high throughput screening

	NCT Number	Title	Authors	Description	Identifier	Dates
1	pubmed:36102902	High-Throughput Neurite Outgrowth Assay Using GFP-Labeled iPSC-Derived Neurons	Li Zhang Shuaizhang Li Menghang Xia	The potential neurotoxicity from an increasing number of drugs and untested environmental chemicals creates a need to develop reliable and efficient in vitro methods for identifying chemicals that may adversely affect the nervous system. An important process in neurodevelopment is neurite outgrowth, which can be affected by developmental neurotoxicity. Currently, neurite outgrowth assays rely mainly on staining, which requires multiple sample processing steps, particularly washing steps, that...	pmid:36102902 doi:10.1002/cpz1.542	Wed, 14 Sep 2022 06:00:00 -0400
2	pubmed:36109140	Targeting FoxO transcription factors with HDAC inhibitors for the treatment of osteoarthritis	Hiroki Ohzono Yiwen Hu Keita Nagira Haruhisa Kanaya Naoki Okubo Merissa Olmer Masafumi Gotoh Ichiro Kurakazu Yukio Akasaki Manabu Kawata Emily Chen Alan C Chu Kristen A Johnson Martin K Lotz	CONCLUSION: Panobinostat has a clinically relevant activity profile and is a candidate for OA symptom and structure modification.	pmid:36109140 doi:10.1136/ard-2021-221269	Thu, 15 Sep 2022 06:00:00 -0400
3	pubmed:36109584	A modern automated patch-clamp approach for high throughput electrophysiology recordings in native cardiomyocytes	Fitzwilliam Seibertz Markus Rapedius Funsho E Fakuade Philipp Tomsits Aiste Liutkute Lukas Cyganek Nadine Becker Rupamanjari Majumder Sebastian Clauß Niels Fertig Niels Voigt	Crucial conventional patch-clamp approaches to investigate cellular electrophysiology suffer from low-throughput and require considerable experimenter expertise. Automated patch-clamp (APC) approaches are more experimenter independent and offer high-throughput, but by design are predominantly limited to assays containing small, homogenous cells. In order to enable high-throughput APC assays on larger cells such as native cardiomyocytes isolated from mammalian hearts, we employed a fixed-well APC...	pmid:36109584 doi:10.1038/s42003-022-03871-2	Thu, 15 Sep 2022 06:00:00 -0400
4	pubmed:36109626	A droplet-based microfluidic platform enables high-throughput combinatorial optimization of cyanobacterial cultivation	Jialan Cao David A Russo Ting Xie G Alexander Groß Julie A Z Zedler	Cyanobacteria are fast-growing, genetically accessible, photoautotrophs. Therefore, they have attracted interest as sustainable production platforms. However, the lack of techniques to systematically optimize cultivation parameters in a high-throughput manner is holding back progress towards industrialization. To overcome this bottleneck, here we introduce a droplet-based microfluidic platform capable of one- (1D) and two-dimension (2D) screening of key parameters in cyanobacterial cultivation....	pmid:36109626 doi:10.1038/s41598-022-19773-6	Thu, 15 Sep 2022 06:00:00 -0400

