

metabolomics

NCT Number		Title	Authors	Description	Identifier	Dates
1	pubmed:36087439	Tissue-specific transcriptional analysis outlines calcium-induced core metabolic changes in sweet cherry fruit	Michail Michailidis Vaia Styliani Titeli Evangelos Karagiannis Kyriaki Feidaki Ioannis Ganopoulos Georgia Tanou Anagnostis Argiriou Athanasios Molassiotis	The role of calcium in fruit ripening has been established, however knowledge regarding the molecular analysis at fruit tissue-level is still lacking. To address this, we examined the impact of foliar-applied calcium (0.5% CaCl(2)) in the ripening metabolism in skin and flesh tissues of the sweet cherry 'Tragana Edessis' fruit at the harvest stage. Exogenously applied calcium increased endogenous calcium level in flesh tissue and reduced fruit respiration rate and cracking traits. Fruit...	pmid:36087439 doi:10.1016/j.plaphy.2022.08.022	Sat, 10 Sep 2022 06:00:00 -0400
2	pubmed:36087702	Multi-omics research strategies in ischemic stroke: A multidimensional perspective	Wentao Li Chongyu Shao Huifen Zhou Haixia Du Haiyang Chen Haitong Wan Yu He	Ischemic stroke (IS) is a multifactorial and heterogeneous neurological disorder with high rate of death and long-term impairment. Despite years of studies, there are still no stroke biomarkers for clinical practice, and the molecular mechanisms of stroke remain largely unclear. The high-throughput omics approach provides new avenues for discovering biomarkers of IS and explaining its pathological mechanisms. However, single-omics approaches only provide a limited understanding of the biological...	pmid:36087702 doi:10.1016/j.arr.2022.101730	Sat, 10 Sep 2022 06:00:00 -0400
3	pubmed:36087724	Towards understanding the effect of heavy metals on mycobiont physiological condition in a widespread metal-tolerant lichen Cladonia rei	Kaja Rola Ewa Latkowska Wiktoria Ogar Piotr Osyczka	Heavy metals present in the environment can cause a variety of injury symptoms in various organisms including lichens. Most studies examined metal-induced stress under controlled laboratory conditions, and little is known about actual response of lichens in their natural habitat. This study aims to recognize the effect of heavy metal accumulation (total and intracellular) on lichen physiological and biochemical parameters specifically related to the functioning of fungal component. Cladonia rei...	pmid:36087724 doi:10.1016/j.chemosphere.2022.136365	Sat, 10 Sep 2022 06:00:00 -0400
4	pubmed:36087732	Exposure to the environmentally toxic pesticide maneb induces Parkinson's disease-like neurotoxicity in mice: A combined proteomic and metabolomic analysis	Chaoyang Liu Zehua Liu Yanyan Fang Zhen Du Zhi Yan Xin Yuan Lijun Dai Ting Yu Min Xiong Ye Tian Honghu Li Fei Li Jingdong Zhang Lanxia Meng Zhihao Wang Haiqiang Jiang Zhentao Zhang	Maneb is a typical dithiocarbamate fungicide that has been extensively used worldwide. Epidemiological evidence shows that exposure to maneb is an environmental risk factor for Parkinson's disease (PD). However, the mechanisms underlying maneb-induced neurotoxicity have yet to be elucidated. In this study, we exposed SH-SY5Y cells to maneb at environmentally relevant concentrations (0, 0.1, 5, 10 mg/L) and found that maneb dose-dependently decreased the cell viability. Furthermore, maneb (60...	pmid:36087732 doi:10.1016/j.chemosphere.2022.136344	Sat, 10 Sep 2022 06:00:00 -0400

