(digital PCR) OR (dPCR)

	NCT Number	Title	Authors	Description	Identifier	Dates
1	pubmed:36060648	Clinical and Biological Significances of a Ferroptosis-Related Gene Signature in Lung Cancer Based on Deep Learning	Xiaosong Yang Xuanjian Hu Na Guo	Acyl-CoA synthetase long-chain family member 4 (ACSL4) has been linked to the occurrence of tumors and is implicated in the ferroptosis process. Deep learning has been applied to many areas in health care, including imaging diagnosis, digital pathology, classification of cancer, and prediction of metastasis. Nonetheless, neither the level of ACSL4 expression nor its predictive significance in non-small-cell lung cancer (NSCLC) is well understood at this time. Predictions of the ACSL4 mRNA...	pmid:36060648 pmc:PMC9436571 doi:10.1155/2022/6495301	Mon, 05 Sep 2022 06:00:00 -0400
2	pubmed:36060750	Rapid and sensitive amplicon-based genome sequencing of SARS-CoV-2	Changwoo Park Kwan Woo Kim Dongju Park Zohaib Ul Hassan Edmond Changkyun Park Chang-Seop Lee Md Tazikur Rahman Hana Yi Seil Kim	As SARS-CoV-2 variants of concern emerged, the genome sequencing of SARS-CoV-2 strains became more important. In this study, SARS-CoV-2 was sequenced using amplicon-based genome sequencing with MinION. The primer panel used in this study consisted of only 11 primer panels and the size of the amplicons was approximately 3 kb. Full genome sequences were obtained with a hundred copies of the SARS-CoV-2 genome, and 92.33% and 75.39% of the genome sequences were obtained with 10 copies of the...	pmid:36060750 pmc:PMC9428490 doi:10.3389/fmicb.2022.876085	Mon, 05 Sep 2022 06:00:00 -0400
3	pubmed:36061433	An integrated digital PCR system with high universality and low cost for nucleic acid detection	Kangning Wang Bin Li Yu Guo Yanqi Wu Yan Li Wenming Wu	Digital PCR is the most advanced PCR technology. However, due to the high price of the digital PCR analysis instrument, this powerful nucleic acid detection technology is still difficult to be popularized in the general biochemistry laboratory. Moreover, one of the biggest disadvantages of commercial digital PCR systems is the poor versatility of reagents: each instrument can only be used for a few customized kits. Herein, we built a low-cost digital PCR system. The system only relies on...	pmid:36061433 pmc:PMC9437218 doi:10.3389/fbioe.2022.947895	Mon, 05 Sep 2022 06:00:00 -0400
4	pubmed:36061813	*Calmodulin* and *calmodulin-like* gene family in barley: Identification, characterization and expression analyses	Kangfeng Cai Liuhui Kuang Wenhao Yue Shanggeng Xie Xue Xia Guoping Zhang Junmei Wang	Calmodulin (CaM) and calmodulin-like (CML) proteins are Ca^(2+) relays and play diverse and multiple roles in plant growth, development and stress responses. However, CaM/CML gene family has not been identified in barley (Hordeum vulgare). In the present study, 5 HvCaMs and 80 HvCMLs were identified through a genome-wide analysis. All HvCaM proteins possessed 4 EF-hand motifs, whereas HvCMLs contained 1 to 4 EF-hand motifs. HvCaM2, HvCaM3 and HvCaM5 coded the same polypeptide although they...	pmid:36061813 pmc:PMC9439640 doi:10.3389/fpls.2022.964888	Mon, 05 Sep 2022 06:00:00 -0400
5	pubmed:36061877	Clinical evaluation of bacterial DNA using an improved droplet digital PCR for spontaneous bacterial peritonitis diagnosis	Hao-Xin Wu Wei Hou Wei Zhang Zheng Wang Shan Guo De-Xi Chen Zhen Li Feili Wei Zhongjie Hu	CONCLUSION: BactDNA detection can be used to further enhance the diagnostic efficiency of SBP. Therefore, the application of ddPCR assay not only can be used to discriminate and quantify bacteria but also can be used in the clinical assessment for antibiotics treatment.	pmid:36061877 pmc:PMC9433567 doi:10.3389/fcimb.2022.876495	Mon, 05 Sep 2022 06:00:00 -0400

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6	pubmed:36062346	Evaluation of two new highly multiplexed PCR assays as an alternative to next-generation sequencing for IDH1/2 mutation detection	Loetitia Favre Nouhoum Sako Sihem Tarfi Violaine Tran Quang Corine Joy Aurélie Dupuy Erell Guillerm Philippe Gaulard Orianne Wagner-Ballon Anaïs Pujals Ivan Sloma	IDH1 and IDH2 somatic mutations have been identified in solid tumors and blood malignancies. The development of inhibitors of mutant IDH1 and IDH2 in the past few years has prompted the development of a fast and sensitive assay to detect IDH1^(R132) , IDH2^(R140) and IDH2^(R172) mutations to identify patients eligible for these targeted therapies. This study aimed to compare two new multiplexed PCR assays - an automated quantitative PCR (qPCR) on the PGX platform and a droplet digital PCR...	pmid:36062346 doi:10.1002/1878-0261.13311	Mon, 05 Sep 2022 06:00:00 -0400
7	pubmed:36062504	Detection of clinically-relevant EGFR variations in de novo small cell lung carcinoma by droplet digital PCR	Rajesh Venkataram Vijith Shetty Kishan Prasad Sonam Kille Teerthanath Srinivas Anirban Chakraborty	Targeted therapy that utilizes tyrosine kinase inhibitors (TKIs), specific to epidermal growth factor receptors (EGFR) has changed the landscape of treatment of non-small cell lung cancer (NSCLC). The success or failure of this approach depends on presence of certain variations in the tyrosine kinase domain of EGFR gene. Generally, patients diagnosed with Small cell lung cancer (SCLC) are considered ineligible for TKI therapy owing to the absence of EGFR variations. . However, there is evidence...	pmid:36062504 doi:10.4081/monaldi.2022.2280	Mon, 05 Sep 2022 06:00:00 -0400