	Mon, 05 Sep 2022 06:00:00 -0400
27	pubmed:36061619	Nontargeted metabolomics-based multiple machine learning modeling boosts early accurate detection for citrus Huanglongbing	Zhixin Wang Yue Niu Tripti Vashisth Jingwen Li Robert Madden Taylor Shea Livingston Yu Wang	Early accurate detection of crop disease is extremely important for timely disease management. Huanglongbing (HLB), one of the most destructive citrus diseases, has brought about severe economic losses for the global citrus industry. The direct strategies for HLB identification, such as quantitative real-time polymerase chain reaction (qPCR) and chemical staining, are robust for the symptomatic plants but powerless for the asymptomatic ones at the early stage of affection. Thus, it is very...	pmid:36061619 pmc:PMC9433982 doi:10.1093/hr/uhac145	Mon, 05 Sep 2022 06:00:00 -0400
28	pubmed:36061672	Microbiome and Metabolome Analyses in Different Closed-Circulation Aquarium Systems and Their Network Visualization	Daiki Yokoyama Sosei Suzuki Taiga Asakura Jun Kikuchi	Understanding the causes of microbiome formation and its relationship to environmental conditions is important to properly maintain recirculating aquaculture systems (RASs). Although RAS has been applied to numerous fish types and environmental conditions (e.g., loading intensity), the effects of these environmental conditions (i.e., fish type and loading intensity) on microbiome composition are limitedly known. Therefore, we established three experimental aquarium tanks to explore the effects...	pmid:36061672 pmc:PMC9434780 doi:10.1021/acsomega.2c03701	Mon, 05 Sep 2022 06:00:00 -0400
29	pubmed:36061752	Accelerating the discovery of rare tree species in Amazonian forests: integrating long monitoring tree plot data with metabolomics and phylogenetics for the description of a new species in the hyperdiverse genus *Inga* Mill	Juan Ernesto Guevara Andino Consuelo Hernández Renato Valencia Dale Forrister María-José Endara	In species-rich regions and highly speciose genera, the need for species identification and taxonomic recognition has led to the development of emergent technologies. Here, we combine long-term plot data with untargeted metabolomics, and morphological and phylogenetic data to describe a new rare species in the hyperdiverse genus of trees Inga Mill. Our combined data show that Inga coleyana is a new lineage splitting from their closest relatives I. coruscans and I. cylindrica. Moreover, analyses...	pmid:36061752 pmc:PMC9435521 doi:10.7717/peerj.13767	Mon, 05 Sep 2022 06:00:00 -0400
30	pubmed:36061759	Effects of exogenous selenium application on nutritional quality and metabolomic characteristics of mung bean (*Vigna radiata* L.)	Kexin Wang Yuhao Yuan Xinyu Luo Zhaoyang Shen Yinghui Huang Haolu Zhou Xiaoli Gao	Selenium (Se) biofortification is an important strategy for reducing hidden hunger by increasing the nutritional quality of crops. However, there is limited metabolomic information on the nutritional quality of Se-enriched mung beans. In this study, physiological assays and LC-MS/MS based widely targeted metabolomics approach was employed to reveal the Se biofortification potential of mung bean by evaluating the effect of Se on mung bean nutraceutical compounds and their qualitative parameters....	pmid:36061759 pmc:PMC9433778 doi:10.3389/fpls.2022.961447	Mon, 05 Sep 2022 06:00:00 -0400

	NCT Number	Title	Authors	Description	Identifier	Dates
31	pubmed:36061787	Pharmacophylogenetic study of *Scutellaria baicalensis* and its substitute medicinal species based on the chloroplast genomics, metabolomics, and active ingredient	Jie Shen Pei Li Yue Wang Kailing Yang Yue Li Hui Yao Qiang Wang Peigen Xiao Chunnian He	The genetic relationships among the species in Scutellaria genus remain unclear because of the variation in the number of species and complex trait. The usage of S. baicalensis and its four substitute medicinal species (S. amoena, S. hypericifolia, S. likiangensis, and S. viscidula) in traditional medicines make their specialized metabolism important in China, but interspecific genetic and chemical differences have rarely been reported for these species. In this study, the chloroplast genomes of...	pmid:36061787 pmc:PMC9433114 doi:10.3389/fpls.2022.951824	Mon, 05 Sep 2022 06:00:00 -0400