	NCT Number	Title	Authors	Description	Identifier	Dates
5	pubmed:36109834	High-throughput screening of optimal process conditions using model predictive control	Niels Krausch Jong Woo Kim Tilman Barz Sergio Lucia Sebastian Groß Matthias C Huber Stefan M Schiller Peter Neubauer Mariano Nicolas Cruz Bournazou	Modern biotechnological laboratories are equipped with advanced parallel mini-bioreactor facilities that can perform sophisticated cultivation strategies (e.g. fed-batch or continuous) and generate significant amounts of measurement data. These systems require not only optimal experimental designs that find the best conditions in very large design spaces, but also algorithms that manage to operate a large number of different cultivations in parallel within a well-defined and tightly constrained...	pmid:36109834 doi:10.1002/bit.28236	Thu, 15 Sep 2022 06:00:00 -0400
6	pubmed:36110374	Finding the Perfect Fit: Conformational Biosensors to Determine the Efficacy of GPCR Ligands	Keith M Olson Andra Campbell Andrew Alt John R Traynor	G protein-coupled receptors (GPCRs) are highly druggable targets that adopt numerous conformations. A ligand's ability to stabilize specific conformation(s) of its cognate receptor determines its efficacy or ability to produce a biological response. Identifying ligands that produce different receptor conformations and potentially discrete pharmacological effects (e.g., biased agonists, partial agonists, antagonists, allosteric modulators) is a major goal in drug discovery and necessary to...	pmid:36110374 pmc:PMC9469492 doi:10.1021/acsptsci.1c00256	Fri, 16 Sep 2022 06:00:00 -0400
7	pubmed:36110843	A high-throughput screening RT-qPCR assay for quantifying surrogate markers of immunity from PBMCs	Daniel J Browne Ashton M Kelly Jamie L Brady Denise L Doolan	Immunoassays that quantitate cytokines and other surrogate markers of immunity from peripheral blood mononuclear cells (PBMCs), such as flow cytometry or Enzyme-Linked Immunosorbent Spot (ELISpot), allow highly sensitive measurements of immune effector function. However, those assays consume relatively high numbers of cells and expensive reagents, precluding comprehensive analyses and high-throughput screening (HTS). To address this issue, we developed a sensitive and specific reverse...	pmid:36110843 pmc:PMC9469018 doi:10.3389/fimmu.2022.962220	Fri, 16 Sep 2022 06:00:00 -0400
8	pubmed:36111767	Modelling Parkinson's Disease in C. elegans: Strengths and Limitations	Liang Ma Xi Li Chengyu Liu Wanyao Yan Jinlu Ma Robert B Petersen Anlin Peng Kun Huang	Parkinson's disease (PD) is a common neurodegenerative disease that affects the motor system and progressively worsens with age. Current treatment options for PD mainly target symptoms, due to our limited understanding of the etiology and pathophysiology of PD. A variety of preclinical models have been developed to study different aspects of the disease. The models have been used to elucidate the pathogenesis and for testing new treatments. These models include cell models, non-mammalian models,...	pmid:36111767 doi:10.2174/1381612828666220915103502	Fri, 16 Sep 2022 06:00:00 -0400
9	pubmed:36112310	In Situ Inhibitor Synthesis and Screening by Fluorescence Polarization: An Efficient Approach for Accelerating Drug Discovery	Zhihong Li Yue Wu Shuai Zhen Kaijun Su Linjian Zhang Fulai Yang Michael McDonough Christopher Schofield Xiaojin Zhang	Target-directed dynamic combinatorial chemistry has emerged as a useful tool for hit identification, but has not been widely used, in part due to challenges associated with analyses involving complex mixtures. We describe an operationally simple alternative: in situ inhibitor synthesis and screening (ISISS), which links high-throughput bioorthogonal synthesis with screening for target binding by fluorescence. We exemplify the ISISS method by showing how coupling screening for target binding by...	pmid:36112310 doi:10.1002/anie.202211510	Fri, 16 Sep 2022 06:00:00 -0400

	NCT Number	Title	Authors	Description	Identifier	Dates
10	pubmed:36112591	[High throughput embryonic zebrafish test with automated dechorionation to evaluate nanomaterial toxicity](#)	Chance M Carbaugh William H van der Schalie Mark W Widder	Engineered nanomaterials pose occupational health and environmental concerns as they possess unique physical and chemical properties that can contribute to toxicity. High throughput toxicity screening methods are needed to address the increasing number of nanomaterials in production. Here we used a zebrafish photomotor response (PMR) test to evaluate a set of fifteen nanomaterials with military relevance. Automated dechorionation of zebrafish embryos was used to enhance nanomaterials...	pmid:36112591 doi:10.1371/journal.pone.0274011	Fri, 16 Sep 2022 06:00:00 -0400
11	pubmed:36112689	[Organic electronic transmembrane device for hosting and monitoring 3D cell cultures](#)	Charalampos Pitsalidis Douglas van Niekerk Chrysanthi-Maria Moysidou Alexander J Boys Aimee Withers Romane Vallet Róisín M Owens	3D cell models have made strides in the past decades in response to failures of 2D cultures to translate targets during the drug discovery process. Here, we report on a novel multiwell plate bioelectronic platform, namely, the e-transmembrane, capable of supporting and monitoring complex 3D cell architectures. Scaffolds made of PEDOT:PSS [poly(3,4-ethylenedioxythiophene):polystyrene sulfonate] are microengineered to function as separating membranes for compartmentalized cell cultures, as well as...	pmid:36112689 doi:10.1126/sciadv.abo4761	Fri, 16 Sep 2022 06:00:00 -0400