NCT Number		Title	Authors	Description	Identifier	Dates
5	pubmed:36087794	Metabolomic Profiles Differentiate Scleroderma-PAH from Idiopathic PAH and Correspond with Worsened Functional Capacity	Mona Alotaibi Junzhe Shao Michael W Pauciulo William C Nichols Anna R Hemnes Atul Malhotra Nick H Kim Jason X-J Yuan Timothy Fernandes Kim M Kerr Laith Alshawabkeh Ankit A Desai Andreea M Bujor Robert Lafyatis Jeramie D Watrous Tao Long Susan Cheng Stephen Y Chan Mohit Jain	BACKGROUND: The prognosis and therapeutic responses are worse for pulmonary artery hypertension associated with systemic sclerosis (SSc-PAH) as compared with idiopathic pulmonary arterial hypertension (IPAH). This discrepancy could be driven by divergence in underlying metabolic determinants of disease.	pmid:36087794 doi:10.1016/j.chest.2022.08.2230	Sat, 10 Sep 2022 06:00:00 -0400
6	pubmed:36087893	Foliar application of lambda-cyhalothrin modulates root exudate profile and the rhizosphere bacteria community of dioecious Populus cathayana	Yue He Zuodong Zhu Zhenghu Zhou Tao Lu Amit Kumar Zhichao Xia	Dioecious plants show sexual differences in resistance traits to abiotic stresses. However, the effects of exogenous pesticide application on female and male plant growth and their associated adaptation mechanisms are unclear. Our study investigated the effects of the broad-spectrum pesticide lambda-cyhalothrin (-CY) on dioecious Populus cathayana growth and explored the factors through which -CY changed the rhizosphere bacterial community and physicochemical soil properties via sex-specific...	pmid:36087893 doi:10.1016/j.envpol.2022.120123	Sat, 10 Sep 2022 06:00:00 -0400
7	pubmed:36088062	A case of adult granulosa cell tumor of the ovary with long-term survival after multiple recurrences	Angel Hsin-Yu Pai Ren-Chin Wu Feng-Yuan Liu Chiao-Yun Lin Yenpo Lin Chyong-Huey Lai	CONCLUSION: There are currently no standardized tumor markers, imaging exams, or therapies for managing AGCT recurrences. Whole exome sequencing analysis of our patient suggested possible association with triosephosphate isomerase 1 mutation. Regular follow-ups with at least two types of imaging exams and indefinite hormone therapy are crucial for this patient's remission.	pmid:36088062 doi:10.1016/j.tjog.2022.06.006	Sat, 10 Sep 2022 06:00:00 -0400
8	pubmed:36088112	Bioremediation of degraded pit mud by indigenous microbes for Baijiu production	Mao-Ke Liu Cheng-Yuan Liu Xin-Hui Tian Jun Feng Xiao-Jiao Guo Ying Liu Xin-Yu Zhang Yu-Ming Tang	Microbes in pit mud play key roles in fermentation cellars for Chinese strong-flavor Baijiu (SFB) production. Pit mud, however, is frequently degraded during production, compromising the quality of the end product. In this study, a bioremediation method was used to restore degraded pit mud (DPM) using indigenous microbes derived from SFB production. Metabolomics and metagenomics were used to determine the dynamics of prokaryotes during DPM restoration and their link to SFB production. The...	pmid:36088112 doi:10.1016/j.fm.2022.104096	Sat, 10 Sep 2022 06:00:00 -0400

NCT Number		Title	Authors	Description	Identifier	Dates
9	pubmed:36088120	Developmentally related and drought-induced shifts in the kale metabolome limited Salmonella enterica association, providing novel insights to enhance food safety	Xingchen Liu Yue Li Shirley A Micallef	Plants influence epiphytic bacterial associations but Salmonella enterica colonizes crop plants commensally, raising the possibility of human foodborne illness, but the factors that mediate human pathogen-plant associations remain understudied. We evaluated whether any changes in leaf tissue and surface metabolomes with kale (Brassica oleracea Acephala group) development and in response to drought modulated Salmonella leaf association. Untargeted phytochemical profiling (including primary and...	pmid:36088120 doi:10.1016/j.fm.2022.104113	Sat, 10 Sep 2022 06:00:00 -0400
10	pubmed:36088211	Metabolomic insight into the synergistic mechanism of action of a bacterial consortium in plant growth promotion	None Priyanka Sonal Srivastava Shilpi Sharma	It has been established that a consortium consisting of compatible plant growth promoting rhizobacterial strains outperforms their individual impacts on plant attributes. While the phenomenon of synergism is extensively reported, the mechanism that underpins it is yet to be elucidated. In the present study the impact of three plant growth promoting bacteria, Azotobacter chroococcum (A), Priestia megaterium (formerly Bacillus megaterium) (B), and Pseudomonas sp. SK3 (P) was studied as a...	pmid:36088211 doi:10.1016/j.jbiosc.2022.07.013	Sat, 10 Sep 2022 06:00:00 -0400
11	pubmed:36088537	Novel CSF biomarkers of GLUT1 deficiency syndrome: implications beyond the brain's energy deficit	Tessa M A Peters Jona Merx Pieter C Kooijman Marek Noga Siebolt de Boer Loes A van Gemert Guido Salden Udo F H Engelke Dirk J Lefeber Rianne E van Outersterp Giel Berden Thomas J Boltje Rafael Artuch Leticia Pías Ángeles García-Cazorla Ivo Bari Beat Thöny Jos Oomens Jonathan Martens Ron A Wevers Marcel M Verbeek Karlien L M Coene Michèl A A P Willemsen	We used next-generation metabolic screening to identify new biomarkers for improved diagnosis and pathophysiological understanding of glucose transporter type 1 deficiency syndrome (GLUT1DS), comparing metabolic CSF profiles from 12 patients to those of 116 controls. This confirmed decreased CSF glucose and lactate levels in patients with GLUT1DS and increased glutamine at group level. We identified three novel biomarkers significantly decreased in patients, namely gluconic + galactonic acid,...	pmid:36088537 doi:10.1002/jimd.12554	Sun, 11 Sep 2022 06:00:00 -0400