32	pubmed:36061795	The pharmacophylogenetic relationships of two edible medicinal plants in the genus *Artemisia*	Zhanhu Cui Siqi Li Jiayin Chang Erhuan Zang Qian Liu Baochang Zhou Chao Li Mengzhi Li Xianzhang Huang Zhongyi Zhang Minhui Li	Artemisia argyi and Artemisia indica are edible medicinal plants belonging to the genus Artemisia in the Asteraceae. There are many similarities in their morphology, traditional curative effect, and modern pharmacological treatment. In this study, we built distribution maps of A. argyi and A. indica in China and a phylogenetic tree of common medicinal plants in Asteraceae. Then, we verified the chemical composition changes of A. argyi and A. indica via their metabolome. Traditional efficacy and...	pmid:36061795 pmc:PMC9436419 doi:10.3389/fpls.2022.949743	Mon, 05 Sep 2022 06:00:00 -0400
33	pubmed:36061805	Overexpression of leucoanthocyanidin reductase or anthocyanidin reductase elevates tannins content and confers cassava resistance to two-spotted spider mite	Qing Chen Xiao Liang Chunling Wu Ying Liu Xiaoqiang Liu Huiping Zhao Kaimian Li Songbi Chen Haiyan Wang Zhiling Han Mufeng Wu Xiaowen Yao Jun Shui Yang Qiao Xue Zhan Yao Zhang	The two-spotted spider mite (TSSM) is a destructive cassava pest. Intensive demonstration of resistance mechanism greatly facilitates the creation of TSSM-resistant cassava germplasm. Gene to metabolite network plays a crucial role in modulating plant resistance, but little is known about the genes and related metabolites which are responsible for cassava resistance to TSSM. Here, a highly resistant (HR) and a highly susceptible (HS) cassava cultivar were used, integrative and comparative...	pmid:36061805 pmc:PMC9433999 doi:10.3389/fpls.2022.994866	Mon, 05 Sep 2022 06:00:00 -0400
34	pubmed:36061807	Analysis of *Elymus nutans* seed coat development elucidates the genetic basis of metabolome and transcriptome underlying seed coat permeability characteristics	Jing Zhou Yan Li Xun Wang Yijia Liu Rakefet David-Schwartz Mira Weissberg Shuiling Qiu Zhenfei Guo Fulin Yang	The seed coat takes an important function in the life cycle of plants, especially seed growth and development. It promotes the accumulation of nutrients inside the seed and protects the seed embryo from mechanical damage. Seed coat permeability is an important characteristic of seeds, which not only affects seed germination, but also hinders the detection of seed vigor by electrical conductivity (EC) method. This research aimed to elucidate the mechanism of seed coat permeability formation...	pmid:36061807 pmc:PMC9437961 doi:10.3389/fpls.2022.970957	Mon, 05 Sep 2022 06:00:00 -0400

	NCT Number	Title	Authors	Description	Identifier	Dates
35	pubmed:36061860	Untargeted serum metabolomic profiling for early detection of *Schistosoma mekongi* infection in mouse model	Peerut Chienwichai Kathyleen Nogrado Phornpimon Tipthara Joel Tarning Yanin Limpanont Phiraphol Chusongsang Yupa Chusongsang Kanthi Tanasarnprasert Poom Adisakwattana Onrapak Reamtong	Mekong schistosomiasis is a parasitic disease caused by blood flukes in the Lao People's Democratic Republic and in Cambodia. The standard method for diagnosis of schistosomiasis is detection of parasite eggs from patient samples. However, this method is not sufficient to detect asymptomatic patients, low egg numbers, or early infection. Therefore, diagnostic methods with higher sensitivity at the early stage of the disease are needed to fill this gap. The aim of this study was to identify...	pmid:36061860 pmc:PMC9433908 doi:10.3389/fcimb.2022.910177	Mon, 05 Sep 2022 06:00:00 -0400
36	pubmed:36062104	Urine metabolomics analysis of sleep quality in deep-underground miners: A pilot study	Qiao Wen Jing Zhou Xiaoru Sun Tengfei Ma Yilin Liu Yike Xie Ling Wang Juan Cheng Jirui Wen Jiang Wu Jian Zou Shixi Liu Jifeng Liu	CONCLUSIONS: The influence of the underground environment on the human body is more likely to induce specific amino acid metabolism processes, and regulate the sleep-wake state by promoting the production of excitatory neurotransmitters. The difference in sleep quality may be related to the enhancement of glycolytic metabolism, the increase in excitatory neurotransmitters and the activation of proinflammation. L-phenylalanine, L-tyrosine and L-glutamine, Acetoacetic acid and 2-hydroxyglutaric...	pmid:36062104 pmc:PMC9437423 doi:10.3389/fpubh.2022.969113	Mon, 05 Sep 2022 06:00:00 -0400
37	pubmed:36062770	Amino Acid Levels as Potential Biomarkers of Multiple Sclerosis in Elderly Patients: Preliminary Report	ukasz Rzepiski Piotr Koliski Marcin Gackowski Marcin Koba Zdzisaw Maciejek	CONCLUSIONS: The preliminary results obtained in the study suggest that the metabolism of some amino acids is altered in patient with SPMS. We also conclude that amino acid profiling might be helpful in searching for putative biomarkers of central nervous system diseases. However, considering the multifactorial, heterogeneous, and complex nature of SPMS, further validation research involving larger study samples is required before applying these biomarkers in diagnostic practice.	pmid:36062770 doi:10.3988/jcn.2022.18.5.529	Mon, 05 Sep 2022 06:00:00 -0400
38	pubmed:36063033	Combining confocal microscopy, dSTORM, and mass spectroscopy to unveil the evolution of the protein corona associated with nanostructured lipid carriers during blood-brain barrier crossing	Matteo Battaglini Natalia Feiner Christos Tapeinos Daniele De Pasquale Carlotta Pucci Attilio Marino Martina Bartolucci Andrea Petretto Lorenzo Albertazzi Gianni Ciofani	Upon coming into contact with the biological environment, nanostructures are immediately covered by biomolecules, particularly by proteins forming the so-called "protein corona" (PC). The phenomenon of PC formation has gained great attention in recent years due to its implication in the use of nanostructures in biomedicine. In fact, it has been shown that the formation of the PC can impact the performance of nanostructures by reducing their stability, causing aggregation, increasing their...	pmid:36063033 doi:10.1039/d2nr00484d	Mon, 05 Sep 2022 06:00:00 -0400
39	pubmed:36063201	Added value of quantitative, multiparametric 18F-FDG PET/MRI in the locoregional staging of rectal cancer	Alexander Herold Christian Wassipaul Michael Weber Florian Lindenlaub Sazan Rasul Anton Stift Judith Stift Marius E Mayerhoefer Marcus Hacker Ahmed Ba-Ssalamah Alexander R Haug Dietmar Tamandl	CONCLUSION: Multiparametric PET-MRI can improve identification of locally advanced tumors and, hence, help in treatment stratification. It provides additional information on RC tumor biology and may have prognostic value.	pmid:36063201 doi:10.1007/s00259-022-05936-0	Mon, 05 Sep 2022 06:00:00 -0400

	NCT Number	Title	Authors	Description	Identifier	Dates
40	pubmed:36063263	Comparison of dual mTORC1/2 inhibitor AZD8055 and mTORC1 inhibitor rapamycin on the metabolism of breast cancer cells using proton nuclear magnetic resonance spectroscopy metabolomics	Zhitao Ni Shaolin Xu Zheng Yu Zhongjiang Ye Rongqi Li Chuang Chen Jianhui Yang Huamin Liu Ziye Zhou Xiuhua Zhang	Dual mTORC1/2 inhibitors may be more effective than mTORC1 inhibitor rapamycin. Nevertheless, their metabolic effects on breast cancer cells have not been reported. We compared the anti-proliferative capacity of rapamycin and a novel mTORC1/2 dual inhibitor (AZD8055) in two breast cancer cell lines (MDA-MB-231 and MDA-MB-453) and analyzed their metabolic effects using proton nuclear magnetic resonance (^{1}H NMR) spectroscopy-based metabolomics. We found that AZD8055 more strongly inhibited breast...	pmid:36063263 doi:10.1007/s10637-022-01268-w	Mon, 05 Sep 2022 06:00:00 -